

Article

# From Resistance to Creation: Socio-Environmental Activism in Chile's "Sacrifice Zones"

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**Abstract:** The last decade has witnessed the proliferation of socio-environmental conflicts across Chile, characterized by the resistance of local communities against extractive and industrial projects. Increasingly, these conflicts have revealed the multiple injustices experienced by communities living in sacrifice zones. A sacrifice zone can be defined as a segregated place where the quality of life of its communities is compromised in the name of progress and capital accumulation. By focusing on socio-environmental struggles taking place in Quintero-Puchuncaví Bay, Coronel Bay, and Hualpén-Talcahuano Bay, three highly polluted and industrialized areas in Chile, this article explores the views and practices developed by grassroots activists in their quest for resisting and moving beyond the capitalist and extractivist model of development. By conducting a thematic analysis of semi-structured interviews with 32 socio-environmental activists, this qualitative study provides a detailed account of how they understand a sacrifice zone and resist in these areas. Furthermore, it describes alternatives to capitalist and extractivist development envisioned and enacted by grassroots movements, expanding on the notions of territorial sovereignty and "buen vivir".

**Keywords:** socio-environmental struggles; sacrifice zones; "buen vivir" Chile; extractivism



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## 1. Introduction

In the last decade, a growing number of socio-environmental conflicts have spread across Chile, opening up the debate about the deep inequalities observed both in the access and control of the natural commons [1] and in the distribution of the damages triggered by ecological degradation. Far from being an isolated process, the multiplication of socio-environmental struggles in Chile is part of a broader tendency observed in most Latin American countries, where local communities have systematically resisted the proliferation of extractive industries, investments in the energy sectors, infrastructure and real estate, and the privatization of their territories and land.

While some of these conflicts have been prompted by the threat of expropriation of the natural commons and the consequences that these projects might have on nature and local communities, others have arisen as a desperate attempt to stop the industrial "externalities" that have for decades jeopardized the health and quality of life of local residents. Well aware of the disparities in the distribution of environmental burdens, several movements and grassroots organizations have brought to the fore the multiple injustices experienced by communities living in "sacrifice zones". A "sacrifice zone" can be understood as a place "where residents suffer the devastating environmental health consequences of living downwind and downstream from major pollution hotspots—large industrial complexes of extraction, refining, energy generation, and petrochemical production" [2] (p. 371).

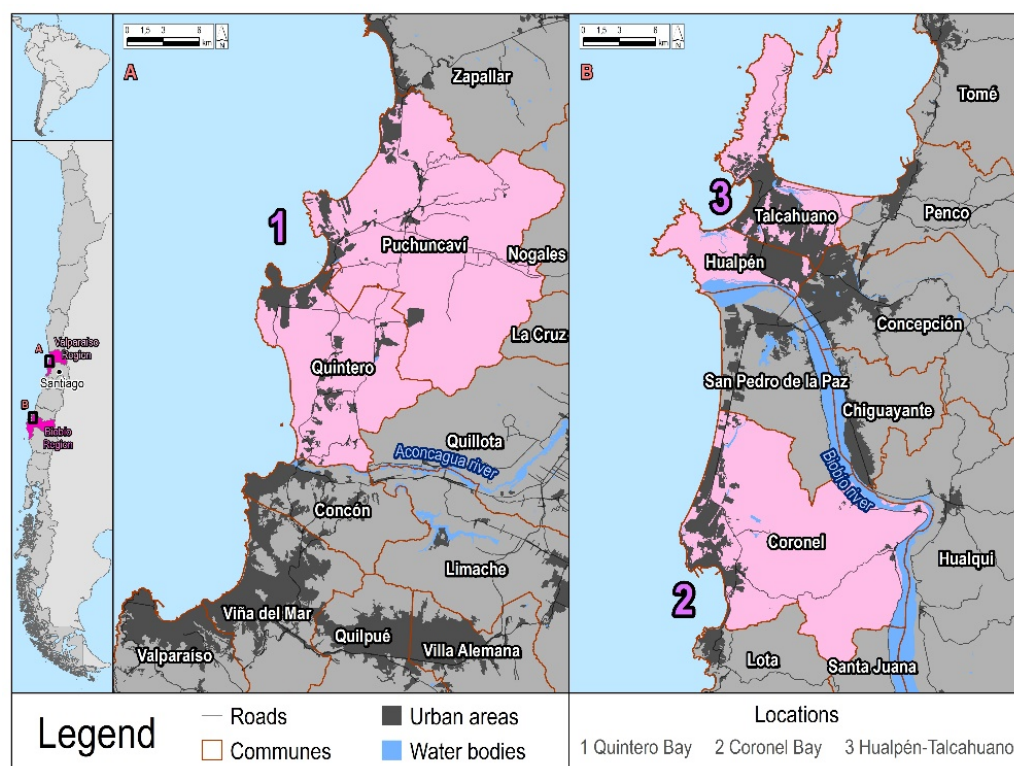
The term “sacrifice zone” was initially used during the Cold War by military and government officials from the United States to describe the territories that were environmentally destructed due to nuclear production and testing [3]. At present, this concept has been used worldwide to name areas exposed to hazardous levels of pollution and environmental degradation, where communities and entire local ecosystems have been sacrificed in the name of “economic growth” or “national prosperity” [3–5]. Hence, a sacrifice zone embodies a form of destructive spatial violence that is justified for the expected returns:

Something has been sacrificed, for the gain of something else ( . . . ) The land may have seemed barren, useless, uninhabited, strategically unimportant, insignificant; its destruction, conversely, may have ensured a return in wealth, national security, energy independence, military advantage, the good of the many . . . [6] (p. 599)

In Chile, the sacrifice of various zones in the name of progress, economic growth, development, and energy independence, among others, has been a long-running strategy for the strengthening of neoliberal economic development. However, commencing in 2015, the concept of “sacrifice zones” became more popular in Chile when the mayors of five municipalities (Huasco, Coronel, Quintero, Puchuncaví, and Tocopilla) joined in a well-known campaign demanding an urgent response to the socio-environmental crisis experienced in their districts. The progressive degradation of these places in the name of “development” and “progress” and the threat of other territories being transformed into new sacrifice zones have also triggered outbursts of indignation and increasing grassroots campaigns across the country.

Interestingly, several grassroots socio-environmental campaigns taking place in Chile tend to stress the linkages between the injustices experienced by local dwellers living in sacrifice zones and the extractivist and capitalist model of development. Recent studies in Latin America [1,7,8] and Chile [9,10] recognize this trend, as they have reported well-articulated structural analyses produced by socio-environmental movements. In the view of these collective actors, capitalism plays an important role in the reproduction of injustice and ecological degradation. At the local level, this is observed in the ways that extractive and industrial companies operate. As their goal is economic growth and capital accumulation, they behave as though the natural commons were infinite, paying little attention to the social and environmental impacts caused by their operations [11]. Drawing on this structural analysis, several grassroots socio-environmental movements engage in two different, albeit interconnected, tasks. On the one hand, they struggle against current extractive and industrial projects in their local areas. On the other hand, they seek to create alternatives to the existing model of development that sustains these large-scale productive activities [1,8].

By focusing on socio-environmental struggles taking place in three Chilean coastal areas (Figure 1), this article seeks to explore the analyses and practices developed by grassroots movements to tackle the proliferation of extractive and industrial projects in their territories. In doing so, it discusses the views and practices of “buen vivir” developed by socio-environmental movements as alternatives to extractivist development. Quintero-Puchuncaví Bay, Coronel Bay, and Hualpén-Talcahuano Bay are the three geographical areas where the conflicts analyzed in this paper are taking place. In Quintero-Puchuncaví Bay and Coronel Bay, the local councils openly refer to their geographical areas as “sacrifice zones”, as a discursive strategy to demand action from the central government [10]. This is not the case of Hualpén-Talcahuano Bay, an area that has also experienced the degradation of its environment and population’s health due to toxic industrial activities.



**Figure 1.** Three sacrifice zones in Chile: Quintero-Puchuncaví, Coronel, and Hualpén-Talcahuano bays. Source: Own elaboration based on Chilean Environmental Superintendence (Superintendencia de Medio Ambiente—SMA).

Drawing on a qualitative approach to inquiry, this paper provides a detailed account of local environmental struggles in Chile and their views and strategies to move beyond extractivisms and toxic industrial complexes. How do these local movements understand a sacrifice zone and resist in these areas? What are the alternatives to capitalist and extractive development envisioned by grassroots movements? To what extent do these grassroots movements create their own versions of “buen vivir”/living well? These are the questions that we address in this article. To answer these questions, we present the theoretical background and methodology used in this research in the next sections, followed by an overview of the three areas studied. We then focus on the empirical findings. These have been divided into three main sub-sections: (1) sacrifice zones and the critique of extractivist development, (2) collective strategies of resistance, and (3) territorial sovereignty and “buen vivir” as alternatives to extractivist development. Finally, we present the conclusions from the study and suggest future work in the field.

## 2. Theoretical Background

Recently, the outbreak of environmental conflicts throughout Latin America has occurred simultaneously with the consolidation of an extractive and export-oriented economic paradigm. Considering this context, some studies from the region [12–14] have favored traditional social movement approaches to understand these conflicts. Such is the case of the Resource Mobilization Theory [15] and the Political Opportunities Framework [16], which focused on groups’ resources, incentives, and opportunities leading to collective action [15,16]. From a different angle, recent scholarship understands the emergence of socio-environmental conflicts as being due to problems of governance [17,18], highlighting policies’ failures in the distribution of revenues [19] or conflict management difficulties [20].

Although these approaches have been widely applied, they fail to analyze the structural roots of socio-environmental conflicts and are unable to provide an integrative synthesis of both natural and social processes. In an attempt to overcome these flaws, this article

follows a political ecology approach [21,22], primarily informed by Latin American scholarship [1,23–26]. Moreover, it engages with the work of some heterodox Marxists [27–30] to frame the structural roots of socio-environmental conflicts.

### 2.1. *Neo-Extractivism in Latin America and the Sacrifice of Local Communities*

The consolidation of an extractive economic paradigm in Latin America responds to a renewed phase of capitalist expansion that uses dispossession, enclosure, proletarianization, and commodification as core strategies for capital accumulation [27,31]. Following the insights of heterodox Marxists [1,27–30], the features defining the current stage of capitalism resemble the notion of “primitive accumulation” coined by Marx long ago. In Marx’s work, primitive accumulation refers to the “historical process of divorcing the producer from the means of production” [32] (pp. 874–875). The process of land enclosure in England is one of the most well-known examples of primitive accumulation, although not the only one. The long-lasting exploitation of Asians, Africans, and American Indians, and the manipulation of money by the state in the form of taxes, international credit, and public debt, are other examples of primitive accumulation mentioned in Marx’s analysis [29,32]. These similarities support the understanding of primitive accumulation as an ongoing process rather than a one-time moment from the past. David Harvey has coined the concept “accumulation by dispossession” as an attempt to name this contemporary version of primitive accumulation and to stress how its features have remained powerfully present until now [27]. A core mechanism for guaranteeing continued accumulation has been the predatory exploitation of nature, mostly led by large corporate firms. As Harvey points out,

The escalating depletion of the global environmental commons (land, air, water) and proliferating habitat degradations that preclude anything but capital-intensive modes of agricultural production have likewise resulted from the wholesale commodification of nature in all its forms [27] (p.148)

The depletion of the natural commons in Latin America has a clear correlation with the extractivist paradigm of development and its intensive implementation across the region [23,33]. Although extractivism can be traced back to the conquest and colonization of the Americas [34], neo-extractivism has been used in recent scholarship [24–26] to define a contemporary mode of accumulation based on the overexploitation of nature at large-scale, and “the expansion of capital’s frontiers toward territories previously considered non-productive” [25] (p. 66). Neo-extractivism has thus operated as a private-public mechanism of colonial and neo-colonial appropriation, and it refers to “those activities which remove large quantities of natural resources that are not processed (or processed only to a limited degree), especially for export” [35] (p. 62).

Following Latin American scholarship [1,24,25], a more encompassing definition of contemporary neo-extractivism has been advanced, where extractivism is not narrowed to the extraction of minerals, gas, and oil. For this scholarship, extractivism also refers to the extraction of renewable resources, such as forestry, industrial agriculture, biofuel production, fishing, and pisciculture. It also includes mass tourism and infrastructure projects seeking to support extractive investments, such as roads, ports, gas terminals, and dams, among others. Adding to this more comprehensive definition of extractivism, Latin American scholars from the field of urban studies have broadened the concept even further, including real estate developments as an emerging expression of urban extractivism [36,37]. In this paper, we engage with a comprehensive definition of extractivism, as suggested by the aforementioned scholarship, understanding it as a model that includes a wide range of productive activities, from those oriented towards the extraction of the natural commons, to those seeking to produce the energy and infrastructure required for the extractive industry, and even those linked to mass tourism or real estate developments. These also reproduce strategies of the natural commons’ expropriation and dispossession. Moreover, due to the broad understanding of extractivism, we agree with Latin American political ecologists [7,38] who have favored the notion of “extractivisms” in the plural form,



as they involve multiple extractive activities oriented towards exporting commodities for global markets, such as forestry, mining, agribusiness, and fishery, among others.

Overall, the new cycle of extractivisms in Latin America has been characterized by the deepening of expropriation, commodification, and depredation of the region's natural commons and the accelerated dispossession and displacement of local communities from their territories [23,33,39]. Furthermore, by prioritizing the creation of export-oriented enclaves over endogenous productive chains, this model has reproduced a neo-colonial logic, manifested in a strong dependency from international markets and in an escalating social fragmentation experienced by various Latin American communities [9,40].

## 2.2. *Extractivisms and Environmental Policy in Neoliberal Chile*

In Chile, the successive democratic governments have efficiently implemented a neoliberal, extractive, and export-oriented model of development. The maintenance of the development model forged during the authoritarian regime had an important effect on the creation of the new national environmental legislation. Approved in 1994, Law 19.300 established the general legal framework for environmental matters in Chile. This framework drew on environmental policies from North America and western European countries, but unlike these cases, the Chilean version did not provide substantive regulatory authority [41]. This difference exemplifies the legacy of the dictatorship over Chilean environmental policy. The role of the state is kept to a minimum. Thus, funding for environmental institutions is limited, as well as their power to regulate, evaluate, and restrict private investments to enforce environmental standards [41,42]. In line with the neoliberal ethos inherited by the dictatorship and preserved to date, the collaboration between Chilean government bodies and the corporate sector is strongly encouraged. These structural incentives, as a consequence, “incline the state to side directly with business and development interests, to the detriment of environmental protection” [42] (p. 349).

The neoliberal and extractive-oriented model of development, however, has not remained unchallenged. Several grassroots movements and local campaigns across the country are raising awareness about the marketization of the natural commons and increasing environmental injustices experienced by local communities [43]. These socio-environmental struggles are taking place simultaneously in urban [9] and rural areas [44,45]. However, given that the majority of the population lives in cities, it is in these areas that environmental conflicts have become more visible. At the same time, due to the strategic role of the sea for the extractive sector and Chile's long coastline, several of these battles occur in highly populated coastal cities, where environmental hazards are becoming increasingly prominent [10]. Because of the progressive socio-environmental degradation of these areas, or the threat of their forfeiture, several movements and grassroots organizations have brought to public debate the urgent need to stop the proliferation of sacrifice zones across the country [46].

## 2.3. *Socio-Environmental Conflicts from the Lenses of Political Ecology*

Latin America has become a seedbed for the emergence of socio-environmental movements, resisting extractive-oriented and industrial projects that threaten the balance of ecosystems, culture, and livelihoods of local communities. Political ecology [21,22] is a framing that sheds light on the understanding of these conflicts as it advances an integrative synthesis of both natural and social processes. As a trans-disciplinary approach, political ecology focuses on the power dynamics around nature in terms of its social construction, appropriation, and control by different socio-political agents [47]. By stressing the political dimension of environmental issues, this approach enables us to analyze the clash of interests, norms, and conflicting values over the environment among groups or individuals, leading to social antagonism and a fight for power [48].

These conflicts usually carry power imbalances, involving “the rich or powerful against poor people or people without power within regions, countries and at the multina-

tional level” [49] (p. 5). The power differences are observed in the capacity of particular social actors to enforce productive or investment decisions over a region and to define the languages of valuation supporting those decisions [50]. Following Joan Martínez Alier’s work, languages of valuation refer to rationalities, cosmologies, and/or philosophies that give cultural and historical meaning to both territories’ natural commons and the practices drawing on them. Correspondingly, the valuation languages from local communities and environmental defenders, on the one hand, and private companies and the state, on the other hand, differ substantially, especially regarding the ways they assess social, cultural, and environmental costs of an extractive or industrial project [22].

Drawing on Latin American socio-environmental struggles, some authors [35,51,52] broaden this idea, claiming that such conflicts are not exclusively about environmental inequalities and languages of valuation, but about a wide array of sensibilities, knowledges, spiritual views, and ontologies. In some cases, socio-environmental conflicts go beyond the demand for access and control over natural resources, challenging the very definition of the elements creating the conflict. That is the case of various indigenous communities across Latin America, whose struggles are not confined to the control of natural resources [53]. Along with this goal, they seek to protect the complex network of relationships between humans and non-humans, the entire web of life in their territories [54], a view that is incomprehensible to the language of property. Hence, socio-environmental movements develop alternative rationalities that differ from the dominant ones. They bring to the fore values and visions that are not market-oriented, appealing for the right to choose, decide, and build new ways of environmental and territorial development [8].

#### 2.4. “Buen Vivir” as an Alternative to Extractivist Development

As stated in the previous section, the struggles undertaken by many socio-environmental movements and grassroots communities are not confined to the demand for access and control of the natural commons. Increasingly, they are devising alternative proposals for socio-ecological transformation that challenge the current development hegemony [55]. These alternative worldviews can be found in different continents and regions. Some examples are the degrowth perspective born in the Global North, the Indian ecological swaraj, and the Latin American approach of “buen vivir” [55].

“Buen vivir”, roughly translated as “living well” or “good living”, is a plural, open, and under-construction category encompassing multiple South American indigenous knowledges and cosmo-visions that share the idea of interdependence and harmonious coexistence between human beings and nature [24,51,55]. “Buen vivir” is part of the philosophy, cosmo-vision, or cosmology of the indigenous peoples of Abya Yala that denotes:

... A system of knowledge and living based on the communion of humans and nature and on the spatial-temporal-harmonious totality of existence. That is, on the necessary interrelation of beings, knowledges, logics, and rationalities of thought, action, existence, and living [56] (p. 18)

“Buen vivir” encompasses a critique of capitalist modernity and a challenge to the rationale of contemporary development [24]. This is done through the rejection of all forms of colonialism and the detachment from the ideas of progress, economic growth, and material consumption. Furthermore, through the principle of interconnection between all living beings, “buen vivir” moves away from the anthropocentric understanding of nature as a resource to be manipulated and appropriated [24,57].

Although the roots of “buen vivir” can certainly be traced back to indigenous peoples, it is also important to recognize the plurality of social actors who are engaging with the notion of living well. Without denying its indigenous roots, the category has been increasingly incorporated by mestizos and local communities who are questioning the conventional idea of development whilst imagining alternative post-capitalist and post-development worlds for their territories [54]. Moreover, “buen vivir” has been included in the debate of decolonial [58] and feminist scholarship [7,59], as it is a perspective that steps away from colonial, racist, and patriarchal constructions of society [57].

In Latin America, “buen vivir” is an ongoing proposal, nourished by different communities, movements, and activists who are devising new ways of living collectively [57]. It is a notion “in permanent construction and reproduction in close relationship with the rest of nature” [55] (p. 367). It is a holistic and plural category, as it encompasses several worldviews that question modernity while opening up other ways of thinking, feeling, and being—other ontologies—rooted in specific histories, territories, cultures, and ecologies [51,55,60]. However, clear convergences can be found within this diversity, such as the delinking from modernity’s belief in progress, acknowledgement of extended communities stemming from relational worldviews, and an ethics that accepts the intrinsic value in non-humans [60].

### 3. Methodology

This study was carried out with a qualitative approach to inquiry to explore the views and practices developed by socio-environmental grassroots activists in their quest for resisting and moving beyond the capitalist and extractivist model of development. For the purpose of this research, a socio-environmental activist is defined as someone who is intensely and actively participating in grassroots organizations involved in local socio-environmental conflicts over a period of time. This methodology was chosen as it focuses on research participants’ perspectives, reveals rich descriptions of their social worlds, and examines this world in practice by looking at the constraints and complexities of everyday lived experiences [61]. Accordingly, socio-environmental struggles were explored from “the inside”, to understand the lived experiences, meanings, and perspectives of the participants as the starting point for this study [62].

As grassroots movements are usually suspicious of the elitist and hierarchical production of knowledge developed in academic settings [63,64], two aspects were pivotal for participants’ recruitment: the lead researcher’s personal networks and trustworthy activists’ gatekeepers. Combined, these strategies enabled us to recruit socio-environmental and local activists living in sacrifice zones. They were chosen because of their affiliation (for at least six months) with socio-environmental movements or local organizations involved in socio-environmental conflicts taking place in the three study areas: Quintero-Puchuncaví Bay, Coronel Bay, and Hualpén-Talcahuano Bay. In addition, they were purposefully selected to ensure gender, organizational, and geographical diversity.

In total, 32 adult activists consented to participate in this study: 8 from Quintero-Puchuncaví Bay (4 males and 4 females, from 3 grassroots organizations), 9 from Coronel Bay (6 males, 3 females, from 6 grassroots organizations), and 15 from Hualpén-Talcahuano Bay (5 males, 10 females, from 5 grassroots organizations). As data saturation was reached [65], no more participants were recruited for the study. Table 1 provides an overview of the activists consenting to participate.

With signed informed consent, up to two personal, semi-structured, audio-taped interviews were conducted with each of the 32 individuals in their native language (Spanish). The semi-structured interview was the chosen data collection method as it allowed us to understand the significance and meanings the participants attach to their lived experiences. Furthermore, it enabled us to recreate both their individual and collective experiences [66] as active members of socio-environmental organizations.

The interviews were conducted by two experienced researchers, who used a semi-structured interview guide with 20 questions. The interviews lasted 60–110 min, and all of them were transcribed verbatim in Spanish. To ensure the validity and reliability of the instrument, a pilot test of the interview protocol [67] was conducted with three research participants at the beginning of the data collection stage. This procedure helped to identify difficult and redundant questions, to record the time taken for the interview process, to assess whether new questions should be added, and to edit and amend the interview guide accordingly [67].

**Table 1.** Characteristics of activist participants.

Organisation	Male	Female	Geographical Area
Coordinadora Chorera	1	6	Hualpén-Talcahuano Bay
Asamblea Ambiental Talcahuano		1	Hualpén-Talcahuano Bay
Asamblea Ambiental Biobío	1		Hualpén-Talcahuano Bay
Coordinadora Territorial Wallpen	2	4	Hualpén-Talcahuano Bay
Campaña Salvemos el Santuario	1		Hualpén-Talcahuano Bay
Coronel Despierta	1	2	Coronel Bay
Salvemos Coronel	1		Coronel Bay
Unión Comunal Coronel	1		Coronel Bay
Junta de Vecinos Estero Manco		1	Coronel Bay
Colectivo Carlos Barrientos	2		Coronel Bay
Trabajadores Unidos contra el Asbesto—TUCA	1		Coronel Bay
Mujeres de Zona de Sacrificio		3	Quintero-Puchuncaví Bay
Quintero-Puchuncaví en Resistencia			Quintero-Puchuncaví Bay
Cabildo Abierto Quintero-Puchuncaví	3	1	Quintero-Puchuncaví Bay
Consejo de Salud Quintero	1		Quintero-Puchuncaví Bay
Total: 14 organizations	14	18	Total: 32 participants

Each interview was divided into three main topics. The first topic explored the personal experiences of socio-environmental activists living in a sacrifice zone. These were some of the questions asked: “What are the main social and environmental issues in your local area?”; “Do you think you live in a ‘sacrifice zone’?”; “What is a sacrifice zone for you?” The second topic focused on the goals, viewpoints, and activities of the interviewee’s organization, including questions such as: “What are the main goals and activities undertaken by your organization?”; “How does your organization get involved in local environmental conflicts?”; “How is your relationship with the government and formal environmental institutions?” Finally, the third topic deepened our inquiry into the alternatives to the existing model of development envisioned and enacted by local organizations. The following are some of the questions asked: “Is the resistance to large-scale projects enough in your struggle?”; “What are the community-based actions that your organization perform?”; “Are there alternatives to the current model of development?”; “Are you creating alternatives at the local level?”; “Does the notion of “buen vivir” resonate within your organization?”

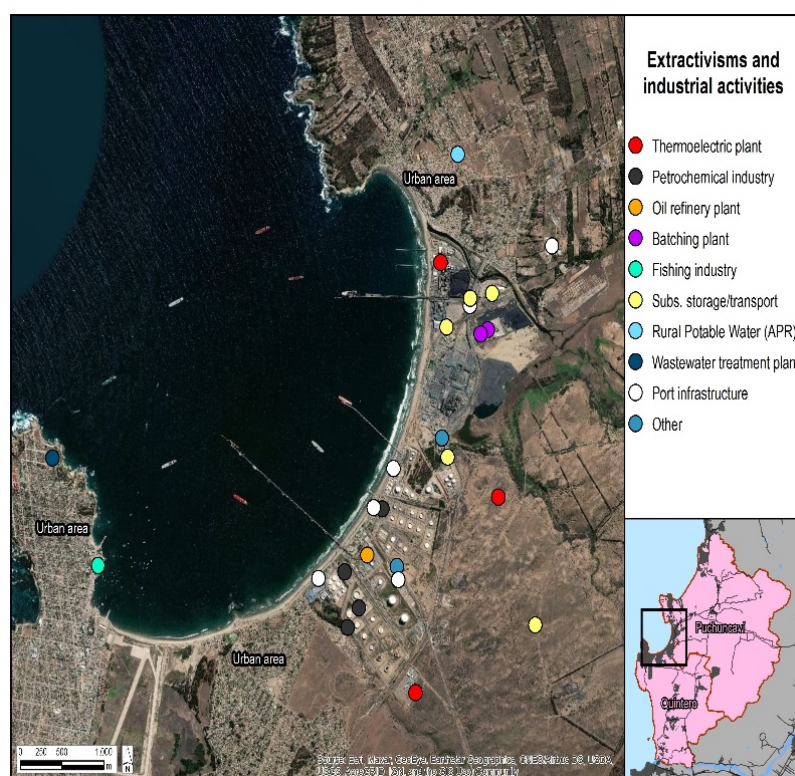
The 32 participants were informed about the voluntary nature of the interview and their right to ask the researcher to stop the recording device if they wanted to say something “off the record”. They were also informed about their right to define whether they wanted to disclose the identity of their organization in the research. They all agreed to make public their group’s identity. Regarding the participants’ names, they were anonymized, and an identifiable code was assigned to each interviewee.

With the goal of “identifying and analyzing patterns (themes) within data” [68], a thematic analysis was carried out. Once the interviews were transcribed, all the raw data was stored in the data analysis software package NVivo 12.0. This software was used to code the research findings and to identify emergent themes for analysis. Firstly, an “initial coding” [69] was conducted. Here, a sample of ten interviews was examined line-by-line and simple codes were developed inductively. Secondly, a “selective coding” [69] was conducted in all the interviews. In this second stage, the most significant and frequent codes from the first stage were compared with the purpose of creating more complex categories. Lastly, the categories generated were subjected to a final “axial coding” [69]. Here, the dimensions and properties of the main categories were specified and the relationship between them and their sub-categories was clarified. Through this process, some of the meta-categories developed were transformed into the main results sections presented in this article.



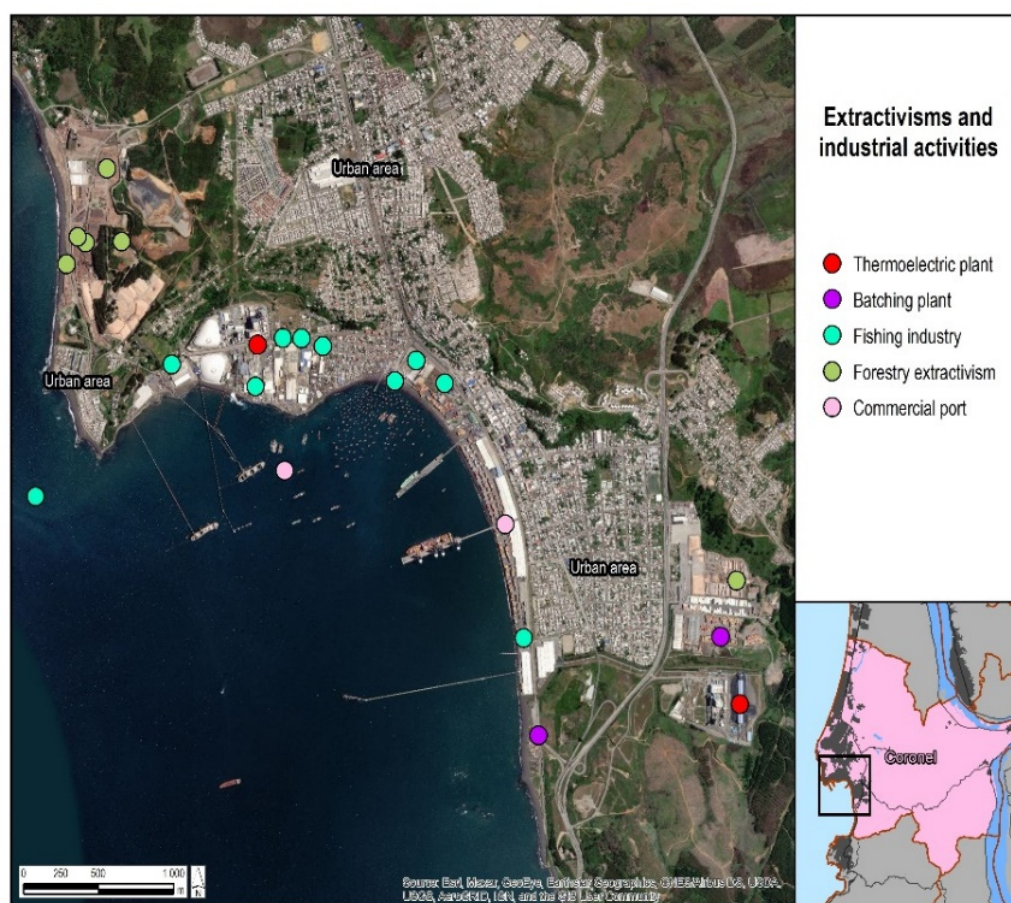
#### 4. Study Areas: An Overview

This study took place in three Chilean coastal areas: Quintero-Puchuncaví Bay in the region of Valparaíso, Coronel Bay, and Hualpén-Talcahuano Bay, located in the Biobío region. Composed of two main municipalities, Quintero-Puchuncaví Bay hosts the “Ventanas Industrial Complex” that houses more than 17 companies, including thermoelectric plants, petrochemical and oil refining industries, chemical processing companies, gas terminals, and a copper processing plant (Figure 2). From the early 1960s, these industries have emitted high amounts of toxic pollutants, such as sulfur dioxide, copper, and other metals, resulting in the poisoning of local residents [46]. In addition, severe erosion processes and the loss of biodiversity and agricultural productivity have occurred [70]. This area is one of the more severe cases of sacrifice zones in Chile. It has been declared as a saturated zone for particulate matter (PM) and sulfur dioxide (SO<sub>2</sub>), a condition that continues in the present [71].



**Figure 2.** Sacrifice zone one: Quintero-Puchuncaví Bay in the Valparaíso region, Chile. Source: Own elaboration based on Chilean Environmental Superintendence (Superintendencia de Medio Ambiente—SMA).

With a historical tradition of coal mining, the city of Coronel, located in the Biobío region, has experienced industrial growth and development projects, including thermoelectric plants, fishing industries, batching (concrete) plants, and a commercial port. All are surrounded by forestry extractivism through monoculture plantations of eucalyptus and pines (Figure 3). Like Quintero-Puchuncaví, Coronel Bay has been declared a saturated zone for particulate matter (PM), surpassing the permitted levels by current Chilean regulation [72,73]. Most of the industrial activity developed in the Biobío region is concentrated in this municipality, causing a disproportionate burden of socio-environmental impacts on its inhabitants [10]. Recently, new studies [74] have confirmed high levels of toxic metals in children living in Coronel. These findings triggered several demonstrations, legal actions, and the emergence of activists’ networks and local organizations demanding the end of pollution and environmental devastation.

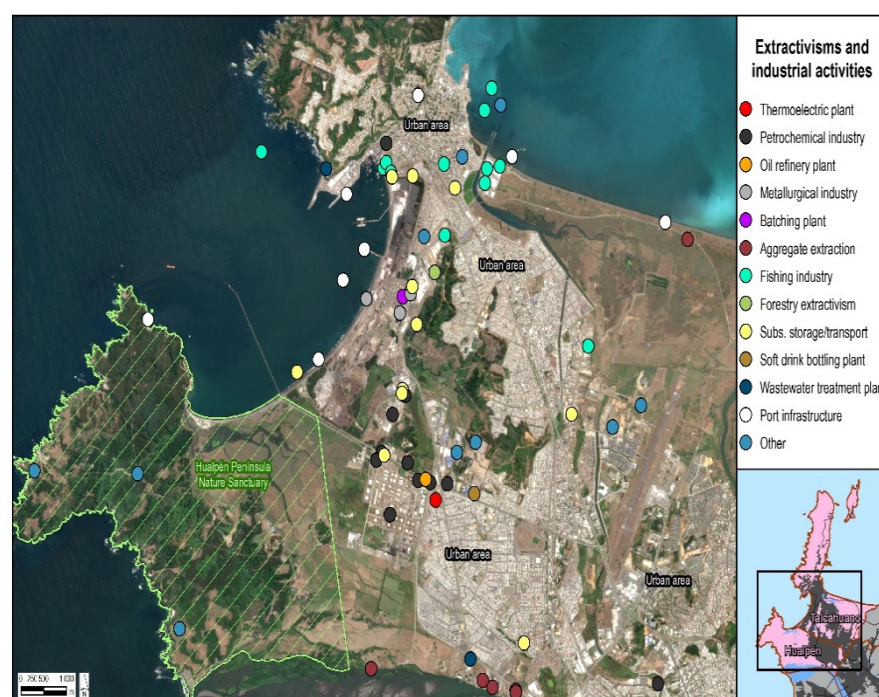


**Figure 3.** Sacrifice zone two: Coronel Bay in the Biobío region, Chile. Source: Own elaboration based on Chilean Environmental Superintendence (Superintendencia de Medio Ambiente—SMA).

Located in the same region (Biobío), Hualpén (Figure 4) is a municipality created in 2003. It houses a wastewater treatment plant and an industrial park composed of an oil refinery plant, petrochemical industries, and a soft-drink bottling plant [75]. Paradoxically, these industrial activities occur near the natural sanctuary “Península de Hualpén”, an area rich in biodiversity that offers hills, lagoons, wetlands, rivers, forests, endemic flora and fauna, and a long coastline. For decades, this natural area has suffered from several contamination episodes, such as oil spill disasters [76] and industrial waste (such as mercury, chlorinated compounds, and other toxic agents), affecting the sanctuary’s wetland [77]. Recently, a new conflict about the sanctuary’s protection has become visible, as projects of real estate development are seeking to urbanize part of this area in order to build upper-class neighborhoods.

Located next to Hualpén is Talcahuano (Figure 4), a port city located at the southern end of Concepción Bay. Talcahuano has a history marked by severe environmental damage, especially during the 1980s and 1990s as a result of the peak of fishery and industrial activities. Presently, it is one of the most industrialized cities in Chile, housing ports, fisheries, metallurgical, petrochemical, and cement manufacturing industries, among others [78]. With Talcahuano’s urban expansion, most of these industries are now very close to residential areas [78]. However, new emerging conflicts have seized public debate in the last years: for example, a failed project for salmon aquaculture and the construction of two maritime refueling terminals in Concepción Bay.





**Figure 4.** Sacrifice zone three: Hualpén-Talcahuano Bay in the Biobío region, Chile. Source: Own elaboration based on Chilean Environmental Superintendence (Superintendencia de Medio Ambiente—SMA).

## 5. Results

To understand the views and practices developed by grassroots movements to tackle the current model of development and the proliferation of sacrifice zones, the empirical findings have been divided into three main sections: (1) sacrifice zones and the critique of extractivist development, (2) collective strategies of resistance, and (3) territorial sovereignty and “buen vivir” as alternatives to extractivist development.

### 5.1. Sacrifice Zones and the Critique of Extractivist Development

#### 5.1.1. Understanding Sacrifice Zones from an Embodied Perspective

The three areas studied in this research share a history of poverty, environmental degradation, and the persistence of extractive-oriented and industrial projects seeking to set up businesses in these municipalities. These features have shaped local residents’ lives and have undoubtedly impacted the life experience and viewpoints of socio-environmental activists. When asked about the meaning of a sacrifice zone and whether they consider their cities as an example of it, all local activists believe that they are living in a sacrifice zone. They define it as an area exposed to high levels of environmental damage, solely for the purpose of companies’ and investors’ financial gain. While the mainstream narrative of industrial and extractive development reproduces the idea of progress, energy, autonomy, and economic growth [6], no significant benefits are seen in local residents living in highly industrialized districts. On the contrary, some of the local economic activities have been severely damaged by large-scale industrial projects, as Noe argues: “... in Quintero and Puchuncaví, people don’t have the right to a decent job and decent wages. The fishermen and artisans are not doing well. Both fishing and tourism have died in our area ...” (Interviewee 1, Quintero-Puchuncaví Bay).

Analysis of the interviews with the environmental defenders revealed the contradictions between the promises made by companies at the beginning of their projects and the real impacts of their activities. According to the activists, no randomness exists in the selection of the cities “to be sacrificed”. The criteria are noticeable: areas with households and communities facing poverty or with a high proportion of social vulnerability. They are

perfect targets for setting up extractive or industrial enterprises. The reason behind this rationale is that people see in large-scale projects an opportunity for solving their immediate needs, downplaying their negative consequences: "... they come to our city because they say they will create jobs, and people are in need for jobs here, so they end up accepting the arrival of these companies ..." (Interviewee 2, Coronel Bay). Furthermore, impoverishment fosters the creation of social relationships based on clientelism, [79], a tool that has been used by governments and private companies to tame dissent and contention [80]. Therefore, a sacrifice zone is not only characterized by environmental degradation but also by the production of multiple social impacts that increase local communities' vulnerability. As an activist from Coronel argues,

We live in a sacrifice zone, which is a territory crowded with unemployment, delinquency, drug addiction and social rights' violations in different ways. The corporations coming here do not tell us that they are coming to contaminate, they say they are coming to help, but they do the opposite  
(Interviewee 3, Coronel Bay)

The sum of socio-environmental negative effects brought about by industrial projects have led activists to think that these companies despise people inhabiting sacrifice zones, belittling them in relation to dwellers living in non-industrial sectors. An activist from Quintero, puts it in these terms: "... for some reason, it has been decided that we, who live in sacrifice zones, are worth less than people who do not live in a sacrifice zone (...) our lives are worth much less..." (Interviewee 4, Quintero-Puchuncaví Bay). This everyday feeling is defined by another local organizer as "living badly": "they are giving us a bad life, every day they are sacrificing us, killing us slowly, with cancer, with illness, and so on ..." (Interviewee 5, Coronel Bay).

### 5.1.2. Naming the Enemy: Capitalist-Extractivist Development

As argued in the previous section, the embodied experience of activists living in a sacrifice zone contradicts the promise of progress and prosperity made by private companies and governments alike. Likewise, it reveals the deep inequalities and devastating effects of this model of development on people's everyday lives. Hence, the arrival of large-scale industrial projects in impoverished territories produces disproportionate environmental burdens while increasing economic and social inequality among the population [81].

Most of the socio-environmental activists who were part of this research understand extractivism or the current model of development [23,25] as intrinsically shaped by the neoliberal phase of capitalism. In their analysis, capitalist accumulation is possible due to increasing extractive-oriented and industrial activities that collide with the reproduction of nature and human and non-human lives. Therefore, the proliferation of sacrifice zones and the worsening of living conditions in these areas is an expected outcome, jeopardizing possible alternatives to the current development paradigm. In the words of Jaime: "when capitalism is able to insert extractivism into our territories, hopelessly there is no way to prevent them to become sacrifice zones (...) because the chance to create alternative life forms is being sacrificed too ..." (Interviewee 6, Hualpén-Talcahuano Bay).

This view refers to a pivotal feature of capitalism: to reconfigure social practices by destroying traditional ones or anything that resists its historical endeavor [82]. In practice, this feature entails devaluating all alternative productive activities and ways of life that are different from those imposed by the dominant economy [40].

Although the research participants acknowledged that the current model of development is deeply rooted in Chilean institutions and legal frameworks [41], they refuse to passively accept this paradigm, as well as the idea of becoming "sacrificed subjects". Conversely, they believe in collective action as a way to move from vulnerability and sacrifice to strength and resistance:

... We no longer wish to call sacrifice zones our hometowns because our cities are not second-rate. For this reason, instead of sacrifice zones we prefer to talk of

territories in resistance ( . . . ) to resist means that we have agency, we have the strength to stop the advance of extractivist capitalism . . .

(Interviewee 7, Quintero-Puchuncaví Bay)

This quote illustrates the powerful ways in which socio-environmental activists have re-signified the experience of living in a sacrifice zone. By acknowledging their agency and exerting their power, they have developed a number of collective strategies for resisting extractivisms and environmental inequalities.

## 5.2. *Collective Strategies of Resistance*

### 5.2.1. The Use of Institutional Tools as a Pragmatic Approach

Several collective strategies have been implemented by socio-environmental movements and local organizations to tackle large-scale industrial and extractive-oriented initiatives. One interesting feature of these collective agents is a distrust in the state and disenchantment with the institutional channels of participation. As a result, they refuse to follow a state-centered approach [83,84], where movements are primarily focused on influencing institutional decisions and fostering change “within the established socio-political and economic order” [85] (p. 474). Alternatively, they develop mixed strategies, combining institutional resources with community-based practices. From a pragmatic perspective, institutional actions are considered as one of the many strategies undertaken by movements and organizations to defend their territories:

We must use all possible channels to defend our territory. As organized communities, we need to know well the tools of the enemy, because, unfortunately, the state is not a mediator but an enemy. The SEIA (Chilean Environmental Assessment Service) does not create a dialogue between companies and communities, it is a weapon of the companies . . .

(Interviewee 6, Hualpén-Talcahuano Bay)

Therefore, socio-environmental movements have used some institutional tools, but with the specific purpose of both delaying new, productive initiatives and overtly condemning the negative impacts of ongoing industrial, infrastructure, real estate development, or extractive-oriented projects. For instance, they take part in legal actions against companies and government offices, become involved in the formal mechanism of participation provided by the Environmental Assessment System, place pressure on local and national political authorities, and attend Chilean parliamentary meetings to make their voices heard. Interestingly, some of these strategies have transcended the national field as organizations from Quintero and Puchuncaví took part in the Universal Periodic Review (UPR), a review of the human rights records of all United Nations member states. In addition, movements from both Quintero-Puchuncaví and Coronel bays attended the Inter-American Court of Human Rights in 2019, denouncing the non-compliance of the Chilean state regarding the protection of human rights for communities living in sacrifice zones. Although most of the research participants acknowledge the limitations of these strategies, they also believe that enacting them might contribute to uncovering persisting power inequalities between communities and the industry [50].

### 5.2.2. Collective Knowledge Production and the Pedagogical Role of Socio-Environmental Organizations

The production of technical and research-based reports is another strategy enacted by socio-environmental movements to support local struggles against existing and new extractive industries. Some organizations, such as Trabajadores Unidos contra el Asbesto - TUCA (Workers United against Asbestos) in Coronel, have developed fundraising activities to finance independent studies. In this way, they can access alternative sources of information to the ones conducted by the government and private companies. In the words of a local activist, “with the money we gathered we were able to fund a soil study ( . . . )



we found 57 heavy metals exceeding the permissible levels, breaching the legal regulation ... ” (Interviewee 8, Coronel Bay).

As a lack of funding is a common trait among grassroots organizations, many of these collective actors rely on strong collaborative networks to produce technical reports. In some cases, organized communities ask for support, gathering a number of qualified volunteers who work together with the goal of analyzing environmental impact assessment reports and finding discrepancies and mistakes in the consultants’ research. Chile’s Environmental Assessment System relies on consulting firms hired and funded by the companies leading the project under assessment. As a consequence, “it is generally believed that hired consultants are usually beholden to their employers and will not generate studies with results and conclusions against their interest” [86].

These technical teams also provide useful information for the drafting of citizens’ observations, a formal procedure of public participation included in Chilean strategic environmental assessment [86]. Along with these activities, the technical teams play an important role in the process of self-education and collective knowledge production. Through teamwork, activists and volunteers share their knowledge with local communities and make technical jargon more understandable for people without an academic background:

Unlike the city council, which has remained silent during the entire environmental assessment of Mirador El Alto [real estate development project], we go to the working-class neighborhoods and talk to people about the project and its impacts. Thanks to our work with the communities, more than 300 citizens’ observations were written against the project. Our technical skills also serve as a powerful learning tool, so we can empower communities and share with them how to use these institutional tools

(Interviewee 9, Hualpén-Talcahuano Bay)

The pedagogical role played by socio-environmental activists is important inasmuch as it democratizes access to information, and it fosters a dialogical relationship with communities. An example of this commitment to collaborative knowledge production is observed in the workshops conducted by local movements with dwellers who are affected by contamination or who will be impacted by new productive projects. Here, the goals are to develop horizontal spaces where everyone can share their views and experiences, and to collectively identify the effects and threats of extractive enterprises. As an activist from Talcahuano explains, “... people will teach us too, they are not only recipients of what we want to tell (... ) we dialogue with existing knowledge coming directly from the people living in our cities ... ” (Interviewee 10, Hualpén-Talcahuano Bay).

The dialogical knowledge produced by socio-environmental movements and communities challenges the valuation languages coming from private companies and the government [22]. Moreover, it promotes an alternative view of nature, local culture, and territory. This last notion has been widely used by Latin American socio-environmental movements, but also by corporations, investors, and government urban planners seeking to impose their views on the material and symbolic production of territory [25]. In this contested field, grassroots organizations understand the importance of creating an alternative narrative about their territories capable of increasing people’s sense of belonging and encouraging them to defend their neighborhoods, local ecosystems, and culture: “... if we want to defend our territory, the only way is to have a strong local identity, people who love the territory where they live ... ” (Interviewee 11, Hualpén-Talcahuano Bay). This goal, shared by most of the movements analyzed in this study, is achieved through multiple community-based activities, such as popular education workshops, local organizations’ networks, community art, outdoor activities, participation in open markets, and dissemination forums, among others. By integrating local communities into these activities, socio-environmental movements seek to re-signify territory as a space of resistance where the community is informed, empowered, and identified with its territory.

### 5.2.3. The Occupation of Public Spaces:

The environmental defenders analyzed in this research also engage in more traditional repertoires of collective action [87,88], such as the occupation of public spaces, demonstrations, and other forms of direct action. A powerful example of these strategies was the occupation of the square in the city of Quintero after a mass poisoning due to high pollution levels produced by the industrial park. A fisherman from Quintero-Puchuncaví Bay describes this experience as follows,

... We heard the news that children who went to school were poisoned and many of them were at the hospital. Many of the parents went to check on their children and confirmed the information, so we went to the main square and occupied it; they were our children! We needed an explanation from the local and national government

(Interviewee 12, Quintero-Puchuncaví Bay)

The occupation of the square in Quintero, the irruption of activists defending Península de Hualpén's natural sanctuary in a national music festival, and mass demonstrations across the study areas are only a few of the examples of the appropriation of public spaces. This strategy enables movements to inform broader audiences about the socio-environmental conflicts taking place in their cities and to invite people from outside activists' milieus to join the struggle. As a local activist asserts,

How do you reach people who are not interested in these topics? If you organize a demonstration, you walk through the main street and there will be hundreds of people who would have never heard of our struggle if we weren't there. We believe in the power of demonstrations because it allows us to express our indignation

(Interviewee 13, Hualpén-Talcahuano Bay)

Overall, this section reveals the diversity of strategies enacted by socio-environmental movements and local organizers for resisting extractivist development. However, are there alternatives to capitalist and extractive development? To what extent do these grassroots movements create their own versions of "buen vivir"?

## 5.3. Territorial Sovereignty and "Buen Vivir" as Alternatives to Extractivist Development

### 5.3.1. Territorial Sovereignty and Reimagining Democracy:

As explained in the previous section, local socio-environmental movements have put into practice multiple resistance strategies against extractivist and industrial projects in their territories. The focus on resistance, however, does not mean that these political agents disregard the importance of reflecting on alternatives to extractivist development and prefiguring them in their own local contexts. Hence, the experience of resisting is intertwined with the challenge of imagining and creating other possibilities for collective life. As Clara points out, "when we delay the projects and inform the communities about the conflict, we are resisting. But in our struggle, resisting and creating are merged. For example, we have developed a management plan for the natural reserve, that plan is pure creation ... " (Interviewee 14, Hualpén-Talcahuano Bay).

These words are useful for understanding the dual character of the socio-environmental struggles analyzed in this research, as both resistance and creation are essential features of their political practice. For many environmental defenders, achieving territorial sovereignty is an example of the creative side of the struggle and a political horizon to pursue. This notion brings to the fore a radical critique of a Chilean representative and highly centralized model of democracy:

Under the current political system, people cannot make their own decisions about the places where they live, the institutions work in a vertical way, all the politicians and government's officials act as if they were kings and our territories their kingdoms. This is why territorial sovereignty is such an important call. The

decisions over our territories should be made by the people who live, work, and has [sic] grown here

(Interviewee 15, Quintero-Puchuncaví Bay)

The call for territorial sovereignty, as stated by Chilean environmental activists, challenges the separation of the community from its common affairs and reclaims the peoples' capacity to build their own processes of self-determination over the territories they inhabit. Unlike state-centered politics, mainly concerned with claiming concessions or demanding recognition from the state [84], the political approach of territorial sovereignty seeks to create new forms of social intervention, production, and organization, anticipating anti-capitalist alternatives [89] and challenging the extractivist model of development.

### 5.3.2. "Buen Vivir": Prefiguring Alternative Paths from Below

Many anti-capitalist alternatives have been identified as practices of "buen vivir" by local activists: "buen vivir" is key for the future we want to build ( . . . ) it is a form of life where we value the community, and we are conscious of the earth and its resources. It's learning from ancient cultures and updating their knowledges to our present times" (Interviewee 16, Hualpén-Talcahuano Bay). Following this quote, "buen vivir" can be understood as an overarching perspective based on a harmonic and reciprocal relationship between humans and nature. Although this paradigm finds its roots in indigenous communities, it strongly resonates with the ideals and practices of urban environmental defenders. Accordingly, "buen vivir" becomes a hybrid that recuperates ancient and indigenous traditions whilst including contemporary approaches from urban activist milieus. Far away from yearning for the past, embracing "buen vivir" entails reimagining and recreating the present by collectively learning from knowledges, experiences, epistemologies, and cosmologies that have been historically marginalized by modern capitalist development in Latin America.

Drawing on the notion of "buen vivir", socio-environmental movements envision territories where small-scale productive initiatives, such as ecotourism, subsistence fishing, local gastronomy, and urban agroecological practices, among others, flourish. Similar to the concept of territorial sovereignty, "buen vivir" is a notion that strongly resonates for activists living in sacrifice zones. For them, "buen vivir" becomes a political horizon that fosters collaborative and more sustainable projects at the local level by encouraging the prefiguration of concrete practices of self-determination in the present. That is the case of the environmental assembly in Talcahuano: " . . . the environmental assembly is working together with a neighborhood association in an allotment garden that will serve as a community space" (Interviewee 17, Hualpén-Talcahuano Bay). The multiplication of community gardens across metropolitan areas is an important example of the creative ways in which socio-environmental movements promote food sovereignty and engage in practices of "buen vivir". Furthermore, the local campaign "*Salvemos el Santuario*" is working on the project of a nursery garden inside Hualpén's natural sanctuary. By focusing on community environmental education, this initiative seeks to promote practices of ecological restoration and Do-It-Yourself (DIY) workshops on community gardens and greenhouse projects.

Altogether, the aforementioned socio-ecological practices are a few examples of the enactment of "buen vivir" in the study areas of this research. These experiences reveal existing possibilities for restoring local ecosystems and creating sustainable socio-economic activities, opening up alternatives to extractivist development.

## 6. Conclusions

This research provides an account of local environmental activism taking place in three Chilean coastal areas. Drawing on the viewpoints and experiences of environmental activists and local organizers from Quintero-Puchuncaví Bay, Coronel Bay, and Hualpén-Talcahuano Bay, this study sheds light on the situated analysis developed by socio-environmental movements about capitalist-extractivist development and how this

framework has contributed to the proliferation of sacrifice zones throughout the country. For the research participants, a sacrifice zone is not only affected by environmental degradation but also by several social burdens that increase the vulnerability of local communities. When the extractivist development enters a territory with its large-scale projects, the promises of progress and economic wealth are unfulfilled and, conversely, an apparent deepening of poverty and socio-spatial inequalities is observed. As a consequence, the destructive nature of capital over territories and life becomes unbearable for communities, triggering a number of socio-environmental conflicts and collective responses to the current model of development and its local implications.

The collective strategies resisting extractive and industrial projects are usually developed by socio-environmental movements and local organizations. These collective agents undertake heterogeneous practices of resistance, ranging from more institutional ones (legal actions, formal participation in environmental assessment processes) to more radical ones (occupation of public spaces, protests, and other forms of direct action). Another feature found in these movements is the pedagogical turn of their practices, enabling a dialogic relationship with local communities and the democratization of knowledge production through collaborative and inclusive methodologies. These results are in agreement with those obtained by other Latin American scholars [1,7–9], who have documented a wide array of activities undertaken by socio-environmental movements in the defense of their territories.

This study has shown that most of the environmental defenders are disenchanted with the state and its institutional channels of participation. The perceived inter-connectedness between the state and the corporate sector is one of the reasons behind this process. Likewise, the hierarchical and highly centralized model of democracy existing in Chile is identified as another cause for this collective frustration. Interestingly, this positioning does not prevent them from using all mechanisms at hand to delay extractive projects and uncover environmental injustices. Compared to the present study, previous research on Chilean socio-environmental struggles [9,10,43] has not further explored the paradox of strongly distrusting the state while using its institutional tools in a pragmatic way. This study contributed to filling this gap by providing a new understanding of the complex relationship between grassroots socio-environmental organizations and the Chilean state.

The political performance of the socio-environmental movements analyzed in this research is twofold: on the one hand, they enact multiple resistance strategies against extractivist development. On the other hand, they embark on the task of prefiguring alternative paths for collective life in the present. By embracing the ideas of territorial sovereignty and “buen vivir”, they move beyond resistance and engage in creative projects of self-determination at the micro level, such as community gardens, ecotourism, and initiatives for ecological restoration, among others. These practices need to be taken into account in current debates about alternatives to development in Chile and elsewhere [51,90]. This paper is a contribution to this debate, although further research is required to enhance our understanding of the creative side of socio-environmental movements. Looking deeper into these practices is important because they represent a vivid example of new collective arrangements, created from below for the defense of life, Mother Earth, and “buen vivir” in urban areas.

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## References

1. Navarro, M. *Luchas por lo común. Antagonismo Social Contra el Despojo Capitalista de los Bienes Naturales en México*; Editorial ICSyH BUAP: Puebla, México, 2015.
2. Scott, D.; Smith, A. Sacrifice zones in the green energy economy: The new climate refugees. *TLCP* **2017**, *26*, 371–382.
3. Nel, A. The choreography of sacrifice: Market environmentalism, biopolitics and environmental damage. *Geoforum* **2015**, *65*, 246–254. [\[CrossRef\]](#)
4. Lerner, S. *Sacrifice Zones: The Front Lines of Toxic Chemical Exposure in the United States*; MIT Press: Cambridge, MA, USA, 2010.
5. Taylor, D. Politics of Abandonment: The Biopolitics of National Sacrifice Zones. Master's Thesis, The University of Sydney, Camperdown, Australia, 2018.
6. Reinert, H. Notes from a Projected Sacrifice Zone. *ACME* **2018**, *17*, 597–617.
7. Ulloa, A. Feminismos territoriales en América Latina: Defensas de la vida frente a los extractivismos. *Rev. Nómadas* **2016**, *45*, 123–139. [\[CrossRef\]](#)
8. Navarro, M.; Pineda, C. Luchas socioambientales en América Latina y México. Nuevas subjetividades y radicalidades en movimiento. *Bajo Volcán* **2009**, *8*, 81–104.
9. Bolados, P. Conflictos socio-ambientales/territoriales y el surgimiento de identidades post neoliberales (Valparaíso-Chile). *Izquierdas* **2016**, *31*, 102–129. [\[CrossRef\]](#)
10. Castán, B.; Sanzana, C. Sacrifice zones and the construction of urban energy landscapes in Concepción, Chile. *JPE* **2020**, *27*, 279–299. [\[CrossRef\]](#)
11. Cáceres, D. Accumulation by Dispossession and Socio-Environmental Conflicts Caused by the Expansion of Agribusiness in Argentina. *J. Agrar. Chang.* **2014**, *15*, 116–147. [\[CrossRef\]](#)
12. Sussman, D. Reemphasizing rational choice in community mobilization: Comparing case studies of mining in Southern Perú. *Soc. Mov. Stud.* **2020**, 1–18. [\[CrossRef\]](#)
13. Velásquez, M. Movimientos Ambientales. Recursos y oportunidades políticas en México y Argentina. *Soc. Rural. Prod. Medio Ambiente* **2003**, *4*, 19–34.
14. Velásquez, R.; Somuano, M.; Ortega, R. David contra Goliath: ¿cómo los movimientos ambientalistas se enfrentan a las grandes corporaciones? *América Lat. Hoy* **2018**, *79*, 41–58.
15. McCarthy, J.D.; Zald, M.N. Resource mobilization and social movements: A partial theory. *Am. J. Sociol.* **1977**, *82*, 1212–1241. [\[CrossRef\]](#)
16. McAdam, D. The political process model. In *Social Movements: Perspectives and Issues*; Buecher, S., Cylke, K., Eds.; Mayfield Publishing: Mountain View, CA, USA, 1997; pp. 172–192.
17. Delgado, L.E.; Marin, V. (Eds.) *A New Environmental Governance. In Social-Ecological Systems of Latin America: Complexities and Challenges*; Springer: Cham, Switzerland, 2019; pp. 117–135.
18. Merino, R. The politics of extractive governance: Indigenous peoples and socio-environmental conflicts. *Extr. Ind. Soc.* **2015**, *2*, 85–92.
19. Damonte, G.; Glave, M. Rent distribution and extractive industry conflict: The Latin American approach. In *ELLA: Economic Development, Extractive Industries and Conflict Management*; Policy Brief; University of Sussex: Sussex, UK, 2012; pp. 1–7.
20. Zartman, I. Conflict and resolution: Contest, cost, and change. *Ann. Am. Acad. Political Soc. Sci.* **1991**, *518*, 11–22. [\[CrossRef\]](#)
21. Robbins, P. *Political Ecology: A Critical Introduction to Geography*; Wiley-Blackwell: Hoboken, NJ, USA, 2012.
22. Martínez Alier, J. *El Ecologismo de los Pobres. Conflictos Ambientales y Lenguajes de Valoración*; Editorial Quimantú: Santiago, Chile, 2014.
23. Gudynas, E. La ecología política de la crisis global y los límites del capitalismo benévolo. *Iconos* **2010**, *36*, 53–67. [\[CrossRef\]](#)
24. Gudynas, E. Más allá del nuevo extractivismo: Transiciones sostenibles y alternativas al desarrollo. In *El desarrollo en Cuestión. Reflexiones Desde América Latina*; Wanderley, F., Ed.; Oxfam and CIDES UMSA: La Paz, Bolivia, 2011; pp. 379–410.



25. Svampa, M. Commodities Consensus: Neoextractivism and Enclosure of the Commons in Latin America. *South Atl. Rev.* **2015**, *114*, 65–82. [CrossRef]
26. Machado, H. Ecología política de los regímenes extractivistas. De reconfiguraciones imperiales y re-existencias decoloniales en nuestra América. *Bajo Volcán* **2015**, *15*, 11–51.
27. Harvey, D. *The New Imperialism*; Oxford University Press: New York, NY, USA, 2003.
28. Federici, S. *La Revolución Feminista Inacabada. Mujeres, Reproducción Social y Lucha por lo Común*; Escuela Calpulli: Oaxaca, México, 2013.
29. De Angelis, M. Marx's Theory of Primitive Accumulation: A Suggested Reinterpretation. Manuscript, University of East London. 1999. Available online: <http://homepages.uel.ac.uk/M.DeAngelis/PRIMMACCA.htm> (accessed on 20 March 2021).
30. Holloway, M. *Agrietar el Capitalismo: El Hacer Contra el Trabajo*; ICSYH-BUAP—Bajo Tierra: Ciudad de México, México, 2011.
31. Perreault, T. Dispossession by Accumulation? Mining, Water and the Nature of Enclosure on the Bolivian Altiplano. *Antipode* **2012**, *45*, 1050–1069. [CrossRef]
32. Marx, K. *Capital. Volume 1*; Penguin Books: New York, NY, USA, 1990; p. 82.
33. Seoane, J. Neoliberalismo y ofensiva extractivista. Actualidad de la acumulación por despojo, desafíos de Nuestra América. *Theoria* **2012**, *26*. Available online: <https://www.redalyc.org/articulo.oa?id=12426097006> (accessed on 20 March 2021).
34. Alimonda, H. La colonialidad de la naturaleza. Una aproximación a la Ecología Política Latinoamericana. In *La naturaleza Colonizada. Ecología Política y Minería en América Latina*; Alimonda, H., Ed.; CLACSO: Buenos Aires, Argentina, 2011; pp. 21–50.
35. Acosta, A. Extractivism and Neoextractivism: Two sides of the same curse. In *Beyond Development: Alternative Visions from Latin America*; Lang, M., Mokrani, M., Eds.; Rosa Luxemburg Foundation and Amsterdam Transnational Institute: Quito, Ecuador, 2013; Volume I, pp. 61–86.
36. Hidalgo, R.; Camus, P.; Paulsen, A.; JOlea, J.; Alvarado, V. Extractivismo inmobiliario, expropiación de los bienes comunes y esquilma del medio natural. El borde costero en la macrozona central de Chile en las postrimerías del neoliberalismo. *Innsbr. Geogr. Stud.* **2016**, *40*, 251–270.
37. Pintos, P. Extractivismo inmobiliario y vulneración de bienes comunes en la cuenca baja del río Luján. In *Extractivismo Urbano: Debates para una Construcción Colectiva de las Ciudades*; Vásquez, A., Ed.; Rosa Luxemburg Foundation: Buenos Aires, Argentina, 2017; pp. 23–39.
38. Gudynas, E. Extractivismos y corrupción en América del Sur: Estructuras, dinámicas y tendencias en una íntima relación. *RevIISE* **2017**, *10*, 73–87.
39. Lander, E. (Neo) Extractivismo y el Futuro de la Democracia en América Latina: Diagnóstico y Retos. In Proceedings of the Conferencia Internacional, Fundación Heinrich Böll, Berlín, Germany, 13–14 May 2014; pp. 1–13.
40. Svampa, M.; Viale, E. *Maldesarrollo: La Argentina del Extractivismo y el Despojo*; Katz Editores: Buenos Aires, Argentina, 2014.
41. Tecklin, D.; Bauer, C.; Prieto, M. Making environmental law for the market: The emergence, carácter, and implications of Chile's environmental regime. *Env. Polit.* **2011**, *20*, 879–898. [CrossRef]
42. Carruthers, D. Environmental politics in Chile: Legacies of dictatorship and democracy. *Third World Q.* **2001**, *22*, 343–358. [CrossRef]
43. Delamaza, G.; Maillet, A.; Martínez, C. Socio-Territorial Conflicts in Chile: Configuration and Politicization (2005–2014). *Eur. Rev. Latin Am. Caribb. Stud.* **2017**, *104*, 23–46. [CrossRef]
44. Torres, R.; Azócar, G.; Carrasco, N.; Zambrano, M.; Costa, T.; Bolin, B. Forestry development, water scarcity, and the Mapuche protest for environmental justice in Chile. *Ambiente Soc.* **2016**, *19*, 121–144. [CrossRef]
45. Jeréz, B. La expansión minera e hidroeléctrica a costa de la desposesión agropecuaria y turística: Conflictos ecoterritoriales extractivistas en las cuencas transfronterizas de la Patagonia argentino-chilena. *RIVAR* **2017**, *4*, 25–44.
46. Bolados, P.; Sánchez, A. Una ecología política feminista en construcción: El caso de las “Mujeres de zonas de sacrificio en resistencia”, Región de Valparaíso, Chile. *Psicoperspectivas* **2017**, *16*, 33–42. [CrossRef]
47. Palacio, G. Breve guía de introducción a la Ecología Política (Ecopol): Orígenes, inspiradores, aportes y temas de actualidad. *Gestión Ambiente* **2006**, *9*, 7–20.
48. Scheidel, A.; Temper, L.; Demaria, F.; Martínez Alier, J. Ecological distribution conflicts as forces for sustainability: An overview and conceptual framework. *Sustain. Sci.* **2018**, *13*, 586–598.
49. García, E.; Ayala-Orozco, B.; Oliva, M.; Smith, R. Different Approaches towards the Understanding of Socio-Environmental Conflicts in Protected Areas. *Sustainability* **2018**, *10*, 2240. [CrossRef]
50. Martínez Alier, J. Conflictos ecológicos distributivos en América Latina. *An. Educ. Común* **2007**, *3*, 52–58.
51. Escobar, A. *Otro Posible es Posible: Caminando Hacia las Transiciones Desde Abya Yala/Afro/Latino América*; Ediciones Desde Abajo: Bogotá, Colombia, 2018.
52. Gudynas, E. Conflictos y extractivismos: Conceptos, contenidos y dinámicas. *Decursos* **2013**, *15*, 79–116.
53. Blaser, M. Notes towards a political ontology of “environmental” conflicts. In *Contested Ecologies Dialogues in the South on Nature and Knowledge*; Green, L., Ed.; HSRC Press: Cape Town, South Africa, 2013.
54. Ulloa, A. Environment and Development: Reflections from Latin America. In *The Routledge Handbook of Political Ecology*; Perreault, T., Bridge, G., McCarthy, J., Eds.; Routledge: New York, NY, USA, 2015; pp. 320–331.
55. Kothari, A.; Demaria, F.; Acosta, A. Buen Vivir, Degrowth and Ecological Swaraj: Alternatives to sustainable development and the Green Economy. *Development* **2014**, *57*, 362–375. [CrossRef]

56. Walsh, C. Development as Buen Vivir: Institutional arrangements and (de)colonial entanglements. *Development* **2010**, *53*, 15–21. [CrossRef]
57. Acosta Martínez, A. Buen Vivir: An alternative perspective from the peoples of the Global South to the crisis of capitalist modernity. In *The climate Crisis. Southafrican and Global Democratic Eco-Socialist Alternatives*; Satgar, V., Ed.; Wits University Press: Johannesburg, South Africa, 2018; pp. 131–147.
58. Marañón, B. *Buen Vivir y Decolonialidad: Crítica al Desarrollo y la Racionalidad Instrumentales*; UNAM: Mexico City, México, 2014.
59. Zaragocín, S. Feminismo decolonial y buen vivir. In *Feminismo y Buen Vivir: Utopías decoloniales*; Varea, S., Zaragocin, S., Eds.; PYDLOS Universidad de Cuenca: Cuenca, Ecuador, 2017; pp. 17–25.
60. Chuji, M.; Rengifo, G.; Gudynas, E. Buen Vivir. In *Pluriverse: A post-Development Dictionary*; Kothari, A., Salleh, A., Escobar, A., Demaria, F., Acosta, A., Eds.; Tulika Books: New Delhi, India, 2019; pp. 111–114.
61. Denzin, N.; Lincoln, Y. Introduction: The discipline and practice of qualitative research. In *The SAGE Handbook of Qualitative Research*; Denzin, N., Lincoln, Y., Eds.; Sage: Thousand Oaks, CA, USA, 2011; pp. 1–20.
62. Ormston, R.; Spencer, L.; Barnard, M.; Snape, D. The foundations of qualitative research. In *Qualitative Research Practice. Guide for Social Science Students and Researchers*; Ritchie, J., Lewis, J., Nicholls, M., Ormston, R., Eds.; SAGE: London, UK, 2014; pp. 1–26.
63. Russell, B. Beyond activism/academia: Militant research and the radical climate and climate justice movement (s). *Area* **2014**, *47*, 222–229. [CrossRef]
64. Martínez, M.A.; Lorenzi, E. Autonomous Activist Research: The case of the squatters' movement in Madrid. *Rev. Int. Sociol.* **2012**, *70*, 165–184. [CrossRef]
65. Guest, G.; Namey, E.; Chen, M. A simple method to assess and report thematic saturation in qualitative research. *PLoS ONE* **2020**, *15*, e0232076. [CrossRef] [PubMed]
66. Alonso, L. Sujeto y discurso. El lugar de la entrevista abierta en las prácticas de la sociología cualitativa. In *Métodos y Técnicas Cualitativas de Investigación en Ciencias Sociales*; Delgado, J., Gutiérrez, J., Eds.; Editorial Síntesis: Madrid, Spain, 1999; pp. 225–240.
67. Dikko, M. Establishing Construct Validity and Reliability: Pilot Testing of a Qualitative Interview for Research in Takaful (Islamic Insurance). *Qual. Rep.* **2016**, *21*, 521–528.
68. Castleberry, A.; Nolen, A. Thematic analysis of qualitative research data: Is it as easy as it sound? *CPTL* **2018**, *10*, 807–815.
69. Charmaz, K. *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*; SAGE: London, UK, 2006.
70. González, L.; Neaman, A.; Rubio, P.; Cortés, A. Spatial distribution of copper and pH in soils affected by intensive industrial activities in Puchuncaví and Quintero, central Chile. *J. Soil. Sci. Plant. Nutr.* **2014**, *14*, 943–953. [CrossRef]
71. Ertör, I. *Small-Scale Fisher People Against Contaminating Industries in Valparaíso, Chile*; Environmental Justice Atlas; Universitat Autònoma de Barcelona: Barcelona, Spain, 2019.
72. Biblioteca del Congreso Nacional de Chile. Decreto 15 del 11 de marzo de 2015, Declara Zona Saturada por Material Particulado Fino Respirable Mp 2.5 Como Concentración Diaria, a las Comunas de Lota, Coronel, San Pedro de la Paz, Hualqui, Chiguayante, Concepción, Penco, Tomé, Hualpén y Talcahuano. Available online: <https://www.leychile.cl/Navegar?idNorma=1079432&idParte=0> (accessed on 10 January 2021).
73. MODATIMA. El Día de la Salud en Coronel: Cuando la Cuarentena Es Un Sacrificio. MODATIMA. Available online: <http://modatima.cl/2020/04/22/el-dia-de-la-salud-en-coronel-cuando-la-cuarentena-es-un-sacrificio/> (accessed on 20 December 2020).
74. Ministerio de Salud. Situación Epidemiológica y Medioambiental en Coronel. Departamento Epidemiología MINSAL. Available online: <https://www.camara.cl/verDoc.aspx?prmID=185757&prmTIPO=DOCUMENTOCOMISION> (accessed on 10 January 2021).
75. Tume, P.; González, E.; Reyes, F.; Fuentes, J.; Roca, N.; Bech, J.; Medina, G. Sources análisis and health risk assessment of trace elements in urban soils of Hualpen, Chile. *Catena* **2019**, *175*, 304–316. [CrossRef]
76. EULA-Chile. *Evaluación Del Daño Ambiental Y Económico Generado por el Derrame de Petróleo Proveniente del Terminal B de ENAP en la Bahía de San Vicente*; Segundo Informe de Avance: Talcahuano, Chile, 2008.
77. Torres, C. Elementos Para el Diseño de Un Plan de Gestión Ambiental en el Santuario de la Naturaleza Península de Hualpén. Bachelor's Thesis, Universidad de Concepción, Concepción, Chile, 2018.
78. Tume, P.; Bech, J.; Sepulveda, B.; Tume, L.; Bech, J. Concentrations of heavy metals in urban soils of Talcahuano (Chile): A preliminary study. *Environ. Monit. Assess.* **2008**, *140*, 91–98. [CrossRef]
79. Legaspy, E. Etnografías y tecnocracia en Zona de Sacrificio. *Cuad. Méd. Soc.* **2019**, *59*, 41–59.
80. Schilling-Vacaflor, A. 'If the company belongs to you, how can you be against it?' Limiting participation and taming dissent in neo-extractivist Bolivia. *J. Peasant Stud.* **2016**, *38*, 1058–1074. [CrossRef]
81. Willow, A. Indigenous ExtrACTIVISM in Boreal Canada: Colonial Legacies, Contemporary Struggles and Sovereign Futures. *Humanities* **2016**, *5*, 55. [CrossRef]
82. Echeverría, B. *Valor de Uso y Utopía*; Siglo XXI: Ciudad de México, México, 1998.
83. Holloway, J. *Change the World Without Taking Power*; Pluto Press: London, UK, 2010.
84. Gutiérrez, R. Pistas reflexivas para orientarnos en una turbulenta época de peligro. In *Palabras para Tejernos, Resistir y Transformar en la Época Que Estamos Viviendo*; Gutiérrez, R., Ed.; Pez en el Árbol Editorial: Oaxaca/Puebla, México, 2011; pp. 9–34.
85. Haiven, M.; Khasnabish, A. Between success and failure: Dwelling with social movements in the hiatus. *Interface J. Soc. Mov.* **2013**, *5*, 472–498.
86. Agostini, C.; Silva, C.; Nasirov, S. Failure of Energy mega-Projects in Chile: A Critical Review from Sustainability Perspectives. *Sustainability* **2017**, *9*, 1073. [CrossRef]

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87. Tarrow, S. Cycles of Collective Action: Between Moments of Madness and the Repertoire of Contention. *Soc. Sci. Hist.* **1993**, *17*, 281–307. [[CrossRef](#)]
  88. Dhaliwal, P. Public squares and resistance: The politics of space in the Indignados movement. *Interface J. Soc. Mov.* **2012**, *4*, 251–273.
  89. Dinerstein, A.C. La autonomía y sus imaginarios prácticos en permanente construcción. In *Movimientos Sociales y Autonomía Colectiva. La Política de la Esperanza en América Latina*; Dinerstein, A.C., Ed.; Capital Intelectual: Buenos Aires, Argentina, 2013; pp. 21–37.
  90. Acosta, A. Postextractivismo: Del discurso a la práctica—Reflexiones para la acción. *Rev. Int. Polit. Dev.* **2017**, *9*. [[CrossRef](#)]