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Chile Case Report: Just Transition in Chile between **environmental (in)justice and corporate co-option**

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Contents

Executive summary

In this report we explore the relationship(s) between **labour and environmental policy making in Chile** and labour perspectives on the **Chilean government's top-down approach to Just Transition** policy development.

We draw on decarbonisation and Just Transition related policy documents produced by labour and state actors between 2019 and 2025. We also draw on a series of 31 expert interviews with trade union representatives (n=18), NGOs (n=4), government actors (n=3), coalfired power station workers (n=5) and academics (n=1). The trade union interviews included actors from Central Unitaria de Trabajadores de Chile (CUT), which is the national trade union organisation in Chile, as well as international union organisations, sectoral federations and confederations and company level unions in sectors deemed to have a (potential) interest in environmental policy making, namely extractive, energy production and transport sectors. All the workers interviewed were from the coal fired power generation sector.

The field of climate policy making in Chile

In 2020, galvanised by their COP25 presidency, the Chilean Government announced ambitious emissions reductions targets which included a rapid phase out of the country's coal fired power sector and a commitment to reaching net zero emissions by 2050 as part of their NDC commitments. Their NDCs also included a state driven Just Transition programme which aimed to integrate the concept into all decarbonisation action taken. This Just Transition programme has been active under both the right-wing presidency of Sebastián Piñera and the left-wing presidency of Gabriel Boric although the meaning of the term and the focus of action has differed between the two governments.

Our review of relevant policy documents and literature indicates that the country's ambitious NDC commitments reflect a long-standing, cross party commitment to a decarbonised energy grid. The enthusiasm for decarbonisation is partly due to the potential of renewable energy sources to improve the country's energy sovereignty, which will reduce the country's susceptibility to and dependence on the volatility of energy supply, which in the past has led to high prices and energy shortages in addition to strategic pressure from ENGOs.

Chile phased out its coal mining sector in the 1990s in favour of cheaper imported Columbian coal and Argentinian gas. However, the Argentinean gas crisis in the early 2000s and drought related fluctuations in hydropower availability have led to price spikes and energy scarcity. These issues have also reduced profits in the mining sector which is a key contributor to the country's export earnings and led to a concern that mining investment may flow to countries where energy prices are lower.

Chile also has a global competitive advantage in renewable energy due to a long coastline and high levels of solar radiation. The potential for low-cost renewable energy and green hydrogen production has attracted high levels of foreign direct investment into these sectors, driven in part by the country's clear desire to position itself as a climate leader on both regional and international stages. This has contributed to a cross party consensus in favour of policies aimed at reducing carbon emissions: on the one side, a right-wing led business sector, that views the energy transition as a new source of investment with a large profit margin; and on the other side, a left-wing environmentalist lobby who view these energies as a strategic part of mitigating climate change. Although, there are some indications that this cross-party consensus on the benefits of the energy transition could break down if a right-wing government returns to power at the next election later this year.

The country's history is also an important factor which is shaping economic policies on just transition. Since Pinochet's military dictatorship seized power in 1973, Chile has pursued orthodox neoliberal policies leading to a highly flexible labour market in which workers have restricted collective rights and insufficient access to public goods such as pensions or healthcare. Organised labour's power is highly restricted and limited by the issues around job insecurity. This has led to high levels of inequality across Chilean society. Since the return to democracy in 1990, both left and right-wing governments have pursued and promoted an extractive model of economic growth based on the export of primary commodities, at significant cost to the biosphere and local population health.

In 2019 the country saw a period of social upheaval during which this extractive neoliberal consensus, also called the *commodities* consensus, was challenged, leading to the election of a new left-wing government in 2021. Elected on a pro-environmental, anti-extractivist platform, Gabriel Boric has continued and expanded the decarbonisation agenda set in motion by his right-wing predecessor Sebastián Piñera. This has included accelerating the phase out of the coal fired power sector, ratifying the Climate Change Law which strengthens the country's legal obligation to respond to climate change, and introducing a new lithium strategy designed to ensure that the country benefits more from this resource and associated environmental impacts are reduced. This has not been without controversy.

It is also important to note that under his presidency both a progressive and a responding regressive draft of a new constitution have been presented to the population in referenda, only to be rejected. Chilean trade unions highly value and have advocated for progressive constitutional change due to its potential to deliver a revitalised labour movement and a relative expansion of the role of the state and social rights.

Labour agency/constraints in environmental policy making

The research for this report analysed the capacity and effectiveness of Chilean organised labour to influence climate policy making and the potential mechanisms through which pressure could be applied. It finds the Chilean labour movement's ability to influence climate policy is extremely constrained. Interviewees identified practical, legal, ideological and cultural barriers to greater union involvement in climate policy making. Further, despite the country's vulnerability to drought, forest fires and water scarcity, climate change has a relatively low salience as a direct threat amongst much of the population.

In practical terms, high levels of labour market churn related to a reliance on subcontracted and precarious labour make it difficult to maintain, stabilise and preserve organisational momentum and institutionality. In legal terms, the right to mobilise and strike beyond the company level is extremely limited, even within one company multiple unions often operate in direct competition with each other and workers are barred from making petitions related to how the company is being run due to Labour Code legislation stemming from the Pinochet era. The dominance of neoliberal market-orientated ideologies means that in many instances, workers are encouraged by pro-business actors to view legislation aimed at environmental protection as a direct threat to employment and have, on occasion, particularly in extractive sectors, mobilised to prevent its imposition.

The combined effect of these constraints influences popular understandings of what unions are and do and so there is no pressure from below for them to engage in debates about climate changes policies as workers view union action in instrumental terms.

Finally, the combined effect of these limitations influences the popular understanding of what trade unions are and do, so there is no pressure from below, to participate in coalition in debates on climate change policies, nor the formation of significant alliances with stakeholders negatively affected by these industries. Workers tend to understand union action in instrumental terms, as there is no institutional support for their participation as decision-makers in climate policy making processes. In Chile, labour activity is concentrated in company-level unions where there is limited institutionality which could create the capacity for public advocacy. Thus, it is mainly community-based organisations that engage in activities designed to pressure for action to mitigate climate change.

Within the Chilian labour movement, the main union actor involved in debates about climate policy at the national level is the nationally representative body, Central Unitaria de Trabajadores de Chile (CUT). CUT has strong historic links with various left-wing parties including the Communist Party which is part of the current government coalition. However, the CUT's participation is limited, as it only has a consultative role and is poorly represented in comparison to environmental organisations. In the opinion of CUT actors, the government relies too heavily on NGO input in the development of its environmental policy.

Due to the lack of formal dialogue mechanisms, CUT tries to influence the debate via information provision, i.e. the publication of position papers and formal and informal contributions to policy making panels and committees such those involved in the drafting of the Climate Change Law or the Just Socio-Ecological Transition Strategy (*Estrategia Nacional de Transición Socioecológica Justa:* ENTSEJ in its Spanish acronym).

Company level unions are generally excluded from policy making fora, even when the issues under discussion directly affect their members. For example, the Just Socio-Ecological Transition Strategy includes within its broad remit, the project to phase out the coal fired power sector, thus notions of what Just Transition means in this context are extremely relevant to the coal fired power station workers. Despite this there were no direct contributions from labour organisations representing workers in the coal fired power sector in the panel of experts developing the strategy. The only exception to this tendency to exclude company level unions from policy making forums (amongst the sectors considered in this report) is within the copper sector, which has achieved a much broader and more significant participation.

Trade unionism in the copper industry has a higher level of labour institutionalisation, organisation and strategic influence than other sectors due to its contribution to GDP. Whilst climate change is currently considered a fairly low priority issue by workers in the copper sector, the influence held by unions representing workers in this sector means that the government is likely to engage in discussions with labour actors about policies affecting the sector if the issue rises up the agenda.

Labour perspectives on decarbonisation and Just Transition

Our research reveals that there are significant differences and overlaps exist between the stakeholders within the Just Transition space, including government representatives, ENGO actors and CUT representatives, rank-and-file unionists and workers. In terms of how Just Transition is conceptualised, ENGOs tend to emphasise the need for a wholesale transformation of the Chilean economy with a particular focus on reducing extractive practices, ameliorating the environmental health and livelihood loss issues which often to cluster around the highly polluted 'sacrifice zones' and sites of raw material extraction. From this perspective Just Transition means the immediate closure of polluting industries. These concerns are broadly reflected in government policy and have led to the introduction of an officially promoted notion of 'Just Socio-Ecological Transition', a concept in which retraining or "labour reconversion" for workers affected by environmental policies is only a very small part of a much wider agenda for deep, transformative, pro-socio-environmental change.

Although, in general, CUT agents agree with the necessary changes, they feel that government action and rhetoric around the concept does not prioritise the interests of workers. CUT actors are therefore concerned that ENGO/government low degree of interest in the long-term implications of industrial closures on workers' career trajectories, incomes, and wellbeing means that there are insufficient funds and policies available to directly address this issue. These concerns are particularly acute given the close relationship that ENGOs enjoy with the current government compared to organised labour.

Although CUT is by far the most prominent organisation involved in national debates about climate policies, CUT's relationship with most company level unions is weak, and it is not perceived by them to be adequately representing their interests. Some trade unionists even distrust and prefer not to collaborate with the organisation. Just Transition actions and perspectives from coal fired power unions and the workers they represent were drawn from their direct experience of the closure of coal-fired power stations. Their perspectives were orientated around the need for policies which would ensure that the impact the closures had on their incomes and benefits packages was minimised as far as possible.

The corporatist orientation of these unions also means that there has been limited engagement with the broader socio-environmental issues in sacrifice zones from union leadership. In their view, the just transition has been marked by the powerlessness of the workers, as they have no other employment or income alternatives. Whilst climate change and the need for coal fired power phase out were not directly

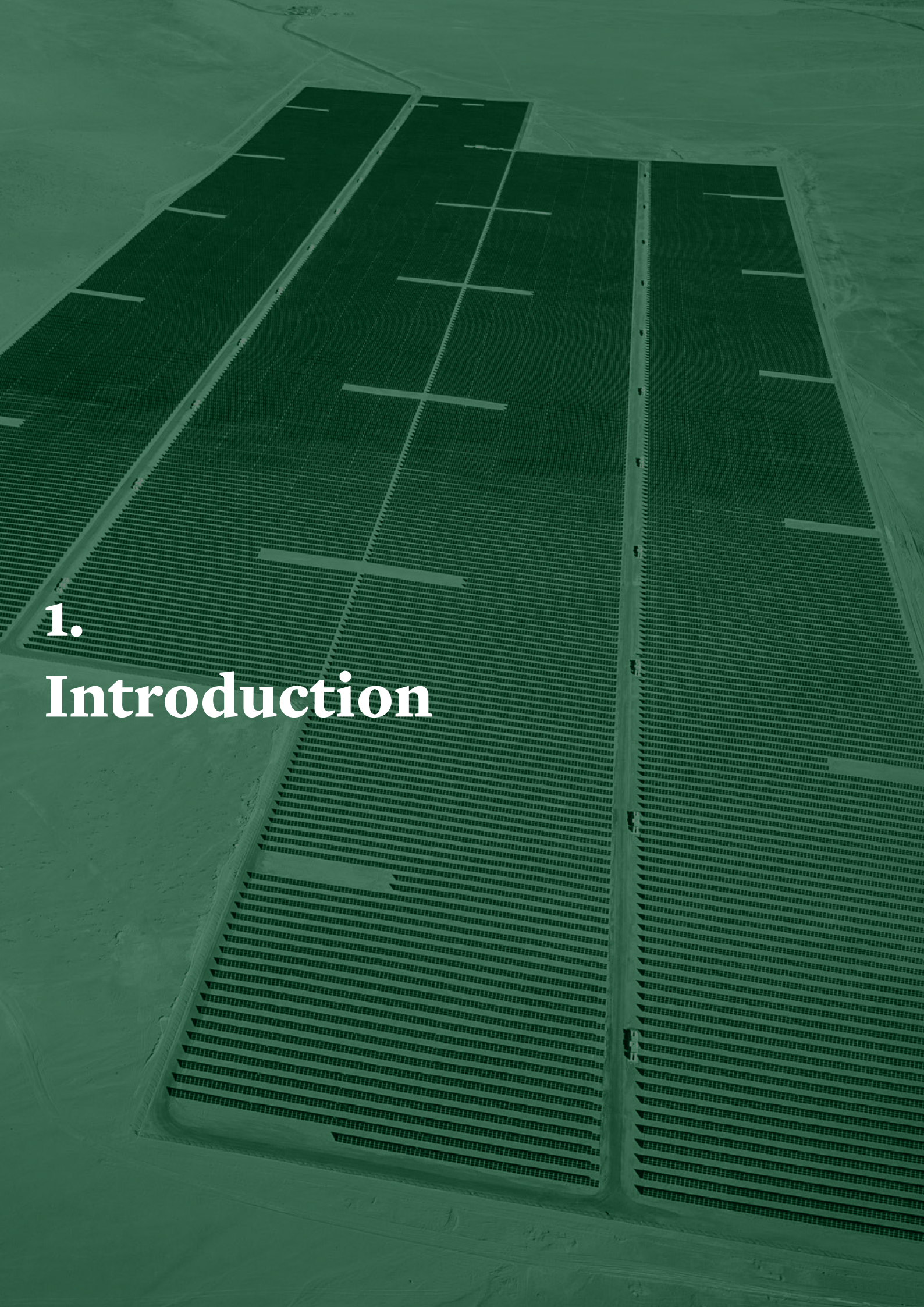
contested, many workers were unhappy about the pace of change, and in particular the acceleration of the coal fired power phase out under the Boric administration. Despite the government's high-profile commitments to dialogue, these efforts are largely perceived to be rhetorical and intended to improve the image of the country globally, rather than a genuine attempt at democracy and worker involvement in the transition agenda.

Trade union actors also consider that the Just Transition and the green transition in general are being hijacked by the Chilean business lobby, which is very well organised and well resourced. There is a perception that companies are using sustainability issues as a 'cover' (facade) for actions that will, first and foremost, increase their profit margins, often at the expense of workers, especially given that mining workers are the sector with the highest unionisation rate in the country (46.7%) with energy as the fourth highest (27.4%).

The mechanisms through which increased profit extraction was perceived by unionists to be operating were: 1) the intensification of work; 2) the ability of companies to avoid responsibility for remediation through early closure; 3) the issuance of new contracts less beneficial to workers transitioning to renewable energy (even when working in the same companies or the same sector); 4) the implementation of low-emission autonomous (electric) operating technologies that reduce the wage bill; 5) the reduction of taxes paid to the government; and 7) reducing union density in one of the most organised sectors of the economy (as is the case in mining and energy).

It should be noted that the speed of the transition is considered by unionists to be driven by external agents, such as European countries, which depend on new technologies (e.g., electric or hydrogen power transport and industry) for their decarbonisation objectives. The perception is that companies in these countries will be the ones to benefit from the ecological transition, such as electric car manufacturers. Thus, the ecological transition is perceived as an extension of historic colonial relations, as the environmental burdens of capitalism are borne by developing countries on the margins of the global economy that supply the raw materials for continued affluent Western lifestyles.

In response to these ongoing challenges, organised labour, and in particular CUT Chile, has tried to develop policy suggestions which balance specifically Chilean concerns around high levels of environmental damage resulting from heavy industry with the potential impacts of decarbonisation policies on workers. CUT highlights the importance of a green transition which delivers tangible improvements to marginalised communities, such as a reduction in energy bills or improvements in environmental health. They argue that unless there is a push to hold companies accountable via far higher carbon taxes and taxes on other forms of damaging pollution such as nitrous and sulphurous compounds and particulate matter, polluted communities will be unable to implement the remediation programmes necessary for alternative livelihoods to develop in places where pollutive industries are closing down. They further argue for public investment in the retraining programmes needed by workers, rather than relying on companies to provide the training that workers will need to secure jobs in new industries. This more social unionism can be contrasted with the corporate orientation of coal fired power unionists, where Just Transition demands are focused on the labour market support policies needed to ensure that minimal harm occurs to coalfired power workers as a result of the transition.



1. Introduction

Chile is trying to position itself as a climate leader within Latin America. In 2020, under the leadership of a right-wing government, the country announced ambitious Nationally Determined Contributions (NDCs) focused on phasing out coal fired power by 2040, a commitment to net zero emissions by 2050 and a top down Just Transition programme.

The Just Transition programme was initiated under the right-wing Sebastián Piñera government, it included a series of participatory workshop events and a Just Energy Transition Strategy document. The Just Transition agenda was then taken forward and adapted by the incoming left-wing government led by Gabriel Boric. This saw Just Transition adapted into the Just Socio-Ecological Transition, a broader agenda for transformative progressive change focused on addressing environmental health and pollution issues in areas where coal power stations are co-located with other forms of heavy industry.

Chile's intention to focus its emissions reductions strategies on the phase out of coal fired power, intends to allow the country to exploit the comparative advantage in renewable energy generation offered by its geography and, until recently, a stable neoliberal policy consensus. Chile has fully privatised energy assets, low levels of regulation and has offered state support for foreign investors hoping to enter the energy market, allowing high returns on investments (Flores-Fernández, 2020; Furnaro, 2020; Kingsbury, 2022). However, although the country has had predominantly left-leaning governments since the end of the military dictatorship in 1990, the constitution and key pieces of neoliberal legislation such as the Labour and Water Codes enacted by Pinochet remain in place.

The right-wing remains a powerful political force in Chile. Business interests in particular have been able muster significant structural and instrumental power to block potential political reforms such as the threat capital flight could destabilise a new fragile democracy and the colonisation of policy making positions and key institutions by pro-neoliberal actors (Madariaga, 2020; Pérez Ahumada, 2023) This means that business and elite interests are able to influence the shape of climate policies and the labour-related legislation that supports them to the detriment of workers and ordinary Chilean citizens.

However, in 2018 the country experienced a significant period of social unrest, in which the neoliberal hegemony was actively contested. Although initially triggered by a rise in metro fares, frustrations with privatisation of health, water, and pensions, the high cost of energy and education and generalised lack of corporate accountability also become frustrations within the ensuing mobilisations. Newly energised progressive social movements aimed to address these deep seated socio-economic vulnerabilities via constitutional change. Whilst ultimately not successful, in part due to a well-resourced right-wing campaign of misinformation, these events have nevertheless fed into ongoing discussions about the meaning of Just Transition.

In this report we explore the relationship(s) between labour and environmental policy making in Chile in order to understand labour perspectives on and involvement in Just Transition policy development in Chile. We draw on a series of 31 expert interviews with trade union representatives (n=18), NGOs (n=4), government actors (n=3), coalfired power station workers (n=5) and academics (n=1). The trade union interviews included actors from Central Unitaria de Trabajadores de Chile (CUT), which is the national trade union organisation in Chile, as well as international union organisations, sectoral federations and confederations and company level unions in sectors deemed to have a (potential) interest in environmental policy making, namely extractive, energy production and transport sectors. All the workers interviewed were from the coal fired power generation sector. Just Transition-related policy documents produced by labour and state actors between 2019 and 2025 were also analysed, including documents revealing behind the scenes negotiations around the meaning and implications of Chile's central government driven Just Transition project. We consider both labour agency and opportunities to create change as well as the contextual constraints within which labour is operating and tensions between different stakeholders involved in Just Transition policy development.

The structure of the report is as follows.

In Chapter One, we present the field of climate policy making in Chile. This section includes a brief outline of the features of the Chilean economy, the history of environmental policy making in the country and discussion of recent political upheavals including the push for a new constitution between 2019 and 2023.

In Chapter Two, we consider labour's role in environmental policymaking in Chile via discussion of the specifics of constraints on the Chilean labour movement, including how the legacy of Pinochet influences union culture as well as directly excluding labour actors from participating in debates about policy.

In Chapter Three we discuss how labour is positioning itself within debates about the Just Transition. We present the relationships between labour actors and environmental NGOs (ENGOs) and their differing perspectives on the Just Transition. We then consider the threat posed by corporate co-option of sustainability initiatives for profit-driven agendas, and conversely how labour actors would like to see the Just Transition concept operationalised.

In Chapter Four we look at incipient Just Transition and/or sustainability initiatives in action in three different sectors of the economy: coal fired power, lithium production and public transport. In the coal fired power sector, workers feel let down by government promises, in lithium the decision to expand and partly nationalise the sector creates competing priorities but has the potential to benefit workers in the long run and in the Santiago subway there is evidence of a small-scale win for workers affected by the supposedly sustainability-driven greening of the urban public transport system.

In the concluding chapter we draw together these insights to create a summary of what is unique about labour engagement with Just Transition in Chile.

2. Field of climate policy making

2.1 Features of the Chilean economy

When Augusto Pinochet and the military seized power from the elected socialist government of Salvador Allende and established a military dictatorship in 1973 in a violent US back coup, it went on to enact structural reforms based on neoliberal economic ideas derived from a group of American economists known as the 'Chicago Boys'. These policies aimed at reducing state intervention in economic policy and increasing the role of the private sector in the provision of public services. Pinochet also violently repressed left-wing activists and organisations who had contributed to Allende's rise to power (Durán-Palma et al., 2005; BBC News, 2011). The ability of unions to organise was severely curbed due to a raft of anti-union legislation, which to this day makes it difficult for unions to organise to combat increasing levels of inequality (Duran and Galvez, 2016).

Unionisation levels in Chile remain low: In recent years they have hovered around 17 percent. Highly organised sectors include mining, energy, and port logistics whereas unorganised sectors are those such as the public sector, wholesale and retail trade (Fox-Hodess, 2019; Pérez Ahumada and Ocampo, 2023). The weakness of the labour movement further contributes to the high levels of labour precarity in a highly deregulated labour market, including informal work, self-employment, outsourcing, short term contacts, subcontracting, wage insufficiency and underemployment (Julián-Vejar, 2018). Almost half of those working in the mining sector and over a third of those in healthcare and education are subcontracted workers, which means they struggle to access basic rights such as healthcare, sick pay, and pensions during retirement (Fundacion Sol, 2018). Over a quarter of all workers are in informal employment (ILO, 2025). Although Chile is the wealthiest country in Latin America, it is also the most economically unequal country in the OECD (OECD and United Nations, 2018).

After the coup, Pinochet implemented radical deregulation by passing a new constitution, which included provisions to prevent policy reversals (Madariaga, 2020). This new constitution also pivoted the economy away from nascent efforts to industrialise via import substitution, towards an extractivist model based on the production of predominantly raw materials from mining, agri/aquiculture and forestry industries (OECD and United Nations, 2018; Leiva, 2019). As a result, Chile's economy is highly dependent on the extraction of natural resources and mining mineral exploitation. Mining accounts for 13% of GDP and 55% of exports, 50% of which comes from copper alone. It also leads production of iodine, rhenium and lithium, producing 65%, 50% and 39% of global production respectively (OECD and United Nations, 2018). In Chile 72% of mines are privately owned with the remaining 28% owned and operated by the state owned company CODELCO (International Trade Administration, 2022). CODELCO (Corporación Nacional del Cobre de Chile) is the largest producer of copper in the world, accounting for over one third of total production. Agriculture and the agri-food industry account for 8% of GDP and 20% of exports. In both industries exports are dominated by relatively unprocessed products with lower levels of added value than is the case for many OECD countries (OECD and United Nations 2018). China is a key destination for exports and has been the country's largest trading partner since 2010. A free trade agreement between the two countries has been in place since 2006 (Asia Regional Integration Center, 2024). Chile is a highly open economy and in total the country has signed

31 free trade agreements with 65 different countries (Bustamante, 2022).

When an excessive focus on the export of largely unprocessed raw materials leads to a fragile and undiversified economy, this structural model can be labelled extractivism. In recent years this model of development has morphed into something called neo-extractivism (Svampa, 2019a). In neo-extractivism, like under extractivism, the goods produced tend to be exported, but with neo-extractivism the scale and number of extraction sites, and the types of activities involved increases (e.g. soya, salmon and palm oil production), pushing extractive activities into new areas (often termed the expansion of the commodity frontier). The increasing scope and scale of extractive activities due to increases in the social metabolism (i.e. the flow of energy and resources required to sustain the global economy) necessitates new infrastructures. The high returns possible from mining when commodity prices are high does not encourage innovation, which would aid economic diversification and stability when commodity prices inevitably fall (Moore, 2011; Svampa, 2019b).

The extractivist model sets in motion a series of environmental and social consequences for communities, especially for indigenous peoples, associated with the way territory is occupied, exploited, and remodelled according to the needs of accumulation (Alister et al., 2021). This leads to conflicts which can outlast the extraction projects themselves (Delamaza et al., 2017; Svampa, 2019b; Carranza et al., 2020; Schmalz et al., 2022; Balderson, 2023). An awareness of the pitfalls of this mode of development is prevalent within Chilean civil society, and so, despite being a seemingly academic concept it emerged organically in numerous interviews conducted for this study.

Politically, Chile returned to democracy in 1990, but institutionally, the economic model and constitution put in place under Pinochet remains in force. Since then, the political climate in Chile has been relatively stable, with power held primarily by centre and centre-left political parties. The only exceptions to this were between 2010-2014 and 2018-2022, when a right-wing political party held power. Nevertheless, capital and the right-wing business lobby remain a powerful force shaping policy, and changes to the extractive focus on the economy which would allow the development of a more balanced economy have, until recently, not been part of any government agenda. Rather, both left and right-wing parties have supported the continuation of orthodox neoliberal policies which are embedded into the constitution via the prioritisation of private property rights over natural resource protection and a technocratic market based approach which depoliticises social problems and leaves the extractive model of economic growth unchallenged and in place (Leiva, 2019; Flores-Fernández, 2020; Berasaluce et al., 2021).

Chile has five heavily industrialised areas established in the 1950s, which host extraction, refining, energy generation and petrochemical production. These areas are known as "sacrifice zones" because they are dominated by poorly regulated heavy industry, and as a result local populations suffer from the severe environmental health consequences of living downwind and downstream of highly polluting activities (Valenzuela-Fuentes et al., 2021; Gayo et al., 2022). In Chile there are a large number of conflicts in which the communities affected seek environmental justice, often via litigation in the courts (Torres-Salinas et al., 2016; Valenzuela-Fuentes et al., 2021; Schmalz et al., 2022; Akchurin, 2023). The Observatory of Mining Conflicts in Latin America (OCMAL)

reported 49 active conflicts relating to mining activity alone in 2024 (OCMAL, 2024).

The country is considered to be highly vulnerable to climate change (World Bank Group, 2021) and is already seeing temperature rises of 1.5-2 degrees above the historical average in its northern Andean areas. Predictions indicate the likelihood of lower rainfall levels between 2031 and 2050, with this drier climate especially affecting the Atacama and Los Lagos regions. These areas are the most productive agriculturally and have the highest population densities. 25% of the drought experienced since 2009 is linked to climate change and further glacial retreat is predicted to worsen this situation (Gobierno de Chile, 2020a; Yan, 2021)

2.2 The development of Chile's energy and environmental policies

2.2.1 The evolution of energy generation in Chile

Chile began planning the decarbonisation of its energy generation mix as early as 2014 (Ministerio de Energia, 2014). Although hydropower had initially been its primary source of energy generation, supplying 70-80 percent of installed capacity during the 1980s, the importance of the power source decreased as energy demand rose, inconsistent weather disrupted supply and further expansion became controversial, leading to opposition from affected communities (Nasirov et al., 2018; Serra, 2022). Instead, the country moved into gas fired production, with gas imports primarily coming from Argentina until the country entered a period of crisis which caused supplies to become unreliable. In 2004 Argentina supplied 26 percent of the country's energy consumption, but when it faced domestic shortages exports to Chile were limited, leading to blackouts in 2005. Within 2 years gas supply into the country had collapsed almost completely (Nasirov and Silva, 2014; Nasirov et al., 2018; Hauser et al., 2021). In response to this, Chile converted gas power stations to run on diesel, despite high costs, and the coal fired power sector was scaled up, with the coal coming primarily from Colombia, Indonesia and Australia, as Chile's own coal production has been negligible since a sharp (unmanaged) decline in the 1990s (Nasirov and Silva, 2014; Hauser et al., 2021).

However, as a result of the disruptions caused by recurrent energy crises legislation to promote renewable energy began to be enacted as early as 2004 and 2005, facilitated by ENGO collaborations with politicians and reframing of environmental issues in a way which appealed to a wider variety of actors (Madariaga and Allain, 2020). From 2014 the Chilian government began to actively develop energy policies orientated towards decarbonisation, such as a series of measures designed to stimulate investment in newer forms of renewable energy such as wind and solar technologies (Simsek et al., 2020; Serra, 2022). The country is well suited to renewable energy production, as the Atacama Desert has uniquely high solar radiation levels, the 6000km of coastline picks up a lot of wind and there are 123 active volcanoes. Enhanced renewable generation is also popular as it is likely to increase the country's self-reliance and resilience in the face of external shocks (Flores-Fernández, 2020). In addition to this, emissions reductions have been achieved via efficiency improvements in building and industrial energy usage. Between 2017 and 2019 greenhouse gas emissions fell by 19 percent, with 64 percent of the efficiency gains coming from buildings, 36 percent from industry and 18 percent from transport (Hauser et al., 2021).

Key Chilean energy policy documents include

the Energy Agenda 2050 and then the Road Map 2050 for sustainable and inclusive energy supply, which introduced targets for renewable energy generation and called for greater state involvement in the energy sector (Ministerio de Energia, 2014; 2015). This period also saw Socialist Party President Michelle Bachelet (2014-2018) offer concessions on infrastructure projects via Public-Private Partnerships leading to a number of large-scale investment projects primarily directed towards solar but also targeting wind energy production, with contracts awarded to supply energy to the Chilian markets (Munguia, 2016).

The Chilean energy system is centralised and highly privatised (Flores-Fernández, 2020; Furnaro, 2020). Its economy is dominated by large firms, and this holds true for the energy sector including renewables (OECD and United Nations, 2018; Lammey, 2018). As such, the Bachelet government also instigated reforms aimed at breaking the oligopolistic corporate power of the main energy generation companies. However, these measures were not successful, and generation continues to be dominated by 5 large companies: AES Andes, ENEl, Colbún, EDF and Engie who in 2020 together supplied 90 percent of the energy generated via a mix of fossil and renewable power sources (Generadoras de Chile, 2021). Current installed capacity is 53 percent renewables, of which 18 percent is solar photovoltaic, 10 percent is wind and most of the rest is hydropower. The remaining 47 percent is accounted for by coal (18%), natural gas (18%) and oil-based (11%) thermal power plants (Biblioteca del Congreso Nacional de Chile, 2021).

2.2.2 Chile's NDCs and the phase out of coal fired power

Chile submitted its first Nationally Determined Contributions (NDCs) in 2015, aiming to reduce emission intensity of GDP growth by 30 percent until 2030 (Gobierno de Chile, 2020b). This means that although both emissions and GDP would still be growing, emissions would do so at a relatively slower rate than GDP. In 2020 the county shifted from defining commitments as a reduction in the emissions intensity of GDP (i.e., decoupling) to the goal of reducing absolute emissions by 95MtCO2eq by 2030 and passing maximum national emissions by 2025. The overall emissions budget for the period 2020-2030 has been set at 1100MtCO2eq, and the country also committed to achieving net zero emissions by 2050 (Gobierno de Chile, 2020a). In the run up to the formalisation of these NDC commitments the right-wing Piñera-led government negotiated an agreement to phase out coal fired power stations in 2019. The agreement was signed by the Ministry of Energy and the energy companies who would be affected. The phase out of coal fired power

53%

Energy generation from renewables

18% is solar photovoltaic, 10% is wind and most of the rest is hydropower.

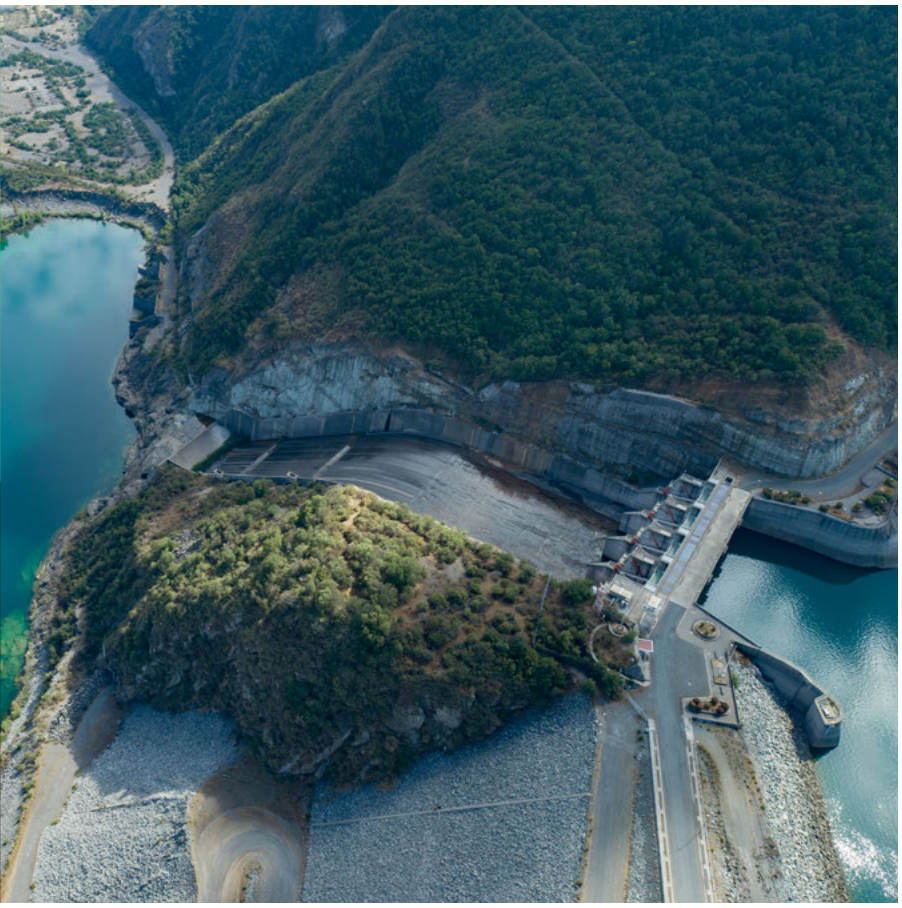
47%

Energy generation from fossil fuels

18% is coal, 18% comes from natural gas, and 11% oil-based thermal power plants.

is the flagship energy policy intended to deliver the NDC commitments.

The country aims to produce 70% of its energy from renewable sources by 2030. The plan for carbon neutrality by 2050 will require the substitution of 5,400MW of coal produced energy with energy from green sources (Ministerio de Energia, 2020a). It's carbon neutrality by 2050 target also relies on significant reduction in energy demand across a variety of sectors plus the capture of 65MtCO2e by forests (Ministerio de Energia, 2020a). As part of its NDCs Chile has also committed to creating new marine protected areas (including implementing management plans), protecting coastal wetlands, creating a national inventory of peatlands, and sustainable management and recovery of 200,000 hectares of mostly native forest, as well as afforesting a further 200,000 hectares, of which at least 100,000 hectares will be permanent forest cover with at least 70,000 hectares of this native species (Gobierno de Chile, 2020b).



Chile's commitment to climate action is deemed "almost sufficient" when compared to its fair-share contribution as it would put the world on track to warming of less than 2 degrees. Its rating was recently improved from "insufficient" following action taken by Boric's government discussed in detail below (Climate Action Tracker, 2024).

Chile's plans for coal fired power phased out have been in development since 2017 when the Climate Action Plan 2017-2022 was adopted. This document strengthened emissions reductions standards and established mandatory efficiency measures for coal plants. In 2018, the Ministry of Energy developed a technical and interdisciplinary coal commission to evaluate the social, environmental and economic effects of the planned phase-out, for example safety and efficiency of the power system as well as the local economic impacts. The commission included input from government ministries, industry associations, academia, NGOs, municipalities and the German International cooperation agency (GIZ). GIZ provided scientific and technical expertise the use of solar in the north of Chile, the environmental and health consequences of Chilean power and the technical options for reconverting the plants. The findings were used to determine a schedule for coal phase out which theoretically took environmental, social and economic factors into account (Hauser et al., 2021).

In 2019 coal fired power stations accounted for 36% of energy generation and 25% of greenhouse gas emissions (Ministerio de Energia, 2020a) The aim is to close ten by the end of 2025 and the remaining 18 coal-

fired power stations by 2040. Many of these power stations were built relatively recently with only 7 of the 28 operating prior to 1990 (Inodú, 2018). The timeline for closures has been highly unstable, with new plants added to the initial list of immanent closures and then in some cases subsequently removed. The closure process accelerated significantly after the election of Boric in 2022. In 2021 as part of COP26 the country joined the Powering Past Coal Alliance which aims to speed up the coal phaseout by bringing together companies and organisations which are actively working on the issue (Gobierno de Chile, 2021).

Coal fired power stations are not evenly distributed across the country but rather are concentrated in specific highly industrialised areas. As noted above, Chile has 5 heavily industrialised areas, established in the 1950s, which host mineral refining activities, energy generation and petrochemical production. Coal fired power stations are concentrated in these "sacrifice zones" and as a result local populations suffer from the severe environmental health consequences of living downwind and downstream of highly polluting activities (Valenzuela-Fuentes et al., 2021; Gayo et al., 2022). Thus, as we will explore in detail in the sections that follow, climate change, energy policy, Just Transition, extractivism and sacrifice zones are closely entangled. In recognition of these complexities and the impact that closure of the coal fired power stations will have on certain local economies, Chile's NDCs have a pillar explicitly focused on Just Transition and Sustainable Development. The environment minister at the time described it as a 'social pillar that cuts across mitigation, adaptation and integration commitments, establishing a process for just transition as part of the decarbonisation plan' (Schmidt, 2020) .

2.2.3 Environmental policymaking under Boric

In 2021 Gabriel Boric campaigned for the Presidency on a pro-environmental, anti-extractivist platform and currently leads the most left-wing administration since the return to democracy. Since taking power in 2022 he has enacted a number of important pro-climate legislative changes. The Chilean government ratified the Escazu Agreement, the world's first binding provision on the protection of human rights defenders in environmental matters. This regional initiative hopes to address the high levels of attack seen against environmental defenders in Latin America and the Caribbean and to improve transparency mechanisms meaning such that it is easier for citizens to access environmental information. The agreement aims to better protect the rights of those who are engaged in environmental struggles in Latin America. It also aims to improve the visibility of people whose views have historically been marginalised or unrepresented within spaces where decisions are taken about the environment (CUT, 2022; Senado República de Chile, 2022; Biblioteca del Congreso Nacional, 2024).

The Climate Change law was also ratified in 2022. This law establishes powers and obligations at national, regional and local levels, obliging 17 separate ministries to take concrete actions to address climate change. It also establishes the Long Term Climate Strategy (LTCS), a roadmap detailing how the country will meet its commitments and requiring the development of sectoral mitigation and adaptation plans with concrete measures and actions to meet these goals. This law also mandates Strategic Water Resource Plans for the country's water basins and annual reports from the government on public climate investment, as well as declarations from financial institutions about the climate impacts

and risks of their private investment projects (Ministerio del Medio Ambiente, 2022). These actions indicate the Boric government's commitment to action on climate change and their desire to position Chile as an environmental leader within Latin America.

Boric has confirmed the commitment to the energy transition and the decarbonization of the country's energy matrix including the agreed closures of the coal fired power plants and the other NDC commitments made by the previous government regarding climate change. The 2022 Energy Agenda 2022-2026 was produced collaboratively with input from citizens who participated in workshops and round table discussions. This is part of a longer history of supposedly participatory energy policymaking which began in 1994 when the Environment Framework Law (Law 19.300) made public participation in policy making compulsory. However, these processes have been critiqued as tokenistic, and even when they are successful they throw up numerous complexities given the differing, potentially irreconcilable agendas of the actors involved (Ureta, 2017; Urquiza et al., 2018).

The cross-cutting principles of the agenda were defined as equitable access to quality energy, a clean energy matrix, secure and resilient energy development, just energy transition and sustainable infrastructure, energy decentralisation, citizen empowerment and democratisation of energy, innovation and inclusive economic growth and modernisation and public management (Ministerio de Energía, 2022, pp.25–26). Specific policies with relevance for decarbonisation include plans to improve the energy efficiency of 20,000 homes, improve energy efficiency building standards and develop a strategy for more widescale improvements to building stock, promote energy efficient appliances, and facilitate the injection of biogas or green hydrogen into the gas grid. There is also a proposal to reduce the use of wet firewood as an energy source, as this is causing high levels of air pollution. However, moving away from this energy source will create the need for a Just Transition in the forestry sector, as many poorer Chileans live off the sale of firewood to households (Ministerio de Energía, 2022).

Boric has also announced plans for the further development of "green industries" such as hydrogen and lithium. The Energy Agenda 2022-2026 presents the development of a green hydrogen industry as a key plank of the energy transition. These plans were also elaborated in the country's Green Hydrogen Strategy (Ministerio de Energia, 2020b). This document notes that as the country has the potential to produce an abundance of cheap renewable electricity it intends to use this cheap electricity to make green hydrogen at globally competitive rates. The hope is that a large-scale green hydrogen industry will be developed to replace or complement the country's mining sector. Development is envisaged as occurring in 3 waves. Firstly, domestic green hydrogen consumption is to be incentivised, using it to replace grey hydrogen as in input in oil refineries, substitute ammonia imports, and employing it as a transport fuel for heavy goods vehicles and long-distance transportation. Within a decade it is hoped that hydrogen will be exported, potentially as green ammonia, and hydrogen is to be used extensively for land transport and blended into gas grids nationally. In the longer-term, the plan is for a massive scale-up of production such that green hydrogen can replace fossil fuels in global shipping and aviation, hoping to turn the fuel into a key national export that could enable decarbonisation activities worldwide. The hope is that in the process 100,000 jobs will

be created and by 2030 the country will offer the lowest cost green hydrogen with 25GW of production capacity. The advantage of the strategy is that it will allow the country to move from the exploitation of non-renewable resources to the export of clean green renewable energy which aids global emission abatement (Ministerio de Energia, 2020b; Giz/ Ministerio de Energia, 2020). However, the siting of planned projects has the potential to be contentious with local communities (Aedo et al., 2023; Stephani and Castillo Jara, 2024).

Under Boric a new National Lithium Strategy has also been developed and is beginning to implemented. The legal status of lithium is an anomaly in Chile's mining concession system, as since 1979 it is decreed that lithium reserves are unconcessionable and thus reserved for the state. In 2023 Chile announced that its lithium strategy would involve the partial nationalisation of the industry. This lithium strategy was based on earlier work carried out by National Lithium Commission which took place during Michelle Bachelet's (2014-2018) government (Ministerio de Mineria, 2016). The main components of this strategy are the creation of a National Lithium Company, which will give the state improved access to the benefits of the upcoming lithium boom, the creation of a Public Lithium and Salt Flat Research Institute which will improve knowledge of the hydrogeology, physicochemical properties, flora and fauna in the area, as well as how the communities live, the local economy, a Protected Flats Network

with 30 percent of the country's salt flats protected completely from lithium exploitation and the creation of a Strategic Committee on Lithium and Salt Flats to oversee the implementation of the strategy. State involvement aims to help ensure environmental and social sustainability.

The aim is for the National Lithium Strategy to 'overcome the extractivist mentality promoting technological and supply chain development with local companies, as well as more sophisticated business activities that generate productive employment' (Gobierno de Chile, 2023, p.13). The hope is that government involvement will "soften" the impact the global lithium boom is having on the country's indigenous communities and the biosphere around the mine. Currently there is ongoing critique and conflict from indigenous communities and environmental organisations related to the negative impact that lithium exploitation is having on the area's water resources, biodiversity and social cohesion (Gundermann et al., 2018; Bustos-Gallardo et al., 2021; Jerez et al., 2021). However, the strategy has been critiqued for failing to sufficiently protect indigenous rights including the right to Free Prior and Informed Consent (FPIC) before mining concessions are agreed (Cultural Survival, 2023)

2.3 Labour power and the push for constitutional change

Union activity in Chile has been crippled since 1979 when the so-called Labour Plan was introduced by Pinochet. The Labour Plan severely limited collective bargaining and pivoted the country to an extreme version of labour flexibility, in which the employers controlled much more closely the terms of work. The Labour Plan restricted collective bargaining to the firm level and allowed employers to hire replacement workers during strikes. Despite various attempts at reforms since the return to democracy, firm-level bargaining restrictions remain in place to this day, as well as laws promoting competition between unions and the signing of semi regulated collective agreements. Although replacement of strikers is formally prohibited, employers can make 'necessary modifications' in non-strikers' shifts to ensure broadly defined minimum service (Durán-Palma et al., 2005; Narbona, 2015; Pérez Ahumada, 2021). Workers in companies deemed to be 'strategic' such as those providing public health, security or infrastructure services are banned from striking all together, with companies able to petition the government for inclusion in this list (Crocco, 2020).

Although the right to organise has been extended since the return to democracy, the incentives to unionise remain weak because collective bargaining has not been significantly strengthened (Durán-Palma et al., 2005). Wage setting remains extremely fragmented and is determined at the company level rather than via sectoral agreements. At the same time, bargaining groups which are not unions are permitted to intervene as negotiation groups with the company, making the work of established unions more difficult by dividing workers into ever smaller groups. These groups negotiate semi-regulated collective conventions (convenios collectives) rather than the more regulated and legally protected collective agreements (contractos colectivos). Unlike agreements the under conventions the right to strike is not protected, nor are leaders of the group who sign the agreement (Pérez Ahumada, 2023). Because of these limitations, establishing a new constitution has long been a priority for unions and they have published various policy and position papers advocating for changes which would allow greater

freedom to organise workers and for a fairer, less extractively orientated economic system to emerge.

In October 2019 Chile experienced its most significant period of social unrest since the return to democracy. Protests initially triggered by an increase in the price of metro fares quickly became about more complex social issues such as the rising cost of living and high levels of inequality. Although the President at the time, Sebastián Piñera, a right-wing billionaire from the Chile Vamos Party[1], offered to increase both the state pension and the minimum wage by 20 percent, this was felt to be too little too late and the protests continued to intensify, culminating in a general strike. October 25th saw close to a quarter of the population on the streets demanding social and economic change and chanting "Oh, Chile has woken up!". The state crackdown which followed the protests left at least 30 people dead and thousands more injured including more than 1400 people who suffered gunshot wounds. The UN accused the government of serious human rights violations including excessive use of antiriot shot guns and tear gas. The protests caused the country to pull out of hosting COP25 due to fear of violence (Bartlett and Miller, 2019; BBC News, 2019b; BBC News, 2020).

Trade unions, especially CUT, contributed in a limited way to generating and intensifying these protests. Union activity took the form of denunciation of the government, encouraging people and members to gather to protest, and promoting coordination with other movements. The protests were led by other parts of civil society including feminist groups and young people. CUT's limited involvement can be considered a residue of an organizational tradition in which the leaders have not managed to actively involve their members in campaigns, struggles and demands that are more socio-political than properly economic and union-related (Julián-Vejar et al., 2022). The country's dockworkers played a more prominent role, taking the initiative of stopping work in nearly all the country's ports and proposing a general strike. They were then joined by CUT and in conjunction with 20 other groups helped organise two days of national strikes on the 23rd and 24th October (Fox-Hodess, 2019; BBC News, 2019a) .

As part of their efforts to quell the protest the government and some parties of the opposition reached an agreement (15th November) to hold a referendum to decide whether and how a new constitution should be drafted to replace the 1980 Pinochet Constitution. The referendum was held one year later and resulted in a 78 percent vote in favour of drafting a new constitution. The new constitution was drafted by a democratically elected assembly, including scientists, teachers, students and Indigenous representatives, including a 50:50 gender split (Mega, 2022; Hiner, 2022).

The constitutional change proposed and (weakly) endorsed by the new President would have transformed Chile into a plurinational state, established autonomous Indigenous territories and gender parity as well as the right to free education, health care and housing

1 In Chile, as in many Latin American countries, the political party system is quite fluid and new parties are formed and dissolved regularly as interests coalesce or divide. An example of this is that Sebastián Piñera has held the Presidency twice, first as a candidate for National Renewal however he stood for Chile Vamos the second time round. Chile Vamos was created in 2015 as a coalition of centre right to ring-wing political parties including National Renewal (La Tercera, 2015).

(Almonacid Z et al., 2022). Environmental protections would also have been significantly improved as it also strengthened the state's duty to prevent climate change and address the biodiversity crisis. It also would have granted rights to nature, which would have allowed for lawsuits against companies engaging in pollutive activities (Mega, 2022). Article 47 of the constitution would also have ushered in sectoral level bargaining (Gutiérrez et al., 2021) potentially handing unions far more power and ability to effect change in both working conditions and climate policy.

However, following a campaign of right wing misinformation which claimed constitutional reform would mean the loss of private property and pension rights and divide the country along ethnic lines, when the draft was presented the country rejected it, with 62% voting against the new constitution (BBC, 2022; Hiner, 2022). After the defeat of the new constitution endorsed by Boric, a second convention was formed led by the hard-right faction within government. This constitutional draft was also rejected by voters, with 56 percent voting against it in December 2023 (BBC, 2023).

3. Labour agency/ constraint in environmental policymaking

3.1 Union depoliticization and (dis) engagement with climate change?

Labour's engagement on climate issues across most of the interviews and sectors considered here was low. This is partly because, outside of CUT, the issue was not really taken seriously as a threat by workers yet: "They think that all this is a fashionable topic, that it is more propaganda" commented a representative from CUT. It was felt by the CUT that in order to drive union action on climate change a "sensitisation campaign" was needed to engage people on the topic and shift cultural understanding and norms such that action would be better received or better still demanded: "Why hasn't there been a policy of, let's say, cultural preparation, be it cultural, educational, etc.?" he continued [CUT representative 1]. The need for union action on climate change to begin with workplace-level education campaigns was repeatedly stressed by interviewees.

Although, inevitably coal fired power unionists and workers were aware of the implications of climate change due to the impact that emissions reductions policies were having on their workplaces (discussed in more detail section 4.51) beyond this and outside of CUT labour engagement with was limited. As outlined above the Chilean Labour Code legally constrains what actions can be taken by workers. As a result of this interviewees described a process of depoliticisation of workers such that over time the constraints become reflected in worker understandings of what union purpose. As one interviewee noted:

> "There is a loss of politicisation of trade unionism, absence of class solidarity, absence of historical perspective to address the concrete problems that exist in the workplaces. In short, what is called in generic or general terms: depoliticisation. Depoliticisation of the world of work or of the narrative that trade unions construct on the basis of their concrete problems."
> *CUT representative 2*

Thus, workers have come to expect low levels of engagement from their leaders on issues beyond negotiating pay rises and improvements to company level contracts as it falls outside their conceptualisation of what unions are and what they should do.

Further, it was felt that the progress that had been made around public understanding and acceptance of climate change was vulnerable to attacks from the right-wing business lobby. During 2023, when the second constitutional reform proposal was drawn up, this process was led by right and far right politicians. The changes they proposed, as well as further liberalising Chile's economy and society, would potentially have blocked action on climate change (CIPER Chile, 2023). As one interviewee explained: "they removed from the preliminary constitutional draft prepared by the Committee of Experts [...] the recognition that there is climate change" [Transport sector representative]. As the political right remains a very powerful political force in Chile, there is a strong possibility that the country will move backwards rather than forwards in terms of climate policy-making in coming years. That right-wing politicians are able to consider such a step without a public outcry indicates the low levels of awareness of the issue in the general population.

The only exceptions encountered to the narrative presented above were limited and seemingly disconnected actions or comments. For example, a document hosted on the website of the Federación de Sindicatos de Supervisores Rol A y Profesionales de Codelco Chile (FESUC) titled 'The role of copper and

lithium in transforming Chile into a leader of green mining. Is it possible to transition towards sustainable mining?' (own translation) suggested that the level of tax revenue generated by the mining sector was currently insufficient to meet the country's 'urgent social demands' and thus a higher tax rate was necessary for 'social demands, green industrialisation, social and environmental compensation for regions, science and technology and reconversion and training for employment (Just Transition)'.

The document notes that the sector increasingly exports copper without smelting or refining it, leading to much higher carbon emissions than if processing took place in the country of extraction. The direct and indirect emissions of the sector together stand at 18 percent of the country's total, which according to the report does not include the emissions associated with 1200 trips to deliver unrefined copper to Asia. Only around one third of unprocessed concentrate is copper, these emissions could be reduced by two-thirds if refining capacity was developed in Chile (Calderón Galaz, 2021).

This approach links the issues of climate change, extractivism and the need to find new work opportunities for those displaced by climate change policies. However, the issue is complicated by the socio-environmental health problems in 'sacrifice zones' where local communities are pressuring the government to shut down such highly polluting forms of industry. In 2022 the government moved to close down the Ventanas industrial complex, a large copper smelter owned and operated by the country's state owned copper company CODELCO in the Quintero-Puchuncavi area (Cambero, 2022).

Representatives of lithium workers recognised the incongruence that exists between mining and sustainability because as well as involving the exploitation of a non-renewable resource, mining activities are highly energy intensive and thus large volumes of oil are currently burnt in the extraction of metals and minerals. For one of our interviewees this drew the supposed sustainability of the sector into question:

> "We burn oil to exploit this resource, which is a resource that supposedly they want to move away from because of the climate change, saying that we are changing it to clean energies, in this case lithium, which is an energy that is going to be in the future, in 50 years or less, they predict a boom. But we use oil to exploit lithium, because everything that moves inside the plant in the Salar de Atacama is oil based. And we as a union have made this known to the company that a transnational company has the resources, and we continue to exploit the lithium issue in an archaic way. It's complicated, because it's generating a clean resource, but it's based on a resource that burns oil."
> *Representative of a lithium workers union*

This was one of the few examples we encountered of workers directly petitioning for company level improvements in sustainability. However, the speaker did not perceive that it had much power to influence policy, noting that although they had petitioned for the use of electric vehicles as well as the production of renewable energy onsite, the changes which had been made were more related to the desire of the mine to comply with international legislation standards for responsible mining. Requests from IRMA (The Initiative for Responsible Mining Assurance), which requires certified companies to reduce greenhouse gas emissions as much as possible (IRMA, 2018), seem to have been more important than pressure from the union. Further,

the development of solar installations is sometimes resisted by local communities who rely on landscape or nature-based tourism and thus feel that such developments are likely to impact their revenues.

3.2 Constraints on labour agency in Chile

3.2.1 Atomisation

As outlined above union activities are highly constrained in Chile, as a result their opportunities to shape climate policy are limited. The long-term effects the labour Code and repression during the Pinochet years mean that: 'the tendency was towards union fractioning, [...] a lot of unions coexisting' [Transport sector representative]. There are a total of 11,400 active trade unions in the country of which more than half have 40 members or less (Duran and Galvez, 2016).

Although some unions join together to form federations, federated workers are a minority and those that have access to a national confederation are rarer still (Palacios-Valladares, 2010; Gutiérrez et al., 2021). In the words of one interviewee, even in their associated forms unions have very little power and 'have almost (only) an advisory role' [NGO representative] as they are unable to bargain or strike collectively across different companies.

3.2.2 Churn

In 82% of Chilean companies with 10 or more employees, there has never been a trade union, and in 90% of companies, no trade union currently exists. Unions are often ephemeral:

in 2016, 41% had existed for less than 5 years, and between 2015 and 2016, 65% of the unions formed in 2014 disappeared (Duran and Galvez, 2016). This impermanence is related to the high levels of subcontracted and precarious labour within the country which makes generating and sustaining momentum within union campaigns extremely difficult, as a representative from a subcontracted copper federation explained:

> "To create an organisation and for this organisation to be 16 years old is already a feat, because if we are a product of the subcontract, you know that a contract ends with company X, the workers change their jackets and go to X2, X3 or X4 and that means going back again, getting up, generating organisation again, doing it all over again. So, the truth is that the challenges in this and in this world of subcontracting are much more complex."
> *Representative from Confederation of Copper Workers [CTC] a confederation for subcontracted copper workers.*

Nevertheless, as the quote reveals there have been some successes, and the CTC has now been in operation for many years. An examination of the CTC's formation process highlights how its dramatic emergence was driven by access to organisational resources in addition to grievances around poor working conditions. The subsequent desire of workers to improve their livelihoods was related to the changing economic context in which mineral prices were rising. What organisational capacity existed were relics of a strong leftist tradition in Chile which helped activists maintain momentum and continue organising despite facing an initially depoliticised workforce. Organising was most successful when it connected the need for improved wages and conditions to larger political struggles, which enhanced solidarity. Activists were supported by the Communist Party and acted to gain community and civil society support and shared resistance strategies between generations of activists (Manky, 2018). Since then, struggles against subcontracted working practices have spread to other sectors of the economy, in particular, those involving the extraction of natural resources such as forestry (Torres et al., 2015)

3.2.3 'Company unions'

As unions are tied closely to specific companies, not all unions operate entirely independently of company interests. In some sectors, so-called "company unions" (bargaining groups) exist, and these often support company positions during moments of conflict. As a representative from the salmon industry explained:

> "They are unions that are created and financed by the industry itself, that is, leaders who speak on behalf of the industry [...], who are also doing all the image washing, because they are financed by the industry, they give them benefits, so they turn a blind eye. They defend what they know to be bad [...] because they are not going to go against something that is important to them. For everyone the industry is important, for us it is also very important because it is a great source of employment, but one also has to say that not everything that is done is good, that mistakes are also made, that there are many bad practices within the company
> *Representative from a national confederation for salmon and mussel workers*

He went on to explain that "company unions" contribute to a climate of fear within unions in which workers are encouraged to protest any proposed legislative changes which may serve to protect the environment (e.g. the establishment of Marine Protected Areas) on the basis

that the proposed changes may lead to job losses. Similar processes were reported in the forestry sector and have been instrumental in suppressing action to protect the environment:

> "The truth is that little by little the leaders started to participate [in pro-environmental actions]. [...] what did the employers do? They put the leaders between a rock and a hard place. They told us "look, if you demand so many things, the environment, all that, you have to close down". So what did the workers do? They sided with the employer, didn't they? And we opted for work. [The company] took their workers to Valdivia and guess what they sent them with? with the chainsaw, without the chain, but they started up the chainsaw in the square [in Valdivia]. An infernal noise. Putting pressure on the government not to bother them [improved environmental practices relating to] their pulp mill."
> *Representative of a Federation for forestry workers*

Thus, the company was able to manipulate workers into rejecting environmental protection measures and demonstrating in favour of company interest.

3.2.4 Individualism

As discussed above, the Labour Code changed the character of unionism in Chile. Representatives sometimes used the term "individualistic" to describe union activities or worker orientations:

> "Here in Chile, unfortunately each union, each union looks after its own needs and not the others. So, if everyone is individualistic, there is very little that can be done at the level of situations that are a country situation, a global situation."
> *Representative of a large copper mining union*

This means there is little pressure from below for unions to engage in activities which would directly support decarbonisation objectives. Further, companies often act to exclude or expel union activists who are developing a more expansive conceptualisation of union organising and activities: "They wanted to eliminate those leaders who had a broader vision of the trade union world" [Sectoral union confederation]. This created a sense of insecurity and fear at work as employers create blacklists, which aim to exclude union leaders or workers who engage in activities aimed at politicising the workplace beyond discussions about pay and conditions. This covert ban on more political forms of unionism is accompanied by practices of deterrence and coercion towards unions. Participation in strikes and negotiation processes can result in persecution of workers, since companies tend to fire these workers with the aim of weakening unions and disciplining the workforce (Alister et al., 2021).

3.3 Mechanisms for influencing for on climate policy

3.3.1 Information provision

As the discussion above has indicated, union organising around climate change in Chile is severely constrained and the issue is broadly ignored by most unions, with the exception of activities undertaken by the national union body CUT and those directly affected by the closure of the coal fired power stations. However, when CUT actors are attempting to influence policy they often engage on an informal level via information provision. This takes the form of policy proposals that it hopes will influence public opinion and potentially the terms of the debate.

Recently CUT has published position papers which comment on various aspects of government climate policy such as the

Special Report on the Escazú Agreement which aimed to help readers 'understand the direction of global, regional and national climate action, to prepare you for full and informed participation' (CUT, 2022, p.1), or the 'DECARBONISATION PLAN (View from the Environment and Just Transition Secretariat of the CUT Chile) (Ochoa, unpublished)[2]. The latter highlights the challenges around decarbonisation from the perspective of workers, potential solutions to these problems, governmental weaknesses which hinder the implementation of potential solutions, and critique aspects of government policy more broadly such as an overreliance on foreign direct investment in the energy sector, lack of centralised planning of energy futures, the tariff structures in place etc.

CUT also works closely with a number of international labour organisations including the International Trade Union Confederation (ITUC) and the Union Confederation of the Americas (TUCA), as well as with Latin American Friends of the Earth branches. These engagements are engaging CUT in broader discussions about the meaning of Just Transition. TUCA in particular has played a crucial role in the Latin-Americanization of the Just Transition concept such that it overlaps with environmental territorially based struggles that are common across the continent (Anigstein and Wyczykier, 2019; CSA/TUCA, 2022)

3.3.2 Strategic power of company level unions?

The only part of the Chilean labour movement perceived to hold the strategic power to disrupt business-as-usual in the government are unions representing workers in the copper sector[3]. This is due to the economic clout of the sector and the relatively high levels of unionisation, which were residual from its nationalisation.

The copper sector has stronger and more durable institutions and coordination than other sectors, leading to more collaborative relationships with the government. One representative from the sector explained:

> "There are seven organisations[4] that bring together almost 90% of the workers in the mining sector in Chile. [...] We are all organised because we are aware that separately we are not able to make progress or influence the authorities and that they should consider the opinion of the sector. [...] . And on the issue of development policy, the climate issue, everything I have mentioned, we have been with various authorities, we are participating in the Higher Labour Council, we are participating in the COSOCs[5], we are participating in meetings with the ministries, the Ministry of Mining, the Ministry of Labour and with all the ministries. So we believe that we can have more influence or that we can actually

2 During the course of the research project one of the CUT representatives who spoke with us shared a number of documents that the organisation had prepared or was preparing on the topic of Just Transition. We quote from these sources in the discussion that follows

3 Also workers from the port unions although none were interviewed for this study.

4 The 7 organisations which make up Mining Workers Coordinating Committee are 1)Federación Minera de Chile: https://federacionminera.cl 2) Confederación Minera de Chile: https://www.confederacionminera.cl/ 3) Federación de Sindicatos Antofagasta Minerals: https://fesam.cl/ 4) la Federación de Sindicato supervisores de la Minería Privada: https://fesumin.cl/ 5) Federación de Sindicato supervisores de la Minería Estatal: https://fesuc.cl/ 6) Esta la Confederación de Trabajadores del Cobre: https://www.confederaciondelcobre.cl/ 7) Federación de Trabajadores del Cobre https://www.ftc.cl/

5 The Consejo de la Sociedad Civil (COSOC) is an "instance where a space is created for the presentation

be listened to more, through this structure that we have given ourselves."
Representative from Confederation of Copper Workers [CTC] a confederation for subcontracted copper workers

The CTC has previously played an important role in the renaissance of labour activity observable via the uptick in strike activity between 2007-2014 and is thus aware of its potentially disruptive power. It was also an actor which has previously advocated for mass mobilisations in favour of legislative reforms (Manky, 2018; Pérez Ahumada, 2021). The seven organisations mentioned above together form the Mining Workers Coordinating Committee (Coordinadora de Trabajadores y Trabajadoras de la Minería).

Much of this organisation's work focuses on health and safety issues, such as the ratification of the International Labour Organisation's Safety and Health in Mines Convention (No. 176). The first tripartite committee on this issue was held in August 2024 (CTMIN, 2024).

As noted in the quote above, unions have the potential to contribute to Civil Society Councils (Consejo de la Sociedad Civil: COCOCs.) However, these forums do not guarantee influence over policy, and other interviewees (from the NGO sector) suggested that they are used to allow actors to feel they have a voice without actually committing the government to implement any of the suggestions received.

Several of the organisations which make up the Mining Workers Coordinating Committee have statements on their websites which critique the country's extractivist model, as it is seen as detrimental to the social and economic development of the country and leads to high levels of inequality (the environmental impact of extractivism was not directly mentioned) (FTC, 2019; FMC, 2022). Thus, although influencing climate policy is not currently a priority for trade unions in the copper sector, the institutionalised capacity exists to make demands in a way which could lead to changes in government policies.

3.3.3 In/Formal consultation

During the previous right-wing Piñera government (2018-2022) the labour movement 'lived in legislative ostracism' [Transport sector representative 1] however, since Gabriel Boric's government took power in 2022, there have been more formal opportunities to influence national policy. Yet, although interviewees could give examples of policy changes which were being sought on issues such as working hours and minimum wage, there was limited evidence that labour actors are seeking to influence the government in relation to their climate policy decisions. As indicated in the quote below, some tripartite forums do exist, but these do not relate to climate as this is an area where unions are not deemed to have expertise:

"I have the impression that the unions are often seen as organisations that do not have the capacity to debate certain issues, as if climate change is something very technical that has to be left to the studies of organisations that are dedicated to the issue. [...] The unions are there to talk about very specific issues, labour issues, but they are rarely invited to talk about big issues, and I think that is a mistake."
Transport sector representative 1

and discussion of contingent issues that affect the community. The members of the COSOC are representatives of non-profit organisations whose objective is to influence and influence the implementation and evaluation of public policies, being of a consultative nature only.". https://www.consejotransparencia.cl/informacion/cosoc/

Union actors felt that the government did not value their input on climate policymaking and was instead relying on input from different social actors who were less likely to consider the impact of climate policies on particular groups of workers.

However, despite the pessimism expressed in interviews, CUT actors had contributed towards the Environment and Natural Resources Committee on the draft law regulating the process of Socio-Ecological Transition Towards Carbon Neutrality, and Alejandro Ochoa, secretary for Environment and Just Transition of the Central Unitaria de Trabajadores (CUT) is one of the 30 experts who contributed to the development of a National Strategy for Just Socio-Ecological Transition between May and October 2024.

CUT's recommendations for changes to the wording of the climate change law had been accepted and thus this important piece of legislation had been adapted such that work and workers were given (slightly) greater consideration. These amendments had been sought in conjunction with Chile Sustentable, a prominent ENGO, led by ex-politician and environmentalist Sara Larrain. Whilst the wording does not equate to concrete policies that will ensure workers are not disadvantaged, the changes sought would at least make their needs more visible. (See Figure 2 opposite for examples of the types of changes requested.)

In informal coalitions unions also got involved in discussions about the new constitution as one interviewee explained:

> "A large number of people discussed the constitutional issue, mainly the labour issue, and we took this discussion forward and came up with a constitutional proposal that was made in two ways. The first instance, we held a virtual meeting in which 90 trade unions at national level took part, then we held a face-to-face meeting in [xxxxxx], we held a third virtual meeting in [xxxxxx] and from there a constituent proposal was born. And this constituent proposal was made before the CUT made any pronouncement, and we made it before the CUT, and we were attacked by the CUT itself.
> *Representative of a large copper mining union*

However, as the quote above indicates tensions between company level and national union bodies mean that these proposals may not necessarily become the formal lobbying position of the nationally representative bodies.

In the lithium sector some degree of involvement in policy making had also taken place as union actors were invited to take part in the 'Mesa de Actores de del Litio' (Table of Lithium Actors) convened in Antofagasta to discuss implementation of various aspects of the lithium strategy. However, most of what was contained in Gabriel Boric's National Lithium Strategy was based on work done by the Lithium Commission in 2016, which took place during the second Bachelet government (2014-2018). Unions were not formally involved in this Commission and as such had not been able to influence the lithium sector and relevant policy development. (In section 4.54 we present some of their demands in this topic.)

Figure 2: Examples of amendments requested to Law 19.300

Article 2 Definition of socio-ecological just transition: process by which the various actors and sectors of society agree on a process to end a polluting activity, transform it and/or create new economic activities that allow for a transition from one stage to a better one, in which social, environmental, energy and economic (ADD) **DECENT WORK** measures are applied in agreement with the various representatives of society, in order to establish measures to mitigate and adapt to climate change, as well as to preserve, restore and/or repair ecosystems. (ADD CHANGE FULL STOP TO COMMA). **(ADD COMMA) "SO THAT THEY (WORKERS AND VILLAGERS) ARE NOT THE ONES WHO PAY THE GREATEST COSTS OF THE NEGATIVE CONSEQUENCES CAUSED BY CHANGES FOR WHICH THEY ARE NOT THE ONES MOST RESPONSIBLE".**

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Article 4 Implementation: The State may (CHANGE **MAY FOR "SHALL"**) establish, guide, prepare, regulate, plan and develop a set of principles, processes and practices that will achieve a socio-ecological just transition. The State may (CHANGE **MAY FOR "SHALL"**) therefore address production and consumption cycles holistically, considering (ADD) **"NOT ONLY WORKERS, BUT ALSO"** communities and nature, in order to move towards a declining economy, decarbonised, (ADD) **WITH DECENT WORK,** free of waste and that encourages nature-based solutions. The sectoral plans regulated by the framework law on climate change should consider a section on just transition in their subject matter, with special emphasis on sectoral plans for energy, mining and transport.
ON THE OTHER POINTS WE SUPPORT THE AMENDMENTS PROPOSED BY SUSTAINABLE CHILE.

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3.3.4 Links with political parties

The CUT has strong ties to political parties. Currently, the Chilean Communist Party (PC) and the Chilean Socialist Party (PS) are the dominant forces within the CUT. Key figures in the leadership, including current secretary general Eric Campos and former president Bárbara Figueroa (PC), and president David Acuña (PS) are members of the Parties.

Following a wave of protests that began in 2011 and the ensuing revitalisation of the labour movement in some industries (e.g., mining, port, industry and retail), Bachelet decided to include the CP in her New Majority (NM) coalition of leftwing parties. During public debates about reforms to the Labour Plan that took place in 2015 and 2016 during Bachelets's second term in office (2014-2018), CUT advocated for restraint rather than mobilisation. This was due to their belief in the Communist Party's ability to discipline pro-business senators within the New Majority's centre-left coalition as well as its lack of structural power to push through those demands (Julián-Vejar, 2020; Pérez Ahumada, 2024).

This led to divisions within the labour movement and ultimately weakened worker power, as the business lobby successfully watered down the potentially transformative nature of the Labour Plan reform bill (Pérez Ahumada, 2021; 2023). These formal links between CUT and the established political parties can function as a double-edged sword, as some to view the organisation as partisan and excessively leftwing whilst others are disappointed it has not taken a more confrontational and proactive approach to dismantling the constitutional and legislative infrastructure imposed by Pinochet (Pérez Ahumada, 2023).

For its part, the Boric's government has presented a challenge for unions. On the one hand there is a recognition that it is receptive to union concerns and willing to take policy decisions which will benefit workers. However, at the same time, he represents a newly formed organisation, Convergencia Social, which unlike the more long standing leftwing Socialist[6] and Communist parties, does not have formal links to the labour movement. The lack of long-term links means that despite the administration's apparent desire to deliver a participatory government and to take citizen concerns seriously, representatives from CUT do not feel particularly well heard:

> "So, I would say that so far, the dialogue on these issues has been more of a dialogue in which NGOs, business and the state have dominated. I would say that trade unionism in Chile is a new actor in this type of debate."
> *CUT representative 2*

We discuss union perceptions of the perceived locus of power in discussions about climate policy in more detail in chapter 4. A key focus of the Boric administration has been action to tackle pollution problems in the sacrifice zones. This priority reflects the current leader's long-standing connections to social movements and the strength of the environmental movement in Chile more generally, which is well resourced and highly professionalised. However, union actors feel that the government gave excessive weight to petitions made by environmental NGOs, and that this was at the expense of reproachment with unions:

6 The Socialist party held power between 2006-2010 and 2014-2018, the Communist party was 2014-2018 coalition.

> “I think with this government it happens on many levels, because they are not so much related to trade unionism in general. They have more interest in NGO type of foundations in relation to the environmental issue, but not necessarily with trade unions [...]
> *Transport sector representative 1*

This exclusion was felt to be producing concrete outcomes: relying on input from ENGOs means that environmental policies in Chile are neglecting the impact that changes may have on workers. Despite rhetorical commitments to retraining programmes for workers affected by the closures, as we see in detail below, these promises show little sign of being fulfilled.

4. Labour, decarbonisation and Just Transition

4.1 The government, ENGOs and the contested scope of Just Transition

Due to the incorporation of Just Transition as a pillar within the NDCs, the Chilean government has been a central actor in the rollout of formal Just Transition plans. The top-down government-driven approach to Just Transition has been in place since the country's NDCs were updated in 2020 when right-wing President Sebastián Piñera was in power. The NDCs were driven by then-Environment Minister Carolina Schmidt who, acting as President of COP25, presented the ambitious mitigation targets, including the Social Pillar: Just Transition and Sustainable Development.

This document defined Just Transition as 'a future-oriented framework focused on action that identifies opportunities for public and private investment in both sustainable and inclusive economic development. The just transition is based on global consolidated frameworks on climate change, human rights, labour standards and inclusive growth' (Gobierno de Chile, 2020a).

In 2021 the Just Energy Transition Strategy was published. This document was built around four themes: 1) Transition with a focus on people; 2) Economic development and productive development; 3) Environmental development and a territorial approach; 4) Participatory governance and public-private coordination. The strategy is a general framework which, for its implementation, involves the development of Local Action Plans in the municipalities where coal-fired power stations will be closed or converted (Ministerio de Energía, 2021).

The Just Energy Transition Strategy predicted that the transition away from fossil fuels would create 43,000 new jobs in renewable energy sectors. This figure includes those created during both construction and operating phases, but does not factor in potential job creation from the development of a green hydrogen industry and associated value chain, which is also expected.

Predicted job losses from the closure of the coal-fired power plants amount to around 4,390 direct and 9,500 indirect jobs. In 2018, the coal-fired power generation sector produced 0.7 per cent of the country's GDP at the national level, but this is unevenly distributed and rises to 4 per cent in Huasco, and 3.7 per cent in Tocopilla and Mejillones together.

In terms of jobs, these three regions are also likely to be the most impacted, with the plants representing 6.8, 4.4 and 3.8 per cent of employment respectively (Viteri Andrade, 2019; Ministerio de Energía, 2021). However, it is worth noting that to date none of the power station in Huasco have a closure date (Ulloa, 2024).

Nevertheless bearing these employment impacts in mind, the Just Energy Transition Strategy promises to 'promote employment and training for the population negatively affected by the closure of coal-fired power plants and facilitate their incorporation into new sources of employment or enterprises, whether in the energy sector or outside the energy sector' (Ministerio de Energía, 2021, p.18), as well as stressing the local environmental benefits of the coalfired power station closures, such as reduced air pollution.

Boric was elected president on a pro-environmental platform (Terram, 2022). Under his government a shift in policy priorities can be observed. One aspect of this shift was the rebranding of Just Transition as Just Socio-Ecological Transition. Following extensive

consultation with Chilean civil society actors, the country's plan for a Just Socio-Ecological Transition has been defined as:

> "A process of transformation and/or adaption of sociocultural systems towards ecosystem balance, wellbeing of people and sustainable productive models in the face of the triple environmental crisis which is the loss of biodiversity, climate change and contamination – ensuring a focus on human rights, equality between genders and decent work."
> *Biblioteca del Congreso Nacional, 2024*)

This definition is significantly more expansive than the definitions used by international organisations such as the ILO or the IPCC. For example, the ILO definition states that Just Transition means 'greening the economy in a way that is as fair and inclusive a s possible to everyone concerned, creating decent work opportunities and leaving no one behind' and the IPCC definition as 'a set of principles, processes and practices that aim to ensure that no people, workers, places, sectors, countries or regions are left behind in the transition from a high-carbon to a low carbon economy' (ILO, 2021; Intergovernmental Panel On Climate Change (IPCC), 2023). On the other hand, the Just Socio-Ecological Transition has as defined above has much more explicitly transformational intentions and clearly intends to initiate policies which directly challenge the status quo.

The Chilean government's definition indicates an aspiration to use the changes required by decarbonisation to create a springboard for addressing a wider variety of environmental issues, rather than allowing what has been termed 'carbon tunnel vision'[7] to take precedence. There is clearly an aspiration to deliver a Just Transition which is broad in scope[8].

This broadened focus of Just Transition is strongly supported by environmental NGOs in Chile, whose understandings of Just Transition contest the European and North American focus on industrial workers. As one ENGO representative explained:

> "Just Transition [...] has its origin, in the global North, in the United States, in Europe. [...] What is the biggest difference when we talk about Just Transition in Latin America? [...] It has to do with the fact that here the discourse on Just Transition does not come from the trade unions, it comes from the environmental movement for climate justice based on the defence of territories and the struggle against extractivism. [...] In fact, historically, it has been seen that some unions, for example, associated with mining or oil extraction or other extractive activities, have resisted transition processes because they see it as a possibility of losing their source of employment. [...] This also implies that the discourse of Just Transition in Latin America has a much more climate justice focus, and places environmental restoration and the restoration of territories as a much more central point than in other parts of the world, where

7 This term is used to describe an overly narrow focus on carbon emissions at the expense of other interlinked and equally pressing socio-environmental crises such as biodiversity loss, inequality, water crises resource scarcity etc.

8 Scope refers to the degree of inclusivity of with Just Transition visioning. Does it include both vulnerable and powerful actors?

perhaps social security, health, and elements linked to job stability and job replacement are much more predominant."
ENGO representative

For this interviewee the "transition" relates to a movement away from an extractivist model of growth and the "just" part of the term relates to the impact that extractivism has had on communities hosting the extraction and processing of the raw materials that Chile sells to the global economy. Rather than being at the core of debates about Just Transition, labour actors are viewed as peripheral, and even as potential obstructors to the fulfilment of Just Transition principles. The historical experiences of Latin American countries as providers of raw materials to the global north shape the country's priorities for future transformations and arguably move the understandings of Just Transition closer towards the concept of environmental justice.

The highly visible and concrete impacts of industrial pollution in Chile's sacrifice zones mean that these problems have much greater salience to the Chilean public than the more diffuse threat of climate change (Madariaga and Allain, 2020; Aedo et al., 2023) or even the job losses associated with the closure of coal fired power stations. However, this quote from the NGO representative above also sharply illustrates potential sources of conflict, as it dismisses union concerns about the impacts of job losses on the populations they represent as irrelevant or somewhat parochial within the context of a broader struggle for a more sustainable economic model for Chile and the world more generally. As a result of the increasingly capacious definition of Just Transition, and limited interest from some ENGOs in integrating union perspectives into the discussions, unions feel uneasy in their relationship with ENGOs. As one interviewee commented:

"There is no homogeneous action or discourse in NGOs on this issue. I don't know, I've met people like [prominent environmentalist] who believe that the labour discussion is fundamental in the dispute over linked territories, the environmental debates. And there are others who point out that all kinds of plants that emit, at all costs, must be shut down, regardless of the costs. I don't know if they say it so clearly, but there is no prioritisation or relevance of the labour or social factor in these discourses."
CUT representative 2

This is not to imply that union actors are not sympathetic to problems in the sacrifice zones, but rather that they felt that labour perspectives and concerns were being sidelined. As CUT notes in its position paper Just Transition and Energy Reconversion in Chile:

"This term Just Socio-Ecological Transition [...] is a term that Chile presented at COP27 that in our view seeks to hide the most important bastion of the Just Transition, which is the importance of workers in this development, the main link being LABOUR, THE WORKERS, because neither social nor environmental issues can ensure what workers and their organisations can, [sic: access to?] "JUSTICE"
CUT, 2024

The predominance of ENGOs at the expense of labour actors in the expert panel that helped develop the National Strategy for Just Socio-Ecological Transition (ENTSEJ) (discussed above in section 3.33) means CUT representatives interviewed felt the focus of the strategy was entirely on meeting environmental objectives, with little regard for

the social implications and in particular the detrimental impacts that enacting such change could have on workers. This also reflects a longer term tendency in Chile for ENGOs to play a prominent role in environmental policy making (Madariaga and Allain, 2020).

4.2 Chile's Just (Socio-Ecological) Transition in practice

Between 2019 and 2024 11 Chilean coal fired plants were closed, out of the 28 that were in operation in 2018 (Ulloa, 2024). This has occurred under two distinct political periods.

As noted above, as a result of the closures Just Transition tables have been formed between various government ministries, unions and company representatives. The results of these round tables supposedly fed into the creation of the 2021 Just Transition Strategy in the Energy Sector which was the precursor to the Just Socio-Ecological Transition strategy (ENTSEJ: Spanish acronym). The stated objective of the Just Transition round tables was:

> "To be a space for the exchange of information to promote good social, economic and environmental practices in relation to the closure and/or reconversion of coal-fired power plants in the country, and to enable collaborative work in the process of building the Just Transition Strategy."
> *Ministerio de Energía, 2021*

However, according to the representatives spoken to, the meetings consisted solely of discussions, which did not meaningfully advance any of the goals stated in the documents published by the government. This has been the case in meetings that took place under the Boric as well as the Piñera administration.

The union representatives also reported that, in direct contradiction to the Just Transition Strategy in the Energy Sector and the ENTSEJ, that there was no meaningful dialogue or the ability to shape policy proposals:

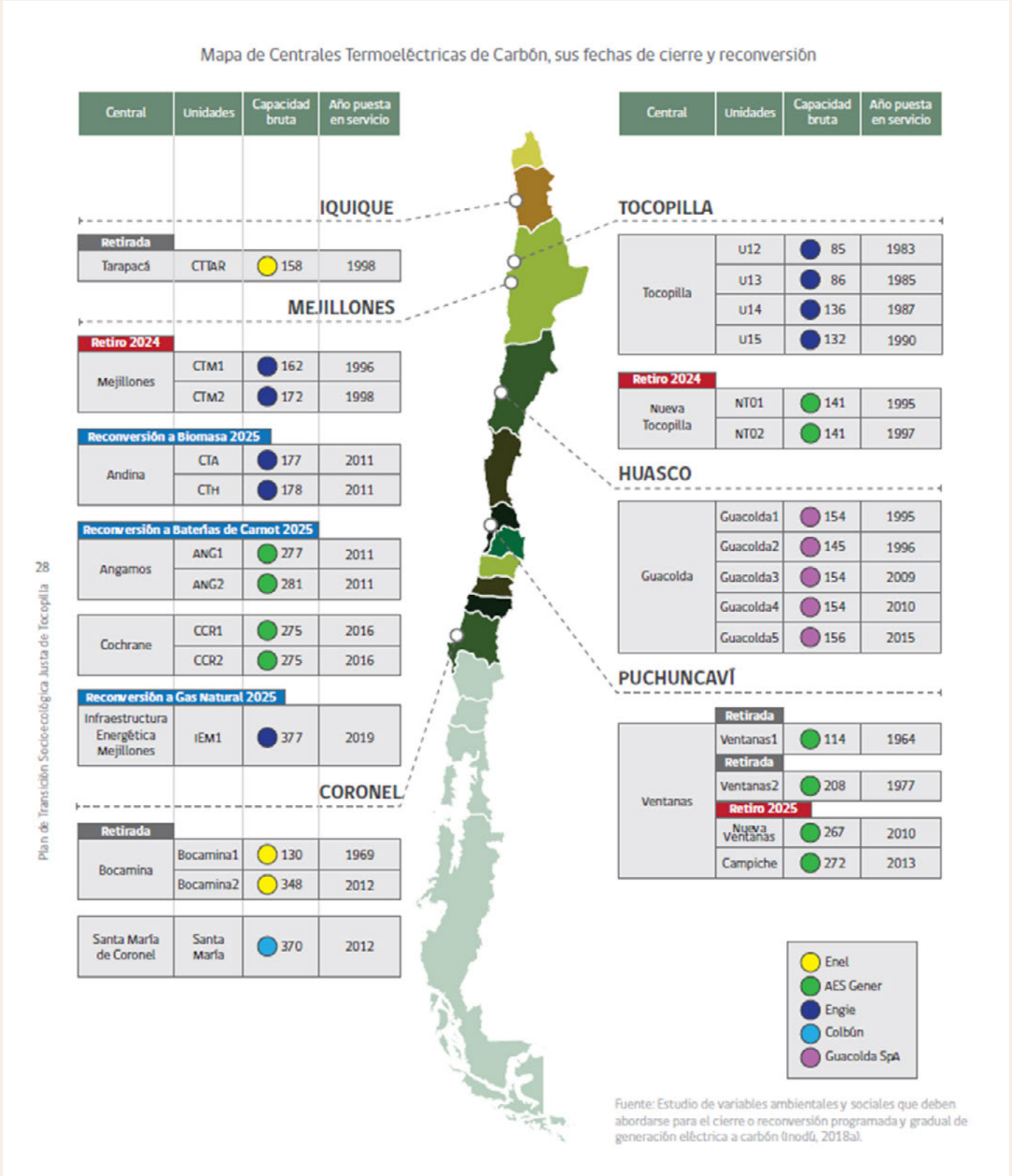
> "As I said, we had been at more than 40 tables and we achieved absolutely nothing. So it was already a recurring trend to meet, to talk about the same thing. We proposed to them, we explained in detail everything that this implied, and in the end they said no, no, there was no money, that it was very complicated, that the company had to see it in its own way, that they could not force the company to do it."
> *Representative from coal fired power union*

This comment indicates the institutionalised weakness of the government in relation to business interests in Chile (Silva, 1996). A government representative who had been involved in negotiations during the Piñera government noted that:

> "One of the shortcomings was that those who were at the table were not the decision makers. So they took notes, they took notes and then they said they were going to pass it on to their boards or management. And that's where we remained."
> *Government representative who attended dialogue tables under Piñera*

The lack of participation from company representatives who had the authority to make decisions about financial matters also meant that it was impossible to identify a specific budget to pay for compensation or training schemes to support workers who needed to transition into new roles.

Figure 3: Map of coal fired power stations and their closure or reconversion dates (Source: Plan de Transición Socioecológica Justa de Tocopilla)



In its 2022 Energy Agenda, Boric's government indicated that government action on Just Transition will be focused on three areas of work: (1) development and implementation of Just Energy Transition Plans, i.e. the development of comprehensive plans to ensure energy supply and price is secured and new skill development is supported for workers affected. (2) Sustainable development of energy projects, i.e. sustainable energy projects must respect and benefit the communities and territories that host them[9] (3) improving and building a respectful relationship with communities (Ministerio de Energía, 2022, p.67).

This plan proposes that Just Energy Transition Plans are implemented in communities where coal fired power stations are being closed. The strategy recognises that the retirement of coal fired power plants will impact workers and surrounding communities and highlights the need for economic diversification and new types of employment and training opportunities as well as health and environmental remediation interventions.

Delivery of these Just Energy Transition Plans to be implemented via Local Action Plans in the communes of Tocopilla, Mejillones, Huasco, Quintero-Puchuncaví and Coronel where there are high concentrations of highly contaminating industries which cause significant problems to population health and wellbeing, causing them to be known as "sacrifice zones".

Action Plans aim to address environmental and social reparation of the territories damaged by the operation of coal fired power projects and other industrial activities, and will supposedly establish measures to promote employment, training, and productive reconversion in coordination with the Ministries of Labour, Economy, Development and Tourism (Ministerio de Energía, 2022).

These interventions intend to build on work done by the Environmental and Social Recuperation Programmes (PRASs) and the Council for Environmental and Social Recovery (CRAS), which have been ongoing since 2018 and which bring together 10 ministries to advise the President on issues related to the policy and institutional transformations required for a Just Transition (Ministerio del Medio Ambiente, 2023). CRAS and PRAS are multistakeholder engagement programmes developed in the sacrifice zones of Coronel, Huasco and Quintero-Punchuncavi and initially launched in 2016.

Comments from CUT representatives on the success of these initiatives suggested that they had helped alleviate some of the difficulties communities around the power stations faced as a result of the closures, although the centralisation of Chilean state limited their potential impact. However, these PRASs were not deemed to have been a success according to interviews with environmental NGOs.

From the NGO perspective, failures related to the under-financing of the initiatives and the reliance on civil society organisations for the implementation of the measures suggested by the programmes with the aim of the programmes being to reduce tension rather than making meaningful changes. Despite these perceived failings citizens are apparently supportive of efforts to improve the function

9 Chile has numerous social conflicts relating to the siting of renewable energy infrastructures. However, as the Just Transition conflicts are primarily driven by community and ENGO actors without the direct participation of labour they are not discussed extensively here. (For further detail see Tigre et al., 2023).

of the PRASs by building on the work already carried out by the CRASs as part of Just Socio-Ecological Transition initiatives.

As PRAS/CRAS was not active in Tocopilla a Socioecological Just Transition Plan for Tocopilla was published in 2023 where to date 4 of the 6 power stations operational have been closed.

An additional document detailing 40 concrete actions which would form the substance of the Just Socio-Ecological Transition for Concón, Quintero and Puchuncaví where 2 out of 4 power stations have closed so far was also published in 2023. The 40 actions included already enacted plans to close the Ventanas Smelter and the AES Gener coal power plants, as well as other short-term commitments including:

- institutional developments such as a Just Transition Office,
- changes to air quality regulations to reduce levels of benzine, sulphur dioxide etc,
- plans improve monitoring capacities, projects intended to improve soil quality,
- interventions to improve population health in instances of poisoning,
- training and support packages for small businesses,
- training for people affected by the plant closures with courses aimed at 'high employability' (such as national and international cuisine, forklift operation),
- management of emergency maintenance operations for electricity distribution networks,
- information gathering about those affected by the closures to enable training and employment pathways to be developed.

There are also longer-term initiatives such as wider reviews of environmental regulatory guidance leading to new environmental standards, new health infrastructure 'productive reconversion strategies' to make up for lost jobs, actions to determine environmental liabilities of contaminated soil, and appropriate management systems and plans.

Considering the classification scheme proposed by Stevis and Felli (2020) these community-based approaches suggest that Just Transition is being implemented more actively at the local and territorial levels, thus it is being rolled out at a relatively narrow scale, i.e. focused on specific places. However, it can simultaneously be considered broad in scope as a wide variety of actors and issues beyond directly employed displaced fossil fuel workers are considered in the policy interventions listed above.

4.3 Labour's critique: Green capitalism at workers expense?

Another important theme to emerge from the interviews with union stakeholders, particularly CUT actors, was the belief that business interests are using decarbonisation to drive their own agenda of increased profit extraction. This is a view that has also been expressed in more formal statements by CUT such as their commentary on the decarbonisation plan, which stated that:

> "The problem that emerges when decarbonisation is mainly driven by the business world, as it is at present, is that the interests behind this initiative are seen to be more related to economic profitability than to social or environmental welfare."
> *DECARBONISATION PLAN (View from the Environment and Just Transition Secretariat of the CUT Chile) (Ochoa, unpublished)*

Unions' discussion of Just Transition is currently spearheaded by the CUT Environment and Just Transition Secretary, who has been involved in national and international debates and committees on Just Transition policy. CUT representatives, like many other union activists globally, are critical of the pace at which decarbonisation is being delivered:

> "We're a little bit concerned, from what I'm telling you, that this issue [the climate agenda] is being led by multinational companies rather than the government. [...] And the other problem we are seeing is that there is a lot of influence from the needs of the European Union, but not at the pace of the need of the problems in Chile.
> *CUT representative 1*

The speaker above is identifying a number of related challenges. Firstly, he is concerned about the outsized role being played by business interests. The current (relatively inexperienced) President is perceived to be weak in relation to highly organised and well-resourced business elites. Secondly, he identifies the EU as a key beneficiary of emissions reduction policies. This perception implies a colonial and unequal relationship with respect to the way that decarbonisation is being organised. Thirdly he indicates dissatisfaction with the pace of change in Chile.

As noted earlier, trade unionists feel the groundwork needed to engage citizens and workers about the need for radical action to decarbonise the economy has not been laid. As a result, support for addressing the country's emissions is threatened by the desire for immediate action without adequate preparatory work, or as we see in more detail later, without established support policies, especially for workers.

CUT actors also felt that allowing many of the old coal fired power plants and other polluting forms of industry to close without holding companies accountable for the local damages was letting companies who should be liable for clean-up and healthcare costs off the hook:

> "What is even happening in some places is that companies are closing down with great fanfare, with television, even with the president. And we even find that insulting, because how can the president come out like celebrating that a company is closing and has been polluting for 40 years? It has been killing the family and the children of the sector for 40 years and it is as if we are thanking it! On the contrary, it should be apologising. So it's a bit of a controversy. For example, it happened in a copper smelter where for a long time the workers have been pushing for the state to invest in the emissions capture, [...] but in the end it decided to close instead of investing in the pollution abatement and that meant [a loss of] more than 600 jobs"
> *CUT representative 1*

As indicated in the above quote, union actors recognise the problems that heavy industry creates for local communities but contest the approach taken by the current government. They view the current approach as wrong because workers are suffering job losses but companies are not being held accountable for the historic pollution or the problems that this has caused. However, despite dissatisfaction with the current government's approach, there is strong support from labour (CUT in particular) for addressing problems in the "sacrifice zones" and they have developed their own proposals for how corporate negligence and environmental health issues ought to be addressed.

Interviews with union representatives revealed various ways in which business interests profit from the green transition. There were instances reported of attempts to use the transition to a greener economy to worsen working conditions for workers by using the "newness" of renewable energy developments to roll back protections won by company unions after decades of struggle.

This was achieved via a legislative loophole which allows companies to register different arms of their companies under different tax codes. The ability of companies to have multiple tax codes within the same company not only serves to keep unions small and prevent workers from organising across the breadth of the company, but also means that if workers move into renewables, even within the same company[10], their previous terms and conditions will not necessarily apply. Also, there have been instances in which energy companies have sold their fossil fuel assets to new owners, without guaranteeing that terms and conditions of employment, including recognition of years of service will be maintained:

> "The company took us to another company, so we were technically dismissed, but they didn't pay us severance. Then, [...] if they ever sell us, directly, where again they don't pay us anything and the other company takes you and, later, when they fire you, they pay you for the two years that correspond to the law in Chile and you lost all the years of service. [...] To feel that, perhaps, they are doing a lot of tricks

10 As noted earlier energy generation in Chile is highly centralised

to avoid paying you what you are owed. It makes you feel even worse.
Union leader in coal, fired power sector

Unions within the coal fired power sector are actively contesting these attempts to worsen their terms and conditions of work and, with the support of NGOs, have managed to negotiate clauses within their collective bargaining agreements which ensure that in if coal fired assets are sold then terms and conditions will be maintained. Whether it is possible to maintain these agreements over time is a yet to be determined and may require legal action and litigation.

Another example came from within the transport sector, where the desire for more efficient usage of resources was driving what has been portrayed as the "greening" of Santiago's metro system. This process has involved automating tasks previously carried out by workers, such as selling tickets and driving trains. Automating ticket sales allows better collection of data on the flows of passengers, the purported logic being that this can aid the allocation of resources across the network, reducing the environmental impact of public transport. However, the same processes concurrently allow the train company to cut staff and foist additional responsibilities onto those who remain. It is now common for a sole operator to oversee all activities including ticketing, train driving and customer service, potentially being responsible for multiple stations at once.

A representative from the International Transport Workers Federation who had worked to support Chilean public transport unions noted that the company often framed worker concerns about job loss/ intensification as regressive attempts to prevent decarbonisation: "they [companies] often pit the workers who are against any of these new technologies as basically against climate measures" [Representative from International Transport Workers Federation]. This can be seen as a strategy of 'symbolic disempowerment', as attempts to block changes that undermine working conditions, and worsen service quality and are framed as "regressive" or "anti-environment" and as potential obstacles to climate action.

4.4 Just Transition: Proposals from organised labour

As the previous discussion has outlined, Chilean labour's engagement with Just Transition is compartmentalized into several discrete sections of the labour movement which are not currently working together to produce an overarching position on the issue.

In this section we present Just Transition perspectives and actions of CUT and the coal fired power unions as well as the few additional pockets of action that were identified in the lithium and transport sectors.

4.4.1 CUT's transformative Just Transition

In the wake of what is perceived to be the co-option of the green agenda by corporate interests, CUT actors in Chile have started to develop their own set of priorities, highlighting critical elements of a Just Transition and climate policy which they considered to be lacking in government plans to date and proposing their own, more worker focused transformative vision for Just Transition.

We have reviewed blogs, tweets, reports and position papers produced by CUT. These outputs are broadly in line with core Just Transition principles. For example, a 2023 blog authored by the CUT Environment and Just Transition Secretary Just Transition states

that Just Transition should recognise the 'right of workers and affected communities to have decent work with social protection guarantees that include all those affected by climate policies and those who are suffering the impacts most severely, so as not to leave anyone behind" (Ochoa, 2023).

A key document reviewed was the 84-page CUT 2023 policy paper: Just Transition and Energy Reconversion in Chile (C.U.T. Chile). This paper makes the case for a transition which is much more than a shift away from fossil fuel energy systems and instead addresses numerous social injustices such as the need for high-quality jobs, better social security protection, retraining opportunities, improved planning and tax systems, the chance to participate in discussions about climate change, repair and remediation of communities damaged by polluting activities, an economic model less dependent on free trade agreements, improved access to health care and a more careful engagement with upcoming technological change such as artificial intelligence.

This broad focus reveals a clear preference for a Just Transition that is broad in scope (Stevis and Felli, 2020) and the desire of unions to enfold pre-existing policy positions and priorities into the Just Transition agenda.

The Just Transition and Energy Reconversion in Chile (C.U.T. Chile) document echoes points made by international trade union organisations such as Trade Unions for Energy Democracy (TUED), for example stating:

> Ultimately, our goal is to foster an informed and constructive dialogue that advances the well-being of workers and contributes to a more equitable, sustainable and democratic energy future in Chile - in short, Energy as a Right, not as a commodity"
> *Ochoa and Urrutia, unpublished*

A significant effect of the energy crises discussed earlier has been unstable and rising energy prices and high levels of variation in energy prices across the country. Despite the rapid expansion of renewable energy projects citizens have not seen the fall in energy prices that were promised as a result.

The paper notes that although the Tariff Equity Law (Law 20.928), which intended 'to avoid discrimination and ensure that all people have the ability to access basic services necessary for their wellbeing' was passed in 2016, its success has been mixed, and it has not compensated for historically high energy prices, and significant disparities remain.

As such, the document proposes further measures, including allowing citizen input into the design of new electricity tariffs, further reductions in tariff gaps between regions and sectors, incentivising renewable energy generation, energy efficiency programmes and further support for vulnerable, often rural, groups at risk of energy poverty[11].

The Just Transition and Energy Reconversion in Chile (C.U.T. Chile) document also makes concrete suggestions relating to how the citizen participation can be improved via changes to the Citizen Participation in Public Management Law (Law 20.500). Suggestions include establishing specific provisions to require citizen participation, transparent criteria for how and when citizens can be involved in the design implementation and evaluation of projects, adequate consultation times, better dissemination of information and project timelines, a more inclusive approach to participation and the monitoring of outcomes and strengthened role for Civil Society Councils (COCSOCs) and mechanisms to allow participatory budgeting.

The document also recognises the importance of action to address problems in the "sacrifice zones" and highlights how coal-fired power plants are a significant source of air pollution as well as causing problems via their use of large volumes of water for cooling which disrupts artisanal fishing and shellfish gathering.

Although green taxes are in operation and have been since 2014, the document criticises them for being too low and suggests that CO_2 should be taxed at $40 per tonne instead of $5. Contaminants such as nitrogen oxide, sulphur dioxide and particulate matter, which are currently taxed at $0.025, $0.01 and $0.9 per tonne, respectively, should all be taxed at $40 per tonne to help pay for social and environmental remediation costs.

Similar to the government actions outlined in section 4.2, the document notes the need for epidemiological studies to understand the health impacts of pollutive activities on communities, and investment to ensure access to the necessary healthcare facilities to deal with these issues are in place as well as funds for the remediation and restoration of local

11 The limited impact of these proposals is revealed ongoing increases in electricity prices in the country. While there was a rate freeze between 2019 and 2023, prices increased in 2024, to adjust the "accumulated debt" from previous years. With low volume users seeing price rises of 18%, 36% and 30% for low medium and high users respectively (Plataforma Energia, 2024).

environments. It stresses that workers (direct, subcontracted, and indirect) (Ochoa, 2023; Ochoa and Urrutia, unpublished). However, these policy proposals are unlikely to be taken seriously by those directly involved in policy making.

This approach intends to give the social (or human) impacts equal or even greater precedence over environmental impacts, which is an area where, as identified above, it is felt that the government is sometimes lacking:

> "If we take the human being out of the centre of climate change, and we only worry about the planet. It is impossible for us to save the planet. We believe this here in Chile, and we have criticised the Minister for the Environment, the slogan "save the planet and that's why we have to stop polluting". It is not fair, the slogan should have been "let's save the children we are polluting, let's save the community, which we are killing, and with that we are going to save the planet. This is, at least, what we have proposed from here that the human being has to be the main entity, because if not, if we take the human being out of the importance, the truth is that the company, at least from our point of view, is going to see this as a new way of doing business and not as a beginning of starting to love us, to respect us as human beings."
> *CUT representative 1*

It is notable that a human- centred approach to climate change is viewed as an antidote to the co-option of the environmental agenda in service of increased profit-making by businesses. It is also notable that an immediate, concrete people-centred approach is viewed as essential by CUT for building consensus around the need for policies that mitigate carbon emissions.

This type of narrative starkly contrasts to more abstract universalist approaches, which focus on the need for emissions cuts of X percent to avoid globally catastrophic warming levels. Although CUT actors were critical of government approaches, these demands appear to overlap significantly with Boric's Just Socio-Ecological Transition Agenda as implemented during the latter half of his term as many demands are similar to those that form part of the Plan of 40 actions for Concón, Quintero y Puchuncaví discussed above, although its retroactive application means that holding companies to account may prove difficult.

This expansive approach to Just Transition policymaking can be partly linked to early work carried out by the Trade Union Conference of the Americas (TUCA), which was created in 2008 and 'never limited its action strategy to the economic-corporate claims of traditional unionism' (Anigstein and Wyczykier, 2019, p.111).

At the Rio + 20 counter-summit in 2012, the demands of Latin American unions were strongly influenced by the 'environmental/ territorial turn of social struggles on the continent', and the summit constituted a watershed in relation to the articulation of the peasant, feminist, environmentalist, and labour movements (Anigstein and Wyczykier, 2019, pp.111; 117). In 2018 TUCA held its 3rd Regional Conference on Energy Environment and Work (CREAT: Spanish acronym) which aimed to 'move forward towards the definitions the labour movement was to adopt with regard to environment and energy issues from the perspective of an alliance with other social movements and sectors of civil society' (CSA/ TUCA, 2022, p.2).

Many of the suggestions discussed above have emerged from this ongoing collaboration

between the International Trade Union Committee (ITUC), the American Trade Union Committee (TUCA) and Friends of the Earth Latin America which ran a project called "Energy Democratisation and a Just Transition in Latin America and the Caribbean", These collaborations make the case for a Just Transition which delivers improvements to a more broadly conceptualised working class composed of informal and precarious workers, indigenous peasants, etc rather than just the (relatively) privileged workers directly affected by the closure of industrial facilities (Bertinat and Proaño, 2021; CSA/TUCA, 2022).

4.4.2 A Just Transition for coalfired power workers?

CUT's Just Transition position paper (discussed above) also refers the need for the retraining or 'recycling' of labour' (reconversión laboral/ reciclaje laboral). Labour retraining is considered critical for a Just Transition; however, the document acknowledges that barriers exist which may prevent workers whose jobs are impacted by decarbonisation from moving smoothly into new jobs and different types of work. These include difficulties in identifying training needs, resistance to change and a lack of government support for the facilitation of labour reconversion.

CUT suggest that the term "retraining" may in fact be unhelpful as it minimises the need for ongoing training in the workplace and may lead to the undervaluation of the valuable skills already acquired by workers throughout their careers (Ochoa and Urrutia, unpublished).

However, the proposals for labour reconversion appear less detailed and specific in comparison to other sections of the document. For example:

> "Some jobs that could be affected in the short term are those directly related to the generation of energy from non-renewable sources, such as jobs in coal- or natural gas-fired power plants. As cleaner energies are promoted, it is possible that these plants may reduce their operations or close, which may have an impact on workers in these industries. On the other hand, as demand for renewable energy grows, new jobs related to the installation, maintenance and operation of wind farms, solar photovoltaic plants or other clean energy infrastructure will emerge. Electricity retrofitting can also drive job creation in areas such as renewable energy system design and engineering, sustainable project management, and green technology research and development.'
> *Ochoa and Urrutia, unpublished*

These comments seem disconnected from the concerns raised by coal fired power workers which revolve around the difficulty of accessing jobs in the renewables sectors due to the low level of labour demand these technologies often produce despite promises to the contrary (STUC, 2019; Nasirov et al., 2021), and the high degree of uncertainty around future prospects which the ongoing closures have generated. As such, it appears Chilean coal fired power sector workers have not been actively participating in the production of policy proposals for Just Transition by the nationally representative organisation (CUT).

This assertion was backed up by comments from interviewees who emphasised that CUT was not supportive of their needs and had not sent representatives to attend dialogue table meetings with the affected workers:

> No, the CUT has never helped in the struggle, no. [...] It has not made any improvements, or been a bridge between the employer and the workers. In the past, I remember that they showed up when there was a strike, they showed up and gave their speech. And now nothing, they don't even show up. Apart from the fact that they are friends of the government in power, so they are concerned with other things.
> *Representative of a coal fired power union*

The distant relationship between company level unions and CUT was emphatically stated by numerous interviewees from this sector as well as other sectors as we saw above.

Discussions with union representatives in the coal fired power sector as well as with the workers they represent revealed that these actors have a much narrower conceptualisation of the term Just Transition that the ideas espoused by CUT. Due to the lack of tangible support from government or company actors throughout the coal fired power phase out, action and rhetoric by union representatives was focused on negotiating for support policies such as a pension boost for older workers, priority access to jobs in renewables including specific quotas for those exiting the coal fired power sector, help with the cost of relocation where required, compensation payments (potentially), continued access to company health care

plans following retirement, the maintenance of pre-existing work benefits such as pay, bonuses, educational support for dependants, holiday pay etc.

Although at the site studied for this research an exit plan was eventually agreed in which workers are entitled to social security, compensation, support and retraining if or when the coal fired power station ceases operation, the general mood amongst workers and representatives with respect to how the country's Just Transition policies were being enacted remained one of extreme dissatisfaction. Further, these agreements are not standard across the sector but rather are, dependent on the commitment and negotiation skills of individual union leaders.

Here the "individualised" union orientations identified earlier could be observed in action as the focus of union concern was of much narrower scope. Union action was focused on the core workers whose jobs were at risk rather than the effect of the closure on subcontracted workers or the high levels of toxicity experienced in the surrounding community. Some workers even felt that pollution concerns in the surrounding sacrifice zone were exaggerated by stakeholders for personal gain.

Although union actors expressed concerns about the impact that the closure of the stations would have on local communities and workers who provided services to the workers at the plant, the recalcitrant attitude of the state and company mean that most energies and activities were absorbed on more insular concerns.

4.4.3 Just Transition collective agreements in the transport and mining sectors

During the run-up to the vote on the new constitution, the Metro Union Federation was approached by the International Transport Federation (ITF), which was carrying out projects that aimed to stimulate discussions around how climate change policies were affecting workers and the meaning of Just Transition in the transport sector. In the resultant meetings a decision was taken to establish an inter-union public transport network (Mesa Intersindical) that included the metro unions, as well as bus, train and colectivo[12] unions.

The aim was that this mesa would act as a working group which would give trade union sectoral level input into government policymaking once the new constitution[13] was in place. As the new constitution was rejected, this power to directly shape policy via sectoral level bargaining was never realised, however the Mesa Intersindical has remained operational and aims to shape public debate around the role of public transport expansion and emissions reductions in coming years.

Constitutional reform is understood by union and ENGO actors to be a critical aspect of the Just Transition and climate policy making more broadly. The financial resources the ITF provided to support the initial meetings were crucial in the emergence of this initiative.

Although the Mesa Intersindical has been unable to negotiate sector wide agreements on pay and working conditions, there have been some positive outcomes from this project. For example, as a result of the expertise developed by those involved,

12 Colectivos are a shared taxi service that run on particular routes

13 The first new constitution presented to the population included the provision for sectoral bargaining

the concept of a Just Transition has been introduced in collective agreements affecting subway workers.

An agreement signed in 2022 recognises that climate change is accelerating the processes of technological transformation, affecting 'not only modes of production, but also the organisational structure and management of the enterprise and, as a consequence, different industrial relations frameworks'.

As such an agreement to form a 'Bipartite Committee for Consultation and Fair Transition' was reached. This will be a space for formal discussion between management and workers as to why new technologies are needed and offer reparations to any workers affected. (Collective Agreement (2022-2025) Trade Union of Metro Workers p50.)

This work was facilitated by the fact the General Secretary of CUT is also the president of the Federación de Sindicatos de Metro, and due to his high-level responsibilities in CUT, is familiar with the Just Transition concept and its potential utility for workers affected by policies aimed at greening the economy.

The electrification of transport is also beginning to affect the mining sector and may prove the route through which the Just Transition concept becomes operationalised there also:

> "We made an attempt in the last negotiation, which was in 2021, to incorporate a concept of just transition [in relation to automation and electrification] and it was rejected by the company. We didn't manage to give it the necessary force because the workers don't push it either, because they don't understand it either. So workers today are very simplistic, they say well, "if I don't work here, I'll work there, if I don't work there, I'll work here" and definitely in the common response they are not going to cut my hand off. And that is not the issue. The issue is how such a large transnational company comes to take out all the resources and what is the amount of resources they leave in the country to be able to deal with this issue, because not only does it mean being left without work, but it also means less income for the state, it means more burden for the state to be able to cover people without jobs.
> *Representative of a large copper mining union*

The comments above also reveal a lack of associative capacity on the part of workers impeding their ability to push for a just transition agenda. This goes hand in hand with a gap between the knowledge and information available to union leaders in the extractive and energy sectors and that of rank-and-file workers.

As has been previously discussed, building support for Just Transition bargaining clauses is hampered by a low level of understanding of decarbonisation and technology change issues in the workforce: workers are unaware of the depth of change that decarbonising the economy will precipitate and do not have sufficient information about the impacts of these processes. This is reinforced by a culture of delegation of union representation to leaders (Julián-Vejar, 2018).

On one hand, mining and energy unions have significant structural power as they are sectors that contribute significantly to the country's gross domestic product and are controlled by large transnational and state capital (in the case of CODELCO). However, this is no guarantee of promoting negotiation processes

that lead to a just transition, underlining the importance of information and awareness-raising processes among workers on the impacts, effects and risks of changes in the energy and production matrix. On the other hand, the quote reflects that this cohesion and consolidation of structural power is undermined by workers' lack of identification with their workplace.

The willingness to change jobs, migrate and follow flexible career paths is characteristic of the logic of work in the mining and energy sectors, as these are highly profitable sectors with expansion into new projects and growth, and therefore have a constant demand for workers, which makes it difficult for workers with experience in the sector to conceive of unemployment as a real possibility.

Rather than contesting the technological changes that are likely to affect labour demand, the union leaders' concerns focus on broader structural problems. These problems relate to strengthening the state's capacity to respond to the challenge that climate change poses to society. They consider that the low levels of taxes paid by companies, even before they effectively reduce their wage bill through automation, are detrimental to the state's ability to provide the social support systems needed by workers and the general population. The points raised echo those in the document titled 'The role of copper and lithium in Chile's transformation into a leader in green mining. Is the transition to sustainable mining possible?' (Calderón Galaz, 2021)

As discussed above, this indicates that there is some interest from extractive industries union leaders in a new development model such as that proposed by the Just Socio-ecological Transition Strategy.

However, at the level of collective bargaining and in their relationship with companies, trade unions face serious difficulties and weaknesses in establishing an agenda geared towards Just Transition, and they face many challenges among their own members in promoting a work agenda along these lines.

4.4.4 A campaign for better working conditions in the lithium sector?

In 2023 Chile began implementing a new Lithium Strategy (previously discussed in section 2.2). This strategy was based on recommendations made by the 2016 lithium commission carried out under the Bachelet government (2014-2018) and published in the Lithium: A source of energy and an opportunity for Chile in 2016 (Ministerio de Mineria, 2016). The new lithium strategy aims to ensure a much higher level of state involvement in lithium extraction and production, better governance of the sector to ensure improved environmental and social sustainability and increased added value manufacturing processes downstream.

Perhaps the most significant aspect of the planned changes is that state owned companies ENAMI and CODELCO will be directly involved in production, with the private sector participating as a strategic partner. State-owned mining company CODELCO) will have a majority stake in one of the two companies currently extracting lithium (SQM).

As a result, there is the possibility that SQM workers will become part of a publicly owned company, the State-owned copper mining company CODELCO. is where Workers here have significant strategic power and amongst the best working conditions in Chile in terms of contractual stability, pay and benefits.

That same year Bachelet published the results of lithium commission the Lithium for Chile Movement, was formed by labour organisations and other civil society groups, to campaign for the implementation of the Commission's recommendations.

However, despite this vocal support from labour organisation when the strategy itself was being developed neither sectoral representative organisation nor company level unions were formally consulted despite the implications for workers. Nor were the implications of the strategy been communicated to workers directly following publication. Further, the likely changes to working conditions seem to be a byproduct of the new strategy rather than a strategic aim as these are not explicitly discussed anywhere in the document.

If consultation with sectoral representatives had taken place labour actors would have petitioned better support for to support women with children in addition to better pay and more opportunities for continued professional development.

Interviewees noted that the Chilean educational system is currently focused on developing workers suited to copper production rather than for the much smaller lithium industry and so almost all of the necessary expertise is gained informally on-the-job rather than through formally certified training schemes.

There was also some disappointment from some trade union federations that the changes did not go further as many actors would have preferred full rather than partial nationalisation of the industry and reduced participation by the highly corrupt and exploitative SQM[14] rather than the consolidation of their position in the sector via contract extension.

14 In 2017 SQM was fined $15 million for bribing Chilean politicians and it has also been sanctioned by the supreme court for failure to respect workers rights to collective bargaining (United States Department of Justice, 2017)

5. Conclusions

Chile is positioning itself as a climate leader within Latin America. Since 2020 it has been enacting a rapid phase out of coal fired power generation, aiming to reduce its share by 65 percent by 2025 and 100 percent by 2040.

This agenda has significant precedent and, to date, has been supported by both sides of the political spectrum. Chile's proclivity to leadership on climate policy within Latin America stems from its physical geography, and the country's historic openness to foreign direct investment.

Chile possesses few fossil fuel resources so in recent decades has had to rely on imported energy, exposing the country's economy to price fluctuations and energy scarcity. However, it also has a competitive advantage in renewable energy, as high levels of solar radiation in relatively "empty" desert areas and a long coastline which catches significant wind offer the potential for low-cost energy generation.

Following the return to democracy in 1990, until Boric took power in early 2022, a stable neoliberal policy consensus has existed under both centre-left- and right-wing governments. A large number of free trade agreements contribute to high levels of foreign direct investment in the country's energy market, meaning the energy transition has offered significant profit opportunities to multinational energy companies as well as mining companies interested in cutting production costs via access to cheaper energy in addition to the environmental benefits of decarbonisation.

This tendency, supported by active and strategic campaigning by ENGOs, underpins the cross-party popularity of renewable energy and the lack of opposition to decarbonisation from right-wing business elites.

The election of Gabriel Boric on a pro-environmental platform following a period of social unrest has accelerated the country's decarbonisation trajectory. Boric's government has enacted significant pro-environmental reforms which strengthen the country's legal mandate to address both climate change and related environmental issues such biodiversity loss, over extraction of water resources and localised environmental pollution as well as offering increased protection to environmental defenders via the ratification of the Latin America wide Escazu Agreement.

The government has also published and begun implementing a new lithium strategy which partly nationalises the sector, improves the institutional status and governance of the salt flats where lithium is located, and intends to develop value added products rather than exporting the product in a completely unrefined form. Whilst not explicitly framed as a Just Transition initiative, state involvement has the potential to improve outcomes for workers, indigenous communities and biodiversity and so can be construed as such.

Chile's approach to formal Just Transition planning and policy development is effectively top down and state led, despite numerous dialogue tables and an explicit and vocal commitment to participatory governance procedures. The Boric government, which has a close relationship with ENGOs, has enfolded broader socio-environmental concerns that have higher local salience than climate change

into the concept of what it now calls "Just Socio-Ecological Transition". In practice this means that following extensive consultation with a series of 'expert stakeholders' from civil society the Just Energy Transition Strategy has become the Just Socio-Ecological Transition Strategy (ENTSEJ) which has a much broader scope and transformative vision than the former document.

In addition to reducing carbon emissions via coalfired power station closures, the Just Socio-Ecological Transition Strategy addresses environmental health problems in the country's sacrifice zones. Whilst these issues were also given consideration in the earlier strategy their importance has expanded in the latter. In the short to medium term the intention is to address these problems with Just Transition Plans which mandate a series of interventions aimed at reducing ongoing pollution, improving population access to health services, remediating contaminated land, supporting coalfired power workers and those who were employed by other industrial production facilities which may also have been closed into new forms of employment. (Although exactly what form this support will take is currently unclear.) In the longer term the ENTSEJ aims to reorientate the country's economic model away from extractive activities and towards a more diversified, less ecologically damaging production base.

As a result of this intention to enact a Just Transition which addresses wider socio-environmental ills and helps shift the country away from an extractive model of development, the labour market interventions needed to support ex-coalfired power workers have slid down the agenda and are only receiving limited financial resourcing and attention by the government. As such, both CUT and coal fired power unions are critical of how Just Transition is being handled despite the positive transformative vision contained within the ENTSEJ.

CUT actors highlight how the government's close ties to the country's ENGOs means that the social cost of closing polluting industries is given limited attention, and the rushed closure process does not enable polluting industries to be held properly accountable for the historic damages they have caused. They highlight how the weakness of the Chilean state is allowing corporations to use the green transition as a means of extracting greater profits by worsening working conditions for workers.

In response CUT proposes a transformative Just Transition in which energy is decommodified and polluters (i.e. large energy corporations) made to pay the cost of transitioning to a greener economy. Coal fired power union representatives and workers stress similar issues in more concrete but narrower terms which highlight the detrimental impact of coalfired power station closure of working condition for affected workers.

Representatives from the coal fired power sector highlighted the inability or willingness of government representatives to require the energy companies to meaningfully support workers into new roles. These, to date, disappointing outcomes mean that, as in many other contexts, labour actors representing fossil fuel workers, expressed concerns about the speed of the transition process. However, its necessity was not contested as the country's environmental fragility in terms of a propensity towards forest fires, drought and water scarcities was recognised.

In national level Just Transition debates and climate change policy forums wider union voices are all but absent. Due to the historic destruction of labour power during the Pinochet years the labour movement and grassroots (company level) unions in particular have limited capacity to respond to the challenge of climate in an organised manner. This is an effect of Pinochet era labour legislation, primarily the Labour Code. The Labour Code weakened collective bargaining by promoting inter-union competition within companies, undermined the right to strike by allowing employers to hire replacement workers, limited union organising beyond the company level etc.

The highly deregulated labour market in Chile means that most of unions' energy is absorbed by trying to address issues of subcontracting, inadequate access to basic services such as healthcare, reasonable working hours and pensions rather than wider social issues. The small, ephemeral, depoliticised nature of most unions compounds difficulties. As a result, based on the information gathered in the interviews we have conducted, climate change and Just Transition is not a live issue at the grassroots, except in unions directly affected by the closure of the coalfired power stations.

A coherent unified response from the Chilean labour movement is also limited by the fraught relations between CUT and some company level unions and well as the divisions between unions operating within the same companies. CUT's strong links to

the Communist and Socialist Parties which were part of the government coalition under Bachelet means the organisation is perceived by some to be highly partisan and incapable of representing workers interests, particularly if this involves direct confrontation with left-wing governments in power.

Although actors from CUT stated that they felt the organisation had very limited possibilities to influence government policy around Just Transition and climate change, there have been a number of notable successes. The wording of Law 19.300 (The Climate Change Law) which contains articles intended to regulate the green transition was amended to give labour and work greater, although still very limited, visibility within the policy making process.

Equally, despite an extremely high levels of frustration with both government and management a coal fired power union has negotiated Just Transition related collective bargaining clauses which go some way towards protecting the pay and conditions of those affected by the closures. The agreements negotiated include a pension boost for older workers, access to training courses on renewable energy, the maintenance of pre-existing terms and conditions for workers who were transitioning into less well renumerated branches of the company or who were staying on at a station which had been sold to new owners as part of the decarbonisation process.

Some of the frustration with the Just Transition processes from coal fired power workers and union representative related to issues of procedural justice in that the timelines for closure were extremely unstable and workers were not kept adequately informed of changes and there was significant uncertainty around what protective measures would be agreed by the company. The ad hoc approach to policy making and lack of sectoral level policy is also problematic as it means that across different sites outcomes are contingent on the negotiation skills of individual union leaderships.

However, it is important to note that this process has been very fast paced, and that the incorporation of elements suggested by the unions during the participatory processes may become part of future Just Socio-Ecological Transition Strategy. For example, the latest document, published in October 2024 includes a focus on the generation of instruments that integrate labour restructuring and quality jobs, especially at the local level, based on the principle of decent work.

It will be important to **monitor and evaluate** how these plans are being implemented, as well as the **levels of impact generated** by the coal plant unions, since this is where pilot or experimental experiences for a larger-scale transition in the country will likely be identified.

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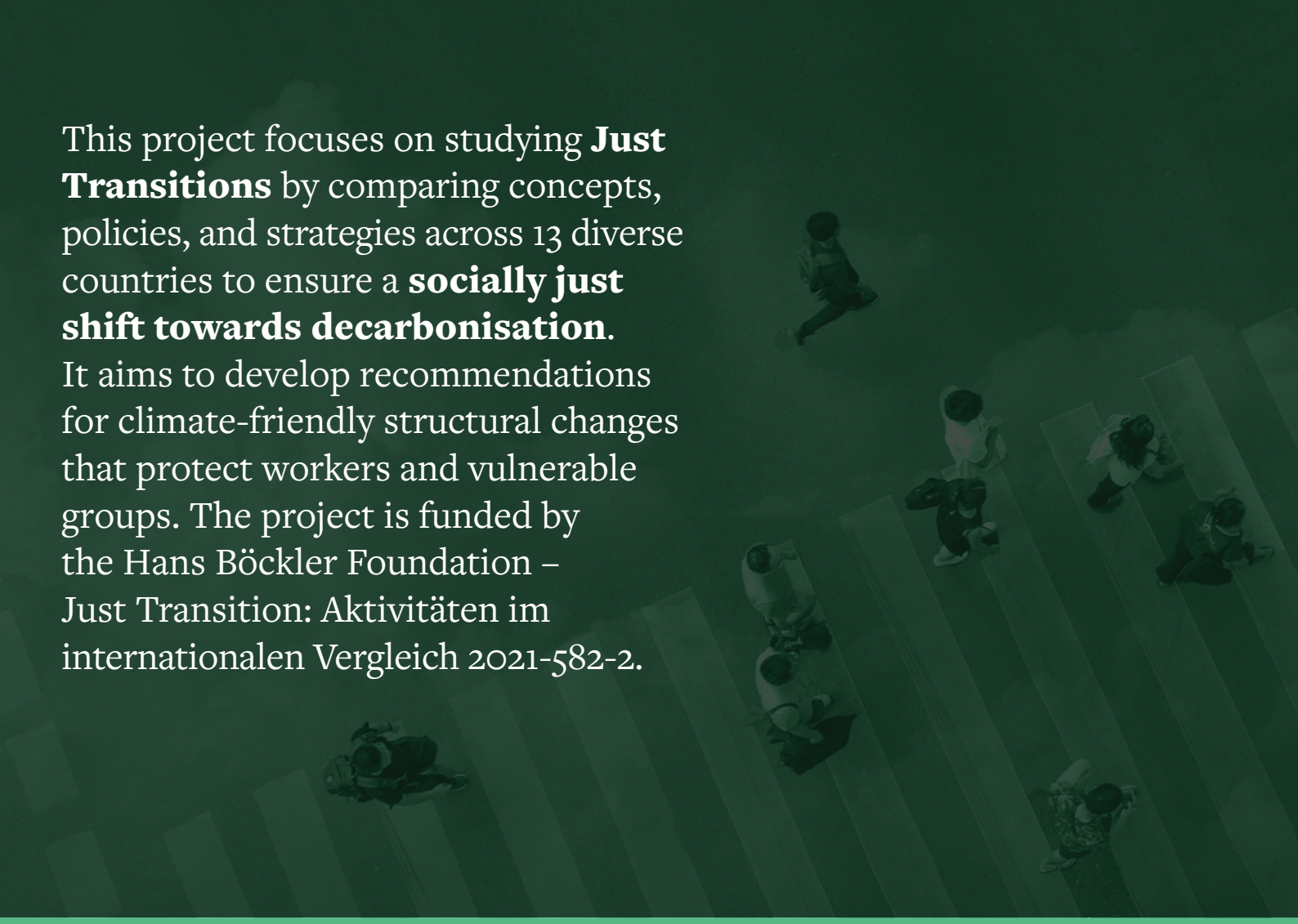
This project focuses on studying **Just Transitions** by comparing concepts, policies, and strategies across 13 diverse countries to ensure a **socially just shift towards decarbonisation**. It aims to develop recommendations for climate-friendly structural changes that protect workers and vulnerable groups. The project is funded by the Hans Böckler Foundation – Just Transition: Aktivitäten im internationalen Vergleich 2021-582-2.



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