Neoliberalism, Protest, and Environmentalism in Chile: The Role of Environmental Concerns in the 2019 *estallido social*

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ABSTRACT

Chile's neoliberal economic model, instituted under the Pinochet dictatorship, has caused significant environmental harm. Legacies of the dictatorship were also a causal factor in the *estallido social*, a massive social movement that began in October 2019 and highlighted a breadth of social demands, including improved healthcare, education, and pension systems. Protesters successfully fought for a process to write a new constitution, which will replace the dictatorship-era one. The new constitution is a major opportunity to improve environmental governance in Chile, in addition to addressing social demands. Therefore, understanding how environmental concerns played a role in the *estallido* is key to assessing the likelihood that they will be incorporated in the new constitution. I surveyed student protest participants to understand their level of environmental concern and interviewed representatives of Chilean environmental organizations to determine how they participated in the *estallido*. I found that university students ranked environmental demands, such as "right to water" and "protection of the environment," highly compared to social demands prominent in the *estallido*, but did not identify environmental demands as their primary motivation to protest. Environmental organizations worked to introduce environmental themes in community meetings and on social media during the *estallido*. Organizations also collaborated with other groups to develop environmental proposals for the new constitution and are actively advocating for these proposals to be included. These findings reflect positively on the possibility of improving environmental governance in Chile, but many challenges remain.

KEYWORDS

social movements, environmental activism, New Ecological Paradigm Scale, constitutional rewrite, social outburst

INTRODUCTION

Chile, a narrow Andean country, is home to unique endemic species and stunning natural landscapes. However, its natural and human populations face environmental challenges such as air pollution (Schueftan et al. 2016, Molina et al. 2017), water scarcity (Aitken et al. 2016, Garreaud et al. 2017), biodiversity loss and deforestation (Miranda et al. 2017, Rodríguez-Echeverry et al. 2018). Many of these issues can be traced back to the military dictatorship of 1973 to 1990, during which the government implemented neoliberal policy reforms that emphasized privatization and deregulation and encouraged the export of natural resources (Carruthers 2001, Silva 2018). Environmental legislation passed since the country's return to democracy has largely demonstrated a continued commitment to the free-market model of the dictatorship rather than a real attempt to regulate the impact of extractive economic practices on the environment (Carruthers 2001, Tecklin et al. 2011, Silva 2018).

In response to the lack of environmental protection by the Chilean government, environmental activism in the country has grown. Conflicts over large, environmentally harmful projects such as hydroelectric dams and gold mines have drawn some of the largest protests seen since the end of the dictatorship and raised public awareness of environmental issues (Urkidi 2010, Sepúlveda and Villarroel 2012, Haslam 2018, Silva 2018). In recent years, activists have successfully stopped a few of these "megaprojects," most notably the HidroAysén dams in northern Patagonia (Barandiarán 2018). Environmental activism has also played an important role in advancing environmental policy in Chile, although reforms are often watered down by powerful business elites, allowing for continued environmental harm (Silva 2018, Madariaga 2019).

In October 2019, Chile was rocked by a broad social movement that initially seemed quite disconnected from environmental goals. The *estallido social*, or "social outburst" brought thousands of Chileans into the streets for months, calling for an end to inequities in healthcare, education, and the pension system, among other social issues (Somma et al. 2020). Despite the absence of widespread environmental concerns in the protests, environmental problems are inextricably linked to the protesters' demands, as the neoliberal policies of the dictatorship have created both social and environmental harm (Carruthers 2001, Calderón 2020, Somma et al. 2020). Protesters, well aware of the root of these issues in the dictatorship, made repealing and rewriting the 1980 Constitution a central demand (Ansaldi and Pardo-Vergara 2020, Badilla Rajevic 2020,

Somma et al. 2020). On November 15, 2019, major political parties agreed to a constitutional referendum and on October 25, 2020 Chileans overwhelming voted to write a new constitution (Bonnefoy 2020, Mayol 2020). The constitutional rewrite process is a major opportunity to improve environmental governance in Chile – yet if activists do not push for more and better protections, this opportunity could be lost. Given the urgency of environmental challenges facing Chile, understanding the role of environmental issues in this broad social movement is critical to advancing improvements in environmental governance during the constitutional rewrite.

How did environmental concerns play a part in the *estallido social*? I explore this question from two perspectives: student protest participants and environmental organizations. For the first group, I asked: Were protest participants concerned about the environment? Did environmental concern contribute to their motivation to protest? I answered these questions by collecting data on students' protest participation and environmental concern, measured by the New Ecological Paradigm Scale. To understand the role of environmental organizations, I asked: How did Chilean environmental organizations participate in or interact with the *estallido*? I gathered information on how organizations participated, how they interacted with other groups during the movement, and how they are promoting environmental goals in the new constitution. Finally, I combine these two perspectives to detail the role of environmental concerns in the *estallido social* and evaluate the prospects for improving environmental governance in Chile in the new constitution and beyond.

BACKGROUND AND SOCIAL MOVEMENT THEORY

Environmental legislation and conflict in Chile

The Pinochet dictatorship and its implications for the environment

In 1973, a military coup overthrew the democratically elected government of Salvador Allende and set Chile on a path towards environmental conflict. The Allende government was radically socialist, implementing redistributive reforms and empowering labor unions and community organizations (Roberts 2016). In response, the new military government led by General Augusto Pinochet acted immediately to undo these reforms and violently to suppress citizen groups who had supported them. Their actions amounted to a forceful depoliticization of

societal issues, removing them from the public sphere to the private sphere, where they could no longer be acted upon by state (Barandiarán 2016, Roberts 2016). Instead, issues such as health care, education, pensions, and environmental protection would be determined by market forces.

The so-called "Chicago Boys," Chileans trained in Milton Friedman-style free market economics at the University of Chicago, brought neoliberalism to Chile (Carruthers 2001, Roberts 2016). Neoliberalism is a broadly used term, but it is here defined as "a politically guided intensification of market rule and commodification" (Brenner et al. 2010). Neoliberal reforms privatizing economic activities, strengthening private property rights, and strictly limiting government regulation were enshrined in 1980 Constitution (Tecklin et al. 2011). These policies encouraged environmental exploitation, leading to significant harm: "by the early 1990s…each of the country's major natural resource sectors had environmental problems and was entangled in conflicts" (Tecklin et al. 2011: 884). These problems included depletion of fisheries, deforestation, air and water pollution due to copper mining, and desertification and erosion caused by the agricultural sector (Silva 1996). Summarizing the impact of Chile's export economy on the environment, Carruthers (2001) writes:

> Chile's fiercely unregulated economy provides ample reward for producers who push negative social and environmental costs onto future generations, vulnerable ecological systems or the poorest and most marginalised populations. From the strip mines of the arid north to the scarred forests of Patagonia, the export boom has put the hard squeeze on nature (347).

As Carruthers highlights, the neoliberal policies implemented by the military government had a drastic impact on the environment – and they would continue to do so for some time.

Although Chile returned to democracy in 1990, much of the economic, social, and political structure created during the dictatorship remained in place, leading to continued environmental (and social) harm. The dictatorship ended peacefully when a majority of Chileans voted against Pinochet in the 1988 plebiscite. But this "democratic" transition came with a price, namely, a commitment to maintain the neoliberal economic model established by the military government (Silva 2018). Additionally, the military government's control over the transition process allowed supporters of the dictatorship to establish a conservative majority in the legislature, further limiting possibilities for reform (Roberts 2016, Silva 2018). Thus, while the return to democracy opened the "policy window" for many issues ignored under the dictatorship, any changes would be slow and incremental.

The National Environmental Framework Law (NEFL)

Chile's principal piece of environmental legislation was adopted in 1994 due to economic reasons, not environmental ones. At this time, Chile was being considered as a potential signatory to the North American Free Trade Agreement (NAFTA). However, the U.S. Congress required some form of minimum environmental legislation as a condition of inclusion (Tecklin et al. 2011). Chile's business sector, highly invested in increasing trade, at the same time resisted the idea of a reform that would create a strong regulatory system through a ministry of the environment (Tecklin et al. 2011, Silva 2018). The newly elected Aylwin administration did not want to risk conflict with business elites that might endanger the transition to democracy, and therefore opted for a weaker system (Barandiarán 2016, Silva 2018). The government was also influenced by the World Bank, which offered a US $17 million loan to support the decentralized approach (Tecklin et al. 2011). Due to these influences and others, the National Environmental Framework Law (NEFL) created a weak system of environmental regulation that did little to restrict harmful business practices.

Instead of the strong environment ministry favored by Chilean environmental organizations, under NEFL the National Commission for the Environment (CONAMA), a coordinating agency with weak regulatory capacity, became the primary environmental governance institution (Silva 2018). Although CONAMA was given the authority to issue new environmental quality and emissions rules, an extensive rule review process meant that in practice, it enacted only a few, uncontroversial regulations (Tecklin et al. 2011, Barandiarán 2016). The agency spent most of its time managing environmental impact assessments (EIAs), the main regulatory instrument created by NEFL (Silva 1996, Barandiarán 2016). EIAs are required for every new investment project and are evaluated by Regional Environmental Commissions (COREMAs). Unlike in the United States, where project proponents are required to discuss alternatives in their EIA, under NEFL only one project proposal is submitted and the COREMA must approve it if the project complies with existing laws (Tecklin et al. 2011). These characteristics of the regulatory system created by NEFL have allowed it to approve the majority of development projects, even those causing significant environmental harm.

"Megaprojects" and the growth of environmentalism

The approval of several large, environmentally harmful "megaprojects" under NEFL has generated protest and environmental awareness. Silva (2018) identifies three high-profile conflicts that shaped the national debate. First, in 1989, the massive Pangue and Ralco hydroelectric dam proposals on the Bío-Bío River in south-central Chile were announced. These dams threatened to destroy local ecosystems and displace Indigenous communities, leading environmental and Indigenous groups to organize protests and media campaigns. Despite legitimate concerns about the project, CONAMA approved the EIAs for the dams under pressure from the government (Carruthers and Rodriguez 2009, Silva 2018). The next major conflict, over a gold mining project called Pascua Lama in Northern Chile, began in 1996 and continued for over two decades.[1] This project endangered glaciers that provided water to local Indigenous communities and farmers, drawing international condemnation and protest (Urkidi 2010, Haslam 2018).

Finally, the conflict over a paper pulp plant near the coastal town of Valdivia is widely seen as a watershed moment in the Chilean environmental movement (Tecklin et al. 2011, Sepúlveda and Villarroel 2012). The project was controversial because it would discharge its waste into a protected wetland home to black-necked swans. In 2004, after the swans began dying in the hundreds, mobilizations succeeded in causing a temporary shutdown of the plant, the first ever reprimand of a billion-dollar industry (Sepúlveda and Villarroel 2012). This conflict was televised nationally, causing public outrage and generating calls for reform (Sepúlveda and Villarroel 2012, Silva 2018). Taken together, socio-environmental conflicts such as these drew into question the legitimacy of CONAMA and the environmental regulatory system, as the public saw repeated examples of their failure to protect the environment (Sepúlveda and Villarroel 2012, Silva 2018).

In 2009, the Bachelet government passed a reform of NEFL aimed at increasing its legitimacy. There is considerable debate over the motivation for this reform, with some authors emphasizing the importance of Organisation for Economic Co-operation and Development (OECD) accession talks (Tecklin et al. 2011), others the role of protests in creating "internal environmental demand" (Sepúlveda and Villarroel 2012), and still others describing the complex

[1] In September 2020, after years of protest, Chile's First Environmental Court ordered the Pascua Lama mine to close. However, Barrick, the Canadian mining company that operated the project, is reportedly considering other mining operations in the area (Amos-Landgraf 2021).

interactions between these factors (Silva 2018). In any case, most agree that the changes made by the reform bill were insufficient. The bill created a stronger regulatory system by establishing a Ministry of the Environment and an enforcement agency to monitor project permits (Tecklin et al. 2011). However, more progressive proposals by Chilean environmental organizations were rejected by conservative members of the Chilean Senate (Tecklin et al. 2011, Silva 2018). The reform did not provide a mechanism for expanding citizen participation in the environmental review process, one of the main criticisms of the EIA system, nor did it implement substantive changes to overcome the perceived lack of legitimacy of the system (Sepúlveda and Villarroel 2012). Overall, the 2009 reforms left significant environmental demands unfulfilled.

Despite the lack of a decisive policy victory, the environmental movement in Chile has gained strength and effectiveness over time. As described previously, conflicts over "megaprojects" have drawn public attention to environmental causes, resulting in a few successes. A few years after production at the paper plant in Valdivia was temporarily halted by activists, protesters succeeded in stopping the construction of the highly controversial HidroAysén dams. These dams would have flooded nearly 15,000 acres of Northern Patagonia but were stopped by activists through a seven-year campaign, culminating in 2015 with the revocation of the dams' EIA permit (Pearson et al. 2013, Barandiarán 2018, Broitman and Kreimer 2018). Throughout these conflicts, Chilean environmental organizations have grown, networked, built coalitions, developed policy strategies, and organized protest campaigns in partnership with students, women's organizations, and Indigenous groups (Silva 2018).

The *estallido social* or "social outburst"

In October 2019, protests rocked cities across Chile. They began with high school students calling for a fare evasion on the Santiago metro after fees were increased by 30 pesos, about 0.27% of the minimum wage, on a transport system that 2.8 million people rely on daily (Garcés 2019, Gonzalez and Morán 2020). On October 18, after a week of jumping subway turnstiles, the fare evasions evolved into protests, and then the burning of metro stations (Garcés 2019). The protests quickly spread across the country, driven in part by the government's poor handling of the situation: instead of taking action to de-escalate the conflict, President Piñera declared a state of emergency in the Santiago area, implemented a curfew, and put the military in the streets for the

first time since the end of the dictatorship (Garcés 2019, Somma et al. 2020). These actions were later extended to the majority of the country as the protests grew (Ansaldi and Pardo-Vergara 2020). Further demonstrating his disconnect from the Chilean people, on October 21, Piñera declared that Chile was "at war against a powerful, relentless enemy," angering the many peaceful protesters and others who supported them (Ansaldi and Pardo-Vergara 2020, Somma et al. 2020). In response, on October 25, more than 1.3 million people demonstrated peacefully in downtown Santiago's Plaza Italia (Ansaldi and Pardo-Vergara 2020).

A common refrain during the protests, which continued for months after the initial outburst, was "no son 30 pesos, son 30 años." Despite the initial reason for protests being the metro fare increase in Santiago, the real issues at stake were the legacies of the dictatorship, still prominent 30 years after the return to democracy. These include the pension system, which is private and pays 80% of recipients less than the minimum wage, the health care system, which is poorly funded, and the education system, which is inadequate unless you can afford to pay for a private school (Ansaldi and Pardo-Vergara 2020). Additionally, protesters raised the issues of political corruption, low wages, high cost of living, and general structural inequality that disadvantages poor and working-class Chileans (Garcés 2019). All of these problems culminated in the demand for a new constitution, this time written by and for citizens.

On November 15, this demand was made a possibility when all major political parties announced they had agreed on a procedure to write a new constitution. The first step in this process was a plebiscite to ask Chileans whether they wanted a new constitution and if so, who should write it – either a convention composed of equal numbers of members elected by the public and parliamentarians, or one composed entirely of elected members (Ansaldi and Pardo-Vergara 2020). This plebiscite was originally to be held in April 2020 but was postponed due to the COVID-19 pandemic, which also put an end to the protests, still ongoing in mid-March (Badilla Rajevic 2020). On October 25, 2020 "apruebo" (approve) won with 78% of the vote. Voters opted for new constitution written entirely by members elected for this purpose, with these elections to be held in May 2021 (Bonnefoy 2020). Interestingly, some of the regions with the highest percentage of approval for the new constitution were "zonas de sacrificio" (sacrifice zones), regions with high levels of pollution (Silva 2020, Le Saux 2021).

Social movements

Tarrow (2011) defines a social movement as "sequences of contentious politics based on underlying social networks, on resonant collective action frames, and on the capacity to maintain sustained challenges against powerful opponents" (7). At the center of this definition is contentious collective action, or group action used by ordinary people, particularly those who "lack regular access to representative institutions," to challenge the power structure. Collective action can take many forms, ranging from marches to road blockades, but is often disruptive and reflects the culture and history of the society in which it takes place. People join in these actions because they recognize that they have a common interest, value, or claim. Critically, it is only when collective challenges to those in power are sustained over time that contentious collective action becomes a social movement. These actions are sustained by drawing on social networks, the informal connective structures between individuals in society, and developing collective action frames, shared understandings and identities that justify action and define targets for grievances (Tarrow 2011).

An individual's decision to participate in collective action is influenced by multiple factors at the personal, group, and state levels. Looking at the individual level, Schussman and Soule (2005) identify three main reasons for protest. The first, biographical availability, is the lack of personal constraints that can increase the costs of protest participation, such as being married, having kids, and being employed. Age is linked to all these personal characteristics and past research has shown that younger people and students are more likely to participate in protests than older generations. Second, the political engagement of an individual affects their propensity to protest. People with more interest in politics, better access to information, a stronger sense that their actions matter, and more liberal viewpoints are more likely to engage in protest. Finally, structural availability refers to the interpersonal networks that bring people into a protest movement. Particularly, membership in organizations is linked to protest participation, since members form social ties with many other people, increasing the likelihood they will know someone involved in the movement and be asked to join.

At the group level, organizations and their members are a key component. As described above, organizations help bring people into a social movement. Individuals who are asked to protest are far more likely to do so than those who are not asked, and individuals who participate

in organizations are much more likely to be asked to protest than nonmembers (Schussman and Soule 2005). Organizations can also provide structure, leadership, and resources in a movement, increasing its longevity. Additionally, new organizations and coalitions can arise from interactions during social movements (Tarrow 2011).

At the national level, there are structural and political features that may motivate protest participation. For example, economic conditions, strength of institutions, and the type of government are all important. However, it is people's perceptions of these factors that are critical. If people feel that their government and institutions provide mechanisms for them to improve their situation, they may not protest (Justino and Martorano 2019). On the other hand, if they think their government is corrupt, they may be more likely to protest. Similarly, Tarrow (2011) describes the role of changing "political opportunities and threats" in leading to protest events. Political opportunities are shifts that increase the likelihood that protest will be effective, such as increased institutional access, demonstrated vulnerability of authorities and elites, and reduced capacity for state repression. Threats are the costs of action, which can inhibit protest if they are too high, or the costs of inaction, which can promote protest if perceived as significant. These changing opportunities and threats provide openings for social movements like the *estallido social*.

METHODS

Student survey

Data collection

To understand the role of environmental concerns in students' decisions to protest, I conducted an online survey. I created the survey using Qualtrics and distributed it through an anonymous link via email to professors at Pontifical Catholic University of Chile, University of Chile, University of Santiago de Chile, and Alberto Hurtado University. In the distribution email, I asked professors to forward the email and survey link to their students and colleagues. This email was sent out on December 1, 2020 and the survey collected responses for 1 month. Survey questions focused on protest participation, reasons for protest participation, and level of environmental concern (Appendix A). I also collected information on personal characteristics such

as age, political identification, and organization membership which the literature indicates are important determinants of protest participation, to assess the role of these variables in the *estallido social*.

To measure environmental concern, I used the New Ecological Paradigm (NEP) Scale (Dunlap et al. 2000). This scale was developed in the 1970s by Dunlap and VanLiere to measure what they saw as a fundamental shift in how people viewed the relationship between humans and nature. Borne out of environmental movement in the US, the scale originally had 12 Likert items but was revised in 2000 to 15 items (Dunlap et al. 2000). Although the NEP Scale has been criticized in recent years due to its narrow conceptualization of environmentalism and inconsistency in dimensionality, it remains a widely used measure of environmental concern and has been validated in studies worldwide (Bernstein 2020).

Some issues with the NEP Scale may be due to its inconsistent deployment. It has been used interchangeably as a measure of beliefs, values, attitudes, and worldviews and employed in forms that differ in the number of scale items and length of Likert scale (Hawcroft and Milfont 2010, Bernstein 2020). Additionally, authors often fail to publish important information about their sample and results, including average age and gender composition of respondents, internal validity of the scale, and the standard deviation of their NEP scores, limiting the ability to compare scores between studies (Hawcroft and Milfont 2010). Although there are many alternative scales that try to measure environmental beliefs, there is no clear superior option (Bernstein 2020). Thus, even critics concede that the NEP Scale is currently the best standardized measure for environmental attitudes, and that the scale has predictive validity because environmentalists score higher than a random group (Hawcroft and Milfont 2010).

In past studies, the NEP Scale has been successfully used in Chile to measure environmental beliefs (Cordano et al. 2011, Moyano-Díaz et al. 2011, Moyano-Diaz and Palomo-Vélez 2014). Its previous use in Chile is important because culture and language may impact the reliability of measurement instruments (Cordano et al. 2011). I used an 11-item Chilean Spanish version of the NEP Scale validated by Moyano-Diaz and Palomo-Veléz (2014) in my survey. The scale asks respondents to rank these 11 statements, representing both ecocentric and anthropocentric views of the environment, on a 5-step Likert scale from strongly agree to strongly disagree (Appendix A).

Data analysis

To analyze the results of my survey, I used descriptive statistics and calculated measures of association among variables. First, I exported survey responses from Qualtrics as a .csv file and read them into RStudio (R Core Team 2020, RStudio Team 2020). I calculated summary statistics for each variable and visualized responses using the *ggplot2* package (Wickham 2016). To assess the normality of continuous variables, I used the Shapiro-Wilk test. For non-normal variables, median and interquartile range (IQR) are reported instead of mean and standard deviation (SD).

I used the *DescTools* package to calculate statistical measures of association (Andri et mult. al. 2021). Lambda (λ) describes the relationship between pairs of nominal variables, such as gender and whether the respondent participated in protests. Lambda represents the proportionate reduction in errors that comes from knowing the value of one variable when trying to predict the value of the other variable. It varies from 0 to 1, with values close to 1 indicating a strong statistical association. Gamma (γ) is a similar measure of association, but for pairs of ordinal variables. Gamma additionally indicates the direction of association, ranging from -1 to 1 (Babbie 1990). This measure was used to describe the relationship between a respondent's NEP score and the amount they protested. To assess the internal validity of the NEP Scale in the context of my sample, I calculated Cronbach's alpha using the *psych* package (Moyano-Diaz and Palomo-Vélez 2014, Revelle 2021). Since my sample was not randomly selected, I cannot generalize my results to the overall population of university students in Chile. I therefore did not conduct any tests of statistical significance for my data, since they measure the likelihood that a relationship is the result of sampling error.

Environmental organization interviews

Selection of organizations

To understand how environmental organizations viewed and participated in the *estallido social*, I conducted semi-structured interviews with representatives of Chilean environmental organizations. I identified potential interviewees through the following process. I began with the membership list of a Chilean environmental networking platform, the Sociedad Civil por la Acción

Climática (Civil Society for Climate Action or SCAC, https://www.porlaaccionclimatica.cl/). SCAC brings together over 130 member organizations, including many of Chile's environmental groups, to work on climate change. From the SCAC membership list, I eliminated organizations with a non-environmental focus, including unions, civil rights groups, political parties, and university centers, as well as environmental organizations which were either very local or international in focus. I characterized each remaining organization by their outlook, age, and mission, and selected 13 to represent the breadth of Chilean environmental organizations, ranging from more traditional to more progressive. I also included two non-SCAC affiliated organizations that had cultures, missions, or methods distinct from the selected SCAC organizations.

After selecting these organizations, I reached out to representatives by email. Out of the 15 organizations that I attempted to contact, 8 responded affirmatively to my request to interview. These organizations ranged in size from 3 to 40 staff members. Although all have an environmental focus, most also work towards social goals and consider themselves to be socio-environmental rather than purely environmental organizations. I spoke to the President or Executive Director at most of the organizations (Table 1).

Interview protocol

I conducted interviews remotely via Zoom in January and early February 2021. Each interview lasted 40 minutes on average, ranging from 15 minutes to an hour and a half, and was recorded with participants' permission. Participants also agreed to have their name and organization's name included in this work. Interview questions focused on perspectives on and participation in the *estallido*, interaction with other organizations during the *estallido*, and opportunities for improving environmental governance in Chile through the constitutional process (Appendix B). I transcribed the interviews using Trint and manually verified transcriptions before beginning the coding process.

Interview coding

After conducting interviews, I developed coding categories based on the patterns shown in responses following the process described by Creswell (2014). Example codes included

"participation," "relationship with other organizations," "outlook for change," and "role of environmental concerns." I coded each interview manually in Word and organized coded data in an Excel spreadsheet to visualize the commonalities and differences in organizations' responses.

Table 1. Characteristics of organizations interviewed.

Organization	Representative's Position	Description	Number of employees[2]	Date founded
Casa de la Paz https://www.casadelapaz.cl/	Executive Director	Non-profit foundation focused on citizen participation and sustainable development through dialogue	15	1983
CEUS https://www.ceuschile.cl/	President	Volunteer-based organization working to empower young people to participate in environmental politics	40	2018
Chile Ambiente https://www.chileambiente.cl/	Executive Director	Non-profit corporation aimed at conservation of nature and sustainable development through public policy and private projects	4-5	1992
Chile Sustentable http://www.chilesustentable.net/	Communications Manager	NGO that works to pass environmental laws through lobbying and environmental education	6	1997
Cverde https://www.cverde.org/	President	Youth-led NGO focused on sustainability though projects, environmental education, and volunteering. Also has a linked student organization	33	2014
Ecosistemas https://www.ecosistemas.cl/	President	Non-profit corporation specializing in environmental activism and dialogue, with a focus on protecting rivers and watersheds	3	--
FIMA https://www.fima.cl/wordpress/	Research Assistant	Environmental law organization working towards environmental justice through litigation, research, and environmental education	21	1998
Fundación Nodo Social https://nodosocial.org/	Executive Director	Interdisciplinary organization focused on territorial sustainability and participatory local governance	10	2014

[2] This reflects the number of permanent employees, but several organizations said they hired on additional staff for specific projects.

RESULTS

Student survey

Respondents

Of the 40 individuals who completed the survey, 62.5% (n = 25) identified as women, 27.5% (n = 11) identified as men, and 10% (n = 4) identified as non-binary (Table 2). The age of the respondents ranged from 19 to 29, with an average of 21.8 years (SD = 2.49). Only one respondent identified as being part of an Indigenous group. The majority of respondents were from the Santiago Metropolitan Region (n = 32) and were students at the Pontifical Catholic University of Chile (n = 33). The rest of the respondents attended the University of Chile (n = 7). Their majors were Anthropology (n = 22), Medicine or Veterinary Medicine (n = 10), Archaeology (n = 5), Sociology (n = 2), and Astronomy (n = 1). By the end of 2019, most respondents had only completed a few years of their degree (median = 2, IQR = 2), with a range of 1 to 6 years completed. Only one respondent was not a full-time student. In comparison to the overall student populations at the Pontifical Catholic University of Chile (PUC) and the University of Chile (UChile), my sample overrepresents females and students in social science and veterinary medicine majors (Table 2).

Table 2. Characteristics of survey respondents compared to overall student population at PUC and UChile (%). Based on data provided by the universities, which only reported binary gender statistics (Pontificia Universidad Católica de Chile 2020, Universidad de Chile 2020).

Characteristic	Respondents	PUC	UChile
Gender			
Male	27.5	46.5	49.3
Female	62.5	53.5	50.7
Non-binary	10	-	-
Area of Study			
Social Sciences	75.0	6.4	21.3
Medicine/Health	15.0	11.0	17.2
Veterinary Medicine	10.0	0.3	3.9

Protest participation

A majority of respondents (87.5%, n = 35) reported participating in a public protest activity between October 2019, when the *estallido* began, and March 2020, when COVID-19 related restrictions went into place. Of these participants, all reported protesting more than once during this time period. The most frequent response was that they participated 20 or more times (n = 11), followed by between 6 and 10 times (n = 9). Participants also reported taking part in diverse forms of protest. Almost all had participated in a march or demonstration. In addition, 32 participated in *cacerolazos*, a protest form in which participants bang on pots and pans. Many also took actions in the street (n = 21) such as blocking roads, participating in musical performances, dances, or other artistic displays, or occupying buildings and public spaces. The same number reported participating in other actions such as strikes or evading the metro fare. The least frequently reported form of participation (n = 19) was engaging in *cabildos* or *asambleas ciudadanas*, meetings in which community members came together to discuss the country's situation and potential solutions.

The majority of respondents (n = 33) had also participated in a protest in the ten years prior to the *estallido social*. Most reported participating "every now and then" (n = 16) or "frequently" (n = 10). Reasons for past protest varied, with common topics being education (n = 20), feminism/gender equality (n = 14), and environmental issues (n = 13).

NEP scores

The average NEP score among all respondents was 4.09 (SD = 0.38) out of a maximum of 5. The distribution was normal with a Shapiro-Wilk p-value above 0.05 (Figure 1). The responses yielded a low value of Cronbach's alpha, 0.54. The average NEP score of respondents who did not participate in a protest activity was slightly lower than participants, 3.95 versus 4.11. However, as only five respondents, or 12.5% of my sample, did not participate in any protest events, the importance of this difference should not be overstated.

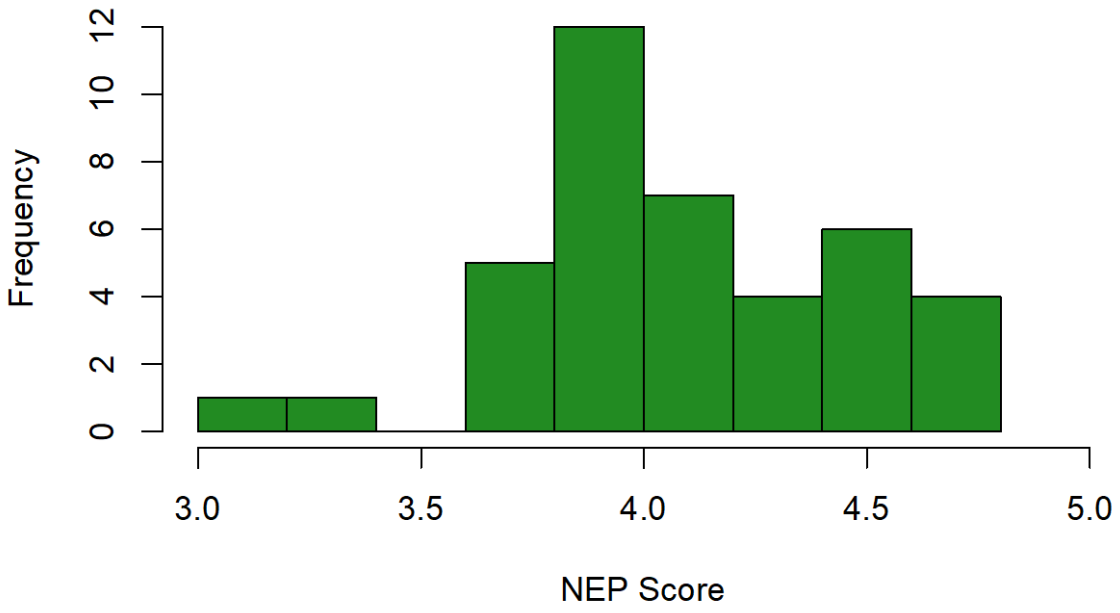

Figure 1. NEP score distribution among all respondents (n = 40). NEP scores were calculated by first assigning a numeric value to Likert scale points, so that strongly disagree = 1 and strongly agree = 5. Statements representing anthropocentric views of the environment were reverse scored so that a high ranking always indicated pro-environmental beliefs. Responses for each statement were then tallied and divided by the total number of statements to compute each respondent's NEP score.

Additional independent variables

In addition to NEP score, other variables studied that may affect protest participation were gender, age, political identification, and organization membership (Table 3). On a scale from 0 to 10, where 0 is politically far left and 10 is far right, the distribution of respondents' political identification was heavily right-skewed, with most respondents leaning politically left. About a quarter of respondents (22.5%, n = 9) were already participating in some kind of organization when the *estallido* began. Of this subset, 3 participated in environmental organizations.

Table 3. Additional independent variables.

Variable	Items	Response	Descriptives
Age	Age (in years)		Median = 21 IQR = 2.25
Gender	What is your gender identity?	Female Male Non-binary	62.5 % 27.5 % 10 %
Organization Membership	Do you participate in any organizations? Since when have you participated in them?	Yes Before October 2019	22.5 %
Political Identification	On a scale from 0 to 10, where 0 is far left, 5 is center, and 10 is far right, where would you place your political position?	Left (0-3) Center (4-7) Right (8-10)	72.5% 25.0 % 2.5 %

Measures of association

There were few clear trends between the independent variables studied and protest participation. There was no relationship between NEP score and amount of protest participation (γ = 0.05). Graphing these two variables together similarly reveals little association between the two (Figure 2). The strongest association was between political identification and amount of protest. For this pair of variables, gamma was -0.46, reflecting that left-leaning respondents were more likely to protest frequently. Age had no relationship with amount of protest (γ = -0.01). There was also no association between gender and protest participation or organization membership and protest participation (λ = 0 for both).

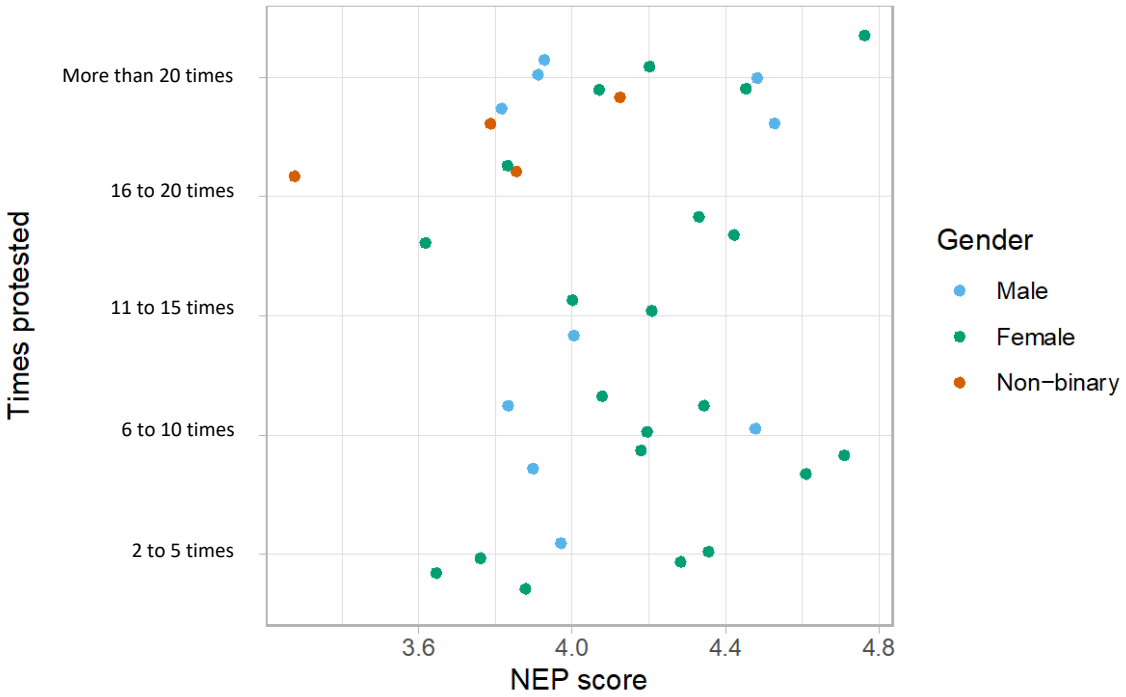

Figure 2. Amount of protest participation versus NEP score (n = 35). The color of each point corresponds to the gender identity of the respondent.

Demands

When asked to rank a list of demands prevalent in the *estallido* on a scale from "very important" (5) to "not important" (1), respondents on average rated all demands very highly. The top 5 highest rated demands were "protection of the environment" (4.9), "quality, universal healthcare" (4.88), "right to water" (4.83), "no more sacrifice zones" (4.78), and "gender equality" (4.78) (Figure 3). Three of these top five demands are environmental.

However, when protest participants were asked to state the top three demands for which they protested, non-environmental themes dominated. The protesters said they were primarily concerned with the "government and the repressive neoliberal system," followed by healthcare, a new constitution, education, inequality in general, and gender equality. Water rights and environmental protection, though important motivators for some protesters, ranked much lower on this list (Figure 4).

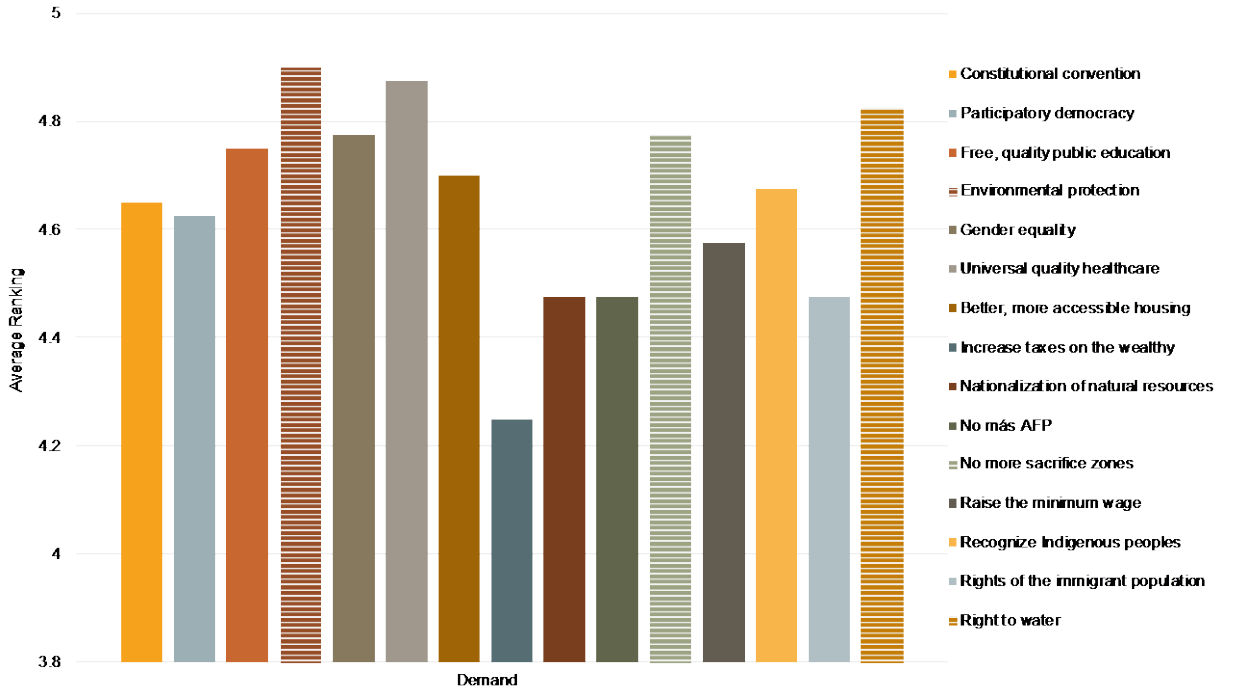

Figure 3. Average demand ratings, all respondents (n = 40). Environmental demands are indicated by a striped pattern.

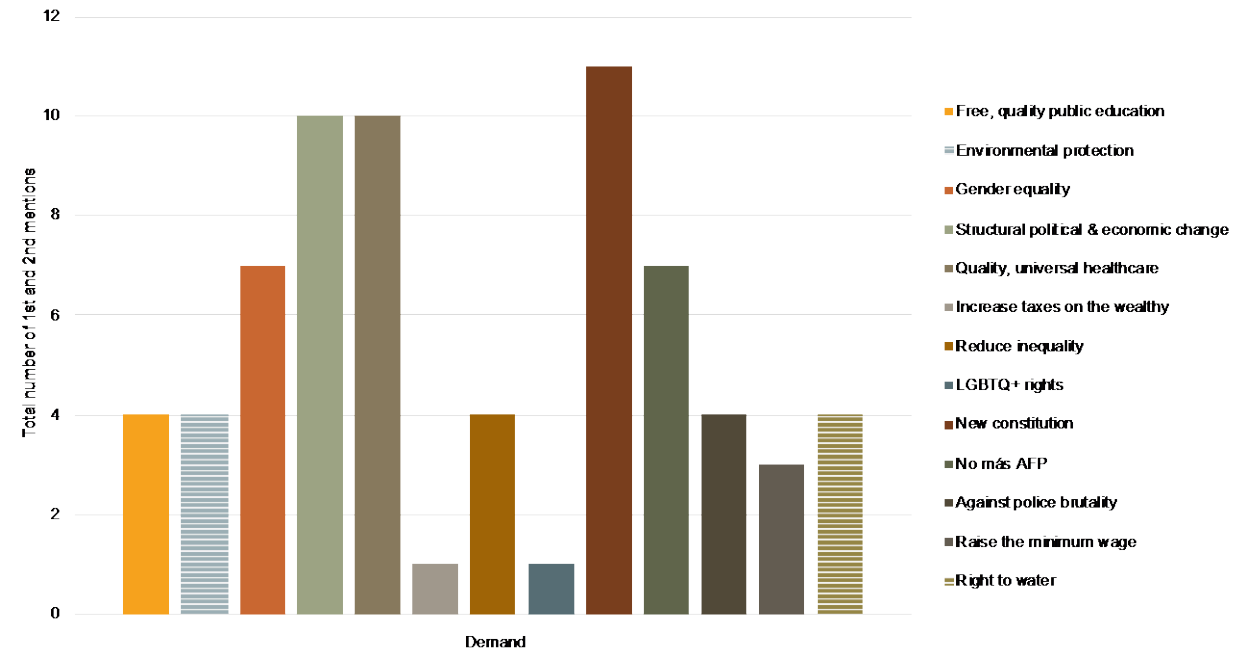

Figure 4. Protesters' top demands in the free response question (n = 35). The vertical axis is the number of times each topic was listed as a primary or secondary motivation to protest.

Environmental organization interviews

Response to the estallido

When asked about their response to the *estallido*, many representatives of environmental organizations that I interviewed said that they were surprised by the format and magnitude of the uprising but not the fact that it occurred. One representative said they had always warned of the possibility of an *estallido*: "our institution always reminded our government … that this could happen at any moment."[3] Others were less assertive, with one using the phrase "the general after the battle" to describe how retrospectively, the *estallido* seemed "very natural given the structural conditions facing the country" but that no one expected "that it would explode in the manner that it exploded."

Almost all identified structural inequality as the overarching reason for the *estallido*. They described how this inequality is "multifaceted," meaning that not only is there a huge income gap between rich and poor Chileans, but low-income Chileans also face challenges such as lower quality education, poor access to health care, and greater likelihood of living in polluted areas. Several traced these issues back to the neoliberal economic system implemented during the Pinochet dictatorship, noting that there hasn't been the "political willpower" to change it since the return to democracy. One representative went back even further, saying that while Chile's "oligarchic, class-conscious, racist" "paradigm" was codified under the dictatorship, it has been in place since "the Europeans invaded this land."

One theme that came up frequently when talking about the *estallido* was violence, both against and from protesters. Most representatives said they were very concerned about human rights violations and brutal repression of protesters on the part of Chile's police force. They mentioned in particular the significant number of protesters who lost an eyeball due to being shot in the eye with rubber bullets. However, some representatives were also worried that some young protesters had become too violent in response, to the point that they thought that the protesters "were skeptical that this could have a peaceful solution." One older interviewee described how his experience during the military coup that installed General Pinochet had made him a pacifist. He said that young Chileans "haven't experienced the violence that we experienced in the military

[3] All translations are my own.

coup. They don't have that perspective, they don't really know what it means when a country truly, truly explodes."

Organization representatives consistently responded that the environment was not a prominent concern in the *estallido* but rather a "sub-agenda" or a "secondary demand." The priority for many Chileans, they said, was "economic survival." Several said that the absence of environmental demands was partially due to a lack of environmental education and suggested that protesters didn't really understand the importance of the environment to their everyday lives. Others felt differently, saying that the *estallido* began as a "violent reaction" to socioeconomic inequities, but later incorporated other demands, including environmental ones. Representatives frequently brought up water rights as the most important environmental demand in the *estallido*.

Many also connected environmental, social, and economic issues, adding that while the environment was not a primary concern in the *estallido*, there is an environmental component to the structural inequality at its root. Representatives disagreed on whether or not protesters saw this connection. One representative described how the same protesters who supported the demand "no más zonas de sacrificio" (no more sacrifice zones), which calls for an end to the extreme pollution of communities by energy plants, also want to reduce fuel taxes and nationalize copper and lithium resources, demands which imply environmental harm. Another representative echoed this idea of a disconnect between seemingly environmental demands and environmental concern, saying that the general conversation about environmental themes was at "the level of slogan, without a deeper understanding." Others felt that protesters did understand that Chile's neoliberal economic system has caused both social and environmental inequalities, or at least, they understood that their "position of socioeconomic vulnerability" made them more susceptible to poor environmental conditions.

Several representatives discussed the role of past environmental protests in leading to social protests. They credited the Patagonia Sin Represas (Patagonia without Dams) campaign, which successfully fought against the HidroAysén dam projects in the south of Chile, in mobilizing Chileans to protest in the streets for the first time since the dictatorship, in 2011. In their view, this environmental mobilization "significatively contributed" to later social mobilizations such as the student movement, and these mobilizations continued to build up until the "explosion" that was the *estallido* in 2019.

Organization participation

Different organizations participated in the *estallido* in different ways, but generally did not see themselves as protagonists. Only a few said they participated in marches as an organization, but almost all said that they and other organization members participated as individuals. Many saw their role in the *estallido* as promoting dialogue around solutions to the country's problems and introducing environmental themes to the public discussion. To this end, they organized and participated in *cabildos* and *asambleas*, ran social media campaigns, communicated through the traditional press, and created podcasts. Several cautioned that while they promoted environmental themes during the *estallido*, they felt that the more general social themes should be central: "We wanted to contribute to the movement, but not detract from it by wanting to be protagonists of it … we wanted to respect the importance of other spaces and mainly contribute to the environmental aspect."

All representatives said they worked with other organizations to construct a joint response to the *estallido*. As all but one of the organizations interviewed is part of the Civil Society for Climate Action (SCAC), many highlighted their collaboration within SCAC during the *estallido*.[4] Member organizations joined SCAC prior to the *estallido*, as SCAC was formed primarily to generate public awareness of environmental themes ahead of the 2019 United Nations Climate Change Conference, COP 25, which was to be held in Chile. When COP 25 was moved to Spain due to the *estallido*, many organizations participated in a "parallel COP" organized by SCAC. Representatives described how SCAC played a coordinating role throughout the *estallido*, organizing marches, *cabildos*, and social media campaigns and later bringing organizations together to develop proposals for the new constitution. SCAC is also part of a larger "network of networks" called Nuevo Pacto Social that was formed in response to the *estallido* and brings together a wide group of social organizations. All organizations interviewed participate in Nuevo Pacto Social either directly or through SCAC.

Although all of the organizations collaborated with others during the *estallido*, few formed new connections during this time. Instead, they described a sense that, during the *estallido,* civil

[4] Casa de la Paz, the only organization not part of SCAC, said they viewed its unification of environmental organizations "with hope," but did not feel comfortable participating in it because they felt it placed too much emphasis on activism rather than dialogue.

society as a whole came together. One representative observed that while "civil society in Chile is very fragmented" and "it is difficult for us to come to an agreement," the *estallido* was "the moment in which we have united in recent years with the best results." Representatives expressed that the environmental movement in particular has unified around the goal of incorporating environmental themes into the new constitution.

Views on the new constitution

Organizations varied in the proposals they felt were most important to see in the new constitution. The most common theme that came up was the need for a more decentralized, territorial based governance system. One representative explained why Chile's highly centralized government is problematic: "The institutions, for example, that today make decisions about which projects are conducted in the territory, are institutions that are clearly political… They are actors that report to the central government and not the territory." Representatives felt that autonomous regional governance would result in a greater environmental focus in decision making. A second frequently mentioned goal was changing the country's system of natural resource ownership to better protect these resources for the benefit of all Chileans, including future generations.

Representatives also highlighted many new rights they hope the new constitution will recognize. These include human rights, such as the right to live in a healthy and ecologically balanced environment and the right to water, but also rights for nature itself. To defend these new rights, organizations want to create a "Defensoría Ambiental," a public institution that would advocate for the environment and communities and would be independent from the central government.

Many organizations are supporting the Constitución Ecológica (Ecological Constitution), a set of proposals developed by SCAC.[5] While some representatives told me that these proposals were developed and agreed upon by all SCAC members, there was not unanimous, unqualified support for the Constitución Ecológica among representatives. The two youth-oriented organizations I interviewed, Cverde and CEUS, both have their own set of proposals. Cverde's constitutional project is called Econstitución, which they call an "ecocentric constitution," one that

[5] Available here: https://www.porlaaccionclimatica.cl/sociedad-civil-por-la-accion-climatica-lanza-sus-propuestas-para-una-constitucion-ecologica/

is "even more ambitious in terms of sustainability than an ecological constitution." Several representatives said that improving democratic participation was their primary goal in the new constitution: "we support the Constitución Ecológica, but principally a more democratic constitution."

Representatives were generally hopeful that the new constitution would be beneficial for the environment but expressed doubts about the process as well. Many said that the challenge they currently face (as of January 2021) is getting enough candidates with environmental proposals in their platforms elected to the constitutional convention. Several were concerned that they would not have the two-thirds majority necessary to make significant changes, because "the right today is unified in just one list (of candidates)" while "there are going to be about 15 lists from the center left." They fear that the lack of unification on the progressive side will dilute votes for their candidates, resulting in greater representation of their conservative opposition. As such, some representatives were pessimistic that transformative change, such as changing the country's economic model and system of private property, would be written into the new constitution. Representatives also noted that changing the constitution is only a first step. Even if the changes they are advocating for are included in the new constitution, they must then be implemented in order to create "real transformations." Several referenced Ecuador and Bolivia, countries which adopted pro-environment constitutions in 2008 and 2009, respectively, yet still have not seen significant change on the ground.

However, some representatives struck a positive note, saying that even though they might not achieve everything they want in the new constitution, they are hopeful that increased democratic participation will allow these changes to be made in the future. While they think that the new constitution will create a more active, participatory democracy, they also felt that the Chilean public was already more involved in political matters than it was prior to the *estallido*: "[the *estallido*] taught Chilean society…that you have to get involved and that you have to demand things because citizens have this power over politicians… citizens don't make the final decision, but citizens do have a lot of power."

Representatives also expressed their sense that there is increased public attention to environmental topics today than in the past. Several pointed to climate change, which even a few years ago was not an important topic of discussion in Chile. COP 25, they said, "put [climate change] on the agenda." Even though it ultimately did not occur in Chile, the conference forced

the country to "update its climate agreements, improve its institutions, improve its climate proposals, etcetera." Some also described a growth in "environmental consciousness" among the Chilean public, which they hoped would lead to the election of environmentally aware politicians and eventually improved environmental legislation. These representatives felt that one way or another, the "increased public scrutiny" of the governance system generated by the *estallido* would lead to advancement towards environmental goals.

DISCUSSION

As expected, the responses of students and environmental organization representatives indicate that environmental concerns were secondary to other social demands in the *estallido social*. However, they were not absent, as student protest participants demonstrated strong pro-environmental views and environmental organizations participated actively in events surrounding the *estallido*. This reflects positively on the outlook for improving Chilean environmental governance in the future.

Environmental concern of protesters

The demand rankings and NEP scores of survey respondents indicate that student protest participants were concerned about the environment. Out of a list of 15 demands, 3 of the 5 highest rated demands were environmental: "protection of the environment," "right to water," and "no more sacrifice zones." This finding of multiple environmental concerns differs from that of a face-to-face survey of protest participants conducted by the Núcleo de Sociología Contingente (NUDESOC) in November 2019 which asked respondents to rate a similar list of demands.[6] In this survey, only one environmental demand, "protection of the environment," ranked within the top 5 (NUDESOC 2020). One reason for this difference may be the timing of my survey, which was conducted over a year after the *estallido* began. Several environmental organization representatives said that environmental demands were incorporated later in the *estallido*, so it is possible that these concerns were not as prominent at the time of the NUDESOC survey. Additionally, as the NUDESOC survey was not limited to students, it had a much higher average

[6] The NUDESOC demand list, which I modeled mine on, did not include the "right to water" demand.

age of respondents, 33 years compared to 22 years in my sample. Both in Chile and abroad, younger individuals tend to be more concerned about the environment than older ones (Jones and Dunlap 1992, Cadem 2019). Therefore, these two findings do not necessarily conflict with each other, as they represent different populations surveyed at different times.

The high average NEP score of 4.09 in my sample also signals the pro-environmental views of respondents. This finding is consistent with previous studies of Chilean university students, which also identified pro-environmental beliefs in their study samples using slightly different versions of the NEP Scale (Cerda U. et al. 2007, Cordano et al. 2010). The Cerda U. et al. (2007) study, which used a different number of scale items and thus is not a perfect comparison, reported an average NEP score of 3.74, lower than mine but still reflecting a positive attitude toward the environment. The higher NEP score in my study suggests that pro-environmental beliefs have grown over time, although this increase could also be due to different study populations at different universities. Within my study sample, the slightly higher average NEP score of protest participants compared to nonparticipants suggests that protest participants were more concerned about the environment than other students. However, my sample did not include enough nonparticipants to clearly make this distinction.

Concerningly, my responses yielded a low Cronbach's alpha of 0.54, compared to other studies using the NEP Scale in Chile which reported alpha values of 0.7 or above (Cerda U. et al. 2007, Cordano et al. 2010, Moyano-Diaz and Palomo-Vélez 2014). Low alpha values can be due to poor inter-relatedness of test items, too few test items, multidimensionality, or the presence of test items that measure multiple underlying traits (Tavakol and Dennick 2011). In this case, the number of test items was not the issue, since this exact scale has been tested and found sufficient in the past (Moyano-Diaz and Palomo-Vélez 2014). Likewise, while the scale has been found to be multidimensional in some cases (Moyano-Diaz and Palomo-Vélez 2014, Bernstein 2020), in my sample Cronbach's alpha was almost identical when separating out the ecocentric and anthropocentric dimensions. It is possible that this particular group of Chilean university students yielded such a low internal consistency of the scale because they did not interpret the test items as intended. Two respondents did comment that they found this section of the survey confusing. This points to issues with the scale and the challenges of measuring environmental concern more generally, as highlighted by Bernstein (2020). Due to the lack of internal consistency of the NEP

Scale in my survey, demand rankings are expected to be a more reliable indicator of environmental concern.

Although demand rankings demonstrate that protest participants were concerned about the environment, environmental concerns were clearly not a primary motivation to protest. In the free-response question, protesters highlighted themes such as the neoliberal system, healthcare, and education as their top reasons for protesting. These themes parallel findings by the NUDESOC survey of protest participants, which also identified healthcare and education as top demands (NUDESOC 2020). This finding is also consistent with the dominant view of the *estallido* in the media and literature (Garcés 2019, Gonzalez and Morán 2020, Somma et al. 2020), as well as the responses of my interviewees.

Given the homogeneity of my sample, the results cannot provide support for explanations of protest participation based on biographical or structural availability. There was no statistical association between individual characteristics such as gender, age, and organization membership and protest participation. The only individual variable that had any association with protest participation was political identification. Left-leaning individuals were slightly more likely to protest than more conservative individuals, as predicted by the literature (Schussman and Soule 2005). The lack of clear trends can be explained by my sample composition, which consisted primarily of very active protest participants. In general, youth and student status are biographical features which are associated with increased likelihood of protest participation (Schussman and Soule 2005). These participation trends were evident in the *estallido*. In a December 2019 survey of the public by the Centro de Estudios Públicos (Center of Public Studies), 55% of respondents 18-24 and 41% of those with some tertiary education had participated in at least one protest, with lower levels of participation for older respondents and those with less education (Gonzalez and Morán 2020). Similarly, the NUDESOC survey also found that youth and individuals with at least some university education were the most common participants (NUDESOC 2020). Since my target population was university students, the high level of protest participation reported is not surprising. However, as all but five respondents reported protesting, there was not enough variation in my data to address trends in these factors. Self-selection bias likely contributed to the high rate of protest participation in my sample, as individuals who protested may have been more interested in completing a survey about the *estallido*. Lack of random sampling also means that my survey

results should not be generalized, as they are not representative of all Chilean university students or even a specific major within a single university.

Environmental organizations' role

Interviews with environmental organization representatives also support the conclusion that environmental concerns were present, though secondary, in the *estallido*. Although I was only able to interview eight environmental organizations, their responses were fairly consistent in regard to the role of environmental concerns in the movement. Representatives described environmental issues as a "sub-agenda" within the overarching social inequalities that were the focus of the *estallido*. Environmental organizations' roles were also limited compared to the wide repertoire of action taken by protesters (Márquez 2020, Somma et al. 2020). Organizations mainly participated in the *estallido* in intellectual ways, sharing information online and in *cabildos* and *asambleas*. Although organizations and their members participated in marches and demonstrations, they did not organize any, instead focusing on promoting discussion surrounding environmental themes and collaborating with other organizations already in their network to develop proposals for the new constitution.

Interestingly, the reluctance of environmental organizations to take a more active role mirrors the findings of Palacios-Valladares (2020) about the participation of Chile's prominent student movement in the *estallido*. Representatives of the student movement also felt that their demands were secondary to broader social issues and that they had to be "at the service of the people" (Palacios-Valladares 2020). Like environmental organizations' members, individuals in the student movement primarily participated as citizens rather than as part of any specific group. The apparent supporting role of both environmental and student movements in the *estallido* highlights its unusual size and lack of leadership, which other authors have noted (Gonzalez and Morán 2020, Somma et al. 2020, Le Saux 2021). No single movement or organization played a central role, rather, the *estallido* was large enough to incorporate a range of issues, including environmental ones.

Outlook for change

Despite the fact that environmental concerns were not primary demands in the *estallido*, there are several reasons to be optimistic about improving environmental governance in Chile. Most obvious is the opportunity that the new constitution represents. Environmental organizations in Chile are advocating for a broad range of pro-environment proposals to be included in the new constitution, ranging from establishing a human right to water to creating a decentralized governance system. However, there are many challenges to enacting such proposals. The 1980 Constitution did not include a process for drafting a new constitution, so lawmakers had to pass a constitutional reform act to establish the rules for doing so as part of their November 15, 2019 agreement. Under the 1980 Constitution, constitutional amendments require a two-thirds majority vote, giving conservative lawmakers outsized power in designing the process for the constitutional rewrite (Le Saux 2021). Accordingly, the procedure includes several stipulations that give an advantage to right-wing parties that would prefer to maintain the status quo. These conditions include the election of constitutional delegates through the normal electoral system, which disadvantages independent candidates, and the requirement that articles of the new constitution be approved by a two-thirds majority (Ansaldi and Pardo-Vergara 2020, Le Saux 2021). Together, these stipulations create a barrier to transformative change.

While some organization representatives said that the environmental movement and civil society more generally had come together during the *estallido*, it appears that this unification did not extend to their electoral strategy. The right wing has only one ticket for the May 2021 elections that will select members of the constitutional convention, compared to three tickets on the left as well as 2,200 independent candidates (Le Saux 2021). As interviewees expressed, this division makes it unlikely that progressive candidates will comprise the two-thirds majority needed to include structural reform, like transitioning away from an economy based on resource extraction,[7] in the new constitution. One interviewee stated, "I think there will be advances, but they will not be substantial. We are not going to have a major transformation." However, others were still hopeful, describing the selection of candidates as "a fight that [still] has to be fought."

For the environmental proposals that are included in the new constitution, implementation will be a challenge. Interviewees referenced the constitutions of Bolivia and Ecuador, which have

[7] See Hofer (2020) for a detailed explanation of why this goal is essential for Chile and its environment.

been described as "biocentric" and contain many provisions similar to those proposed by Chilean environmental organizations, including the recognition of the intrinsic rights of nature, Indigenous peoples, and the human right to water (Pinto Calaça et al. 2018). Although strongly pro-environment on paper, Bolivia and Ecuador's constitutions have not entirely lived up to expectations (Whittemore 2011, Pinto Calaça et al. 2018, Rice 2020). As one interviewee commented, Bolivia and Ecuador "have very beautiful constitutions. And nothing has changed in the field … because extractivism is very difficult to stop." Chile's own 1980 constitution, while nowhere near as pro-environment as Ecuador and Bolivia's, was one of the first to include the right to live in a pollution-free environment. However, in practice this article has been overridden by Chile's neoliberal economic model, as evidenced by numerous past and ongoing socio-environmental conflicts over harmful development projects (Galdamez Zelada 2017, Silva 2018, Allain 2019). Thus, any pro-environmental proposals included in the new constitution will have to overcome these precedents to be effective.

Still, there is reason for hope. Despite the lack of agreement over candidates for the constitutional convention, many interviewees said that civil society came together during the *estallido*, with the environmental movement in particular unifying around demands for an ecological constitution. This unification is not entirely unprecedented: one representative compared the current moment to 2011, saying that "while in 2011 the unification of the environmental movement was to establish Patagonia Sin Represas, today the unification of the environmental movement is to influence a new ecological constitution that incorporates ecological elements." In the case of Patagonia Sin Represas, the movement successfully halted the HidroAysén dam construction through years of protest (Barandiarán 2018). This comparison is a reminder of what Chile's environmental movement can accomplish when it is united and persistent.

Representatives also discussed the connection between environmental and social demands and suggested that the *estallido* had contributed to a shift in which these issues were viewed as interconnected rather than separate. For example, one representative said that the *estallido* made people realize, "it can't be that some people only concern themselves with the environment and the ecosystems. We also have to worry about the people, about those living in polluted areas or those affected by drought." This change in perspective could strengthen the environmental movement in Chile by fostering increased collaboration with other social groups.

Additionally, the Chilean public, particularly youth, are more aware and concerned about environmental issues than ever before. This shift is reflected in the strong rankings given to environmental demands by my survey respondents as well as the strong pro-environmental positions that youth-led organizations Cverde and CEUS are taking on the new constitution. Interviewees also expressed this sentiment to me directly, with one stating, "environmental issues have, from several perspectives, a much greater weight than they had five years ago." This shift can be explained in part by the growth of environmental protests in the past decade, which has both raised environmental awareness and resulted in some policy victories, including recent forestry and renewable energy policies (Silva 2018, Madariaga 2019).

Increased political involvement caused by *estallido* may also benefit environmental goals. The *estallido* has been widely described as an "awakening" of Chilean society (Ansaldi and Pardo-Vergara 2020, Badilla Rajevic 2020). Interviewees opined that the *estallido* "generated a general questioning from civil society of the system that we live in now," including environmental aspects. They said that citizens are now more likely to get involved in pushing for change, whether cultural, social, or environmental, because *estallido* clearly demonstrated the power of the people to successfully demand these changes. This increased political involvement, combined with increased environmental awareness, are positive signs for improving environmental governance in the future, beyond the new constitution. As one representative expressed, "an educated, trained, environmentally aware critical mass has been generated. And that, I would say, [is] an incentive for the future, because there will be new elected leaders with this awareness … The laws of the new elected Parliament will be able to touch on many themes that aren't going to be resolved in the constitution."

Given that the constitutional process is just beginning, there is ample room for future studies to dissect how environmental organizations are pushing for change in the new constitution and analyze their success when the new constitution is complete. Additional topics of study that interviewees mentioned, but were outside the scope of this thesis, include the role of environmental protests and socio-environmental conflicts as a prequel to other social protests and the impact of the pandemic on the *estallido*, partially explored by Dragnic (2020) and Badilla Rajevic (2020). My thesis focused solely on internal actors, but historically international pressures, such as free trade agreements and international organizations like the OECD, have played a significant role in shaping Chile's environmental policy (Madariaga 2019). As such, identifying and assessing the

impact of any international influences on the constitutional convention is a key area of study moving forward.

Broader implications

The constitutional convention will have a maximum of one year to draft a new constitution (Ansaldi and Pardo-Vergara 2020). During this time period, continued pressure from the public could increase chances that the new constitution will implement transformative changes (Rice 2020, Le Saux 2021). The magnitude and persistence of collective action by the people created the unprecedented opportunity to write a new constitution, despite the current right-wing government. Thus, it stands to reason that even a conservative bloc in the constitutional convention can be influenced by strategic protest. If Chile's environmental movement wants to see significant change in the new constitution, it may be time to take to the streets once again and make their socio-environmental demands heard.

More broadly, Chile is not the only country whose citizens have risen up against neoliberal structures in recent years. Although the protest movements in Ecuador, Hong Kong, Lebanon, and other countries have had distinct causes and goals, they all share the desire to reject the dominant neoliberal paradigm (Calderón 2020, Dragnic 2020, Mayol 2020). As in Chile, environmental themes were not prominent in these protest movements, yet the *estallido social* also highlights how environmental and social justice issues are interwoven. Climate change, resource management, biodiversity loss, land use change, and other socio-environmental issues are urgent global challenges which necessitate making full use of all potential avenues for change. Going forward, more attention should be paid to the role of environmental concerns in broad social movements in order to amplify environmental themes and accelerate progress towards an equitable and sustainable future.

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APPENDIX A: Student survey

Encuesta: Los universitarios frente el estallido de 2019

Hola, y muchas gracias por tomar mi encuesta. Me llamo Phoebe Goulden y soy estudiante de último año en la Universidad de California, Berkeley. Esta encuesta es una parte muy importante de mi tesis de grado. Te tomará máximo 10 minutos completarla, y va dirigida a estudiantes universitarios en Chile.

Tus respuestas son anónimas y las voy a usar solamente para mi tesis. Si tienes cualquier pregunta, envíame un email a phoebeg@berkeley.edu.

1. Recientemente, los movimientos sociales han levantado varias demandas, listadas a continuación. Indica la importancia de cada una de estas para tí. / *Recently, social movements have brought up various demands, listed below. Indicate the importance of each demand to you (not important - very important).*

- Asamblea constituyente para una nueva constitución / *Constitutional assembly for a new constitution*
- No más AFP / *No more AFP (privately administered pension funds)*
- Protección del medio ambiente / *Protection of the environment*
- No más zonas de sacrificio / *No more sacrifice zones*
- Nacionalización de recursos naturales / *Nationalize natural resources*
- Aumento del salario mínimo / *Raise the minimum wage*
- Educación publica, gratuita y de calidad / *Free, quality public education*
- Salud de calidad y universal / *Quality universal healthcare*
- Acceso y mejora de la vivienda / *Better, more accessible housing*
- Aumento de los impuestos a los más ricos / *Increase taxes on the wealthy*
- Igualdad de género / *Gender equality*
- Democracia participativa y vinculante / *Participatory democracy*
- Reivindicación histórica de los pueblos indígenas / *Recognition of Indigenous peoples*

- Derechos de la población migrante / *Immigrant rights*
- Derecho al agua / *Right to water*

2. ¿Participaste en alguna manifestación, marcha, u otra actividad pública de protesta entre octubre de 2019 y marzo de 2020? / *Did you participate in a public protest activity between October 2019 and March 2020?*

3. ¿En qué tipo(s) de actividad(es) participaste? Elige todos los que aplican. / *What type of activities did you participate in? Select all that apply.*

- Marcha o manifestación / *March or protest*
- Cacerolazos / *Pot-banging*
- Cabildos o asamblea ciudadana / *Community meetings*
- Acciones en la calle (cortes de ruta, intervenciones artísticas, tomas de edificios o espacios públicos, etc.) / *Actions in the street*
- Otras acciones (e.g., huelgas, evasión del metro, etc.) / *Other actions*

4. ¿Cuántas veces participaste en una actividad de protesta entre octubre de 2019 y marzo de 2020? / *How many times did you participate in a protest activity between October 2019 and March 2020?*

- Una sola vez / *One time*
- Entre 2 y 5 veces / *2 to 5 times*
- Entre 6 y 10 veces / *6 to 10 times*
- Entre 11 y 15 veces / *11 to 15 times*
- Entre 16 y 20 veces / *16 to 20 times*
- Más de 20 veces / *More than 20 times*

5. Señala 3 demandas principales por las que te manifestaste. / *List the 3 top demands you protested for.*

Respondents who did not participate in protest (answered no to question 2) were shown this question instead of questions 3–5:

3a. ¿Expresaste tu apoyo o desacuerdo de otras maneras, como por ejemplo: ? / *Did you express your support or disagreement in other ways, for example:?*

- Expresando tu opinión a través de redes sociales / *Expressing your opinion on social media*
- Participando con una organización de tu barrio / *Participating in a neighborhood organization*
- Firmando peticiones que se enviaron a las autoridades / *Signing petitions that were sent to the government*
- Participando en contra-marchas (e.g., por el "rechazo") / *Participating in countermarches*
- No
- Otra. Especifica: _____

6. En los diez años previos al estallido de 2019, ¿habías participado en una marcha o manifestación? / *In the 10 years prior to the* estallido*, had you participated in a march or protest?*

- Nunca / *Never*
- Muy rara vez / *Rarely*
- De vez en cuando / *Every now and then*
- Seguido / *Frequently*
- Muy seguido / *Very frequently*

7. ¿Por qué motivo(s) te manifestaste anteriormente? / *For what reasons did you protest previously?*

8. Indica el grado de acuerdo o desacuerdo con las siguientes frases: / *Indicate your level of agreement or disagreement (strongly disagree – strongly agree) with the following statements:*

- Ir a votar es una manera de generar cambios en el país. / *Voting is a way to generate changes in the country.*

- Las manifestaciones pueden tener un efecto sobre los cambios del país. / *Protests can create change in the country.*

9. En una escala de 0 a 10, donde 0 es muy de izquierda, 5 es centro y 10 es muy de derecha, ¿dónde ubicas tu posición política? / *On a scale from 0 to 10, how do you identify politically?*

10. A continuación, hay una serie de declaraciones sobre la relación entre los seres humanos y el medio ambiente. Marca la opción que más te represente para cada uno. / *Next, you will see a list of statements about the relationship between humans and the environment. Choose the option that best represents your opinion for each one (strongly disagree – strongly agree).*

- Los seres humanos tienen derecho a modificar el medio ambiente natural para satisfacer sus necesidades. / *Humans have the right to modify the natural environment to suit their needs.*
- Cuando los seres humanos interfieren con la naturaleza, las consecuencias son a menudo desastrosas. / *When humans interfere with nature it often produces disastrous consequences.*
- La inventiva humana asegurará que no convirtamos la Tierra en inhabitable. / *Human ingenuity will ensure that we do not make the earth unlivable.*
- Los seres humanos están abusando severamente del medio ambiente. / *Humans are severely abusing the environment.*
- La tierra tiene recursos naturales en abundancia y sólo tenemos que aprender cómo desarrollarlos. / *The earth has plenty of natural resources if we just learn how to develop them.*
- Las plantas y los animales tienen tanto derecho a existir como los seres humanos. / *Plants and animals have as much right as humans to exist.*
- Pese a nuestras especiales capacidades, los seres humanos seguimos estando sujetos a las leyes de la naturaleza. / *Despite our special abilities, humans are still subject to the laws of nature.*
- La llamada "crisis ecológica" de la humanidad ha sido muy exagerada. / *The so-called "ecological crisis" facing humankind has been greatly exaggerated.*

- El equilibrio de la naturaleza es muy delicado y fácil de perturbar. / *The balance of nature is very delicate and easily upset.*
- Los seres humanos aprenderán lo suficiente sobre el funcionamiento de la naturaleza para ser capaces de controlarla. / *Humans will eventually learn enough about how nature works to be able to control it.*
- Si las cosas continúan como hasta ahora pronto experimentaremos una gran catástrofe ecológica. / *If things continue on their present course, we will soon experience a major ecological catastrophe.*

11. ¿ Qué edad tienes? / *How old are you?*

12. ¿Con qué género te identificas hoy? / *What gender do you identify with?*

13. ¿De qué región eres? (o país, en caso de no ser de Chile). / *What region are you from?*

14. ¿Perteneces a algún pueblo originario o indígena? / *Do you belong to an Indigenous group?*

- No pertenezco a ningún pueblo originario o indígena
- Sí, Aymará
- Sí, Rapa-Nui
- Sí, Quechua
- Sí, Mapuche
- Sí, Atacameño
- Sí, Coya
- Sí, Kawéskar
- Sí, Yagán
- Sí, Diaguita
- Sí, otro _____
- Prefiero no decir

15. ¿Participas en alguna organización? Tales como: centros de estudiantes, juntas de vecinos, ONGs, partidos políticos, entre otros. / *Do you participate in any organizations?*

If a respondent answered yes to question 15, they were then shown questions 16–18:

16. ¿En cuántas organizaciones participas? / *How many organizations do you participate in?*

17. ¿Desde cuándo participas en esa(s) organización(es)? Si participas en más de una, responde pensando en la más importante para ti. / *Since when have you participated in these organizations? If you participate in more than one, respond thinking of the organization most important to you.*

- Antes de octubre de 2019 / *Before October 2019*
- Durante el estallido social (octubre 2019 - marzo 2020) / *October 2019 – March 2020*
- Después del marzo de 2020 / *After March 2020*

18. ¿Participas en alguna organización ambiental? / *Do you participate in any environmental organizations?*

19. En octubre 2019, ¿estabas estudiando en alguna universidad en Chile? / *In October 2019, were you studying at a university in Chile?*

20. En octubre 2019, ¿estabas estudiando en alguna universidad en Santiago? / *In October 2019, were you studying at a university in Santiago?*

21. Independientemente de la ubicación, ¿en cuál universidad estudiabas en ese momento? / *What university were you studying at at this time?*

22. ¿Cuál es tu carrera? / *What is your major?*

23. Al fin de diciembre de 2019, ¿cuántos años de tu carrera habías completado? / *At the end of 2019, how many years of your major had you completed?*

24. ¿Estudias a tiempo completo o medio tiempo? / *Are you a full-time or part-time student?*

25. ¿Te puedo contactar para profundizar en tus respuestas? En ese caso, por favor anota un email preferido. / *Can I contact you to learn more about your responses?*

26. Muchas gracias por dedicarte tiempo a mi encuesta. Si quieres añadir algo más sobre los temas de la encuesta o si alguna pregunta te pareció confusa, por favor comentármelo aquí. / *Thank you very much for completing my survey. If you'd like to add anything else related to the themes of the survey, or if any question was confusing, please let me know here.*

APPENDIX B: Environmental organization interview questions

1. a. Usted tiene el puesto de ___, ¿no? / *Your job title is ___, correct?*
   b. ¿Desde cuándo trabaja usted en este puesto? / *How long have you worked in this role?*

2. Primero, ¿me puede contar brevemente sobre (nombre organización) y lo que hace? / *First, could you tell me briefly about (organization's name) and what it does?*

3. En octubre 2019 cuando empezó el estallido, ¿qué le pareció lo que estaba sucediendo a (nombre organización)? ¿Fue cambiando esta percepción de las cosas a medida que continuaba el estallido? / *In October 2019, when the* estallido *began, how did (organization's name) view what was going on? Did this perception change at all as the* estallido *continued?*

4. En la evaluación de la situación que hizo (su organización) ¿les parecía que quienes se estaba manifestando estaban motivados por una preocupación ambiental? / *In the evaluation of the situation that (organization's name) made, did you think that the protesters were motivated by environmental concern?*

5. ¿Cómo participó su organización en el estallido o en los diversos movimientos sociales que surgieron? (Si no participaron: ¿Por qué? ¿Tomaron otras acciones para avanzar los objetivos de la organización?) / *How did your organization participate in the* estallido*? (If they did not participate: Why? Did the organization take other actions to advance their goals during this time?)*

7. Desde su organización, ¿trabajaron con otras organizaciones ambientales como parte de la respuesta al estallido? ¿Y con otras organizaciones sociales (no necesariamente ambientales)? / *Did your organization work with other environmental organizations as part of your response to the* estallido*? Other social organizations (not necessarily environmental)?*

8. ¿Cómo se relacionaron con estos otros grupos? ¿Fue la primera vez que colaboraron, o era esta una relación que ya existía? / *How did your organization interact with these other groups? Had you worked with them previously?*

9. ¿Van a seguir trabajando con esas organizaciones? / *Do you think you will continue to work with these organizations?*

10. ¿Cree usted que el estallido va a resultar en un cambio en política ambiental? ¿Por qué si o no? / *Do you think that the* estallido *will lead to a change in environmental governance? Why or why not?*

11. Desde su organización ¿están trabajando en propuestas para lograr este cambio de política ambiental en la nueva constitución? ¿Cómo? ¿Me puede señalar las tres propuestas más importantes a su organización? / *Is your organization working on proposals to achieve a change in environmental governance in the new constitution? How? What are the three most important proposals for your organization?*

12. ¿Hay algo más que usted quiera compartir sobre su organización, el estallido o la situación ambiental en Chile? / *Is there anything else you'd like to share about your organization, the* estallido*, or the environmental situation in Chile?*