

# **Undoing disaster colonialism: A pilot map of the pandemic's first wave in the Mapuche territories of Southern Chile**

Valentina Carraro

Sarah Kelly

José Luis Vargas

Patricio Melillanca

José Miguel Valdés-Negróni

**This is a postprint that has been peer reviewed and accepted at *Disaster Prevention and Management*.**

Please cite as:

Carraro, V., Kelly, S., Vargas, J.L., Melillanca, P. and Valdés-Negróni, J.M. (2021), "Undoing disaster colonialism: a pilot map of the pandemic's first wave in the Mapuche territories of Southern Chile", *Disaster Prevention and Management: An International Journal*, Vol. ahead-of-print No. ahead-of-print, available at: <https://doi.org/10.1108/DPM-03-2021-0106>.

# **Undoing disaster colonialism: A pilot map of the pandemic's first wave in the Mapuche territories of Southern Chile**

## **ABSTRACT**

**Purpose** — Research on the effects of the pandemic on the Mapuche and their territories is lacking; the few existing studies focus on death and infection rates but overlook how the pandemic interacts with ongoing processes of extractivism, state violence and community resistance. Our pilot study addresses this gap through a map developed collaboratively by early career researchers and Mapuche journalists.

**Design/methodology/approach** — We use media research and crowdsourced mapping to document how the first wave of the Covid-19 pandemic (April-August 2020) affected the Mapuche, focusing on seven categories of events: territorial control, spiritual defence, food sovereignty, traditional health practices, political violence, territorial needs and solidarity, and extractivist expansion.

**Findings** — The map provides a spatial and chronological overview of this period, highlighting the interconnections between the pandemic and colonialism. As examples, we focus on two phenomena: the creation of 'health barriers' to ensure local territorial control, and the state-supported expansion of extractive industries during the first months of the lockdown.

**Research limitations/implications** — We intersperse our account of the project with reflections on its limitations and, specifically, on how colonial formations shape the research. Decolonising disaster studies and disaster risk reduction practice, we argue, is an ongoing process, bound to be flawed and incomplete but nevertheless an urgent pursuit.

**Originality/value** — In making this argument, the paper responds to the *Disaster Studies Manifesto* that inspires this special issue, taking up its invitation to scholars to be more reflexive about their research practice and to frame their investigations through grounded perspectives.

## Introduction

This paper presents the preliminary results of a collaboration between the Mapuche news collective Mapuexpress<sup>1</sup> and a group of disaster studies early-career researchers. Our pilot project used media research and crowdsourced mapping to consider the impact of the Covid-19 pandemic on the Indigenous Mapuche territories of Wallmapu. We embarked on this research because we realised that state institutions, mainstream media and academic studies largely overlooked the experiences of Indigenous people in Chile. We move from the premise that, like all disasters, the pandemic is rooted in societal history and informed by longstanding socioenvironmental processes. While global in its scope, its effects vary from place to place; even within the same locality, not everyone is affected to the same degree, with people from lower-income groups and racialised minorities being significantly more likely to contract, and die of, the virus (Hernández-Vásquez et al., 2020). Meanwhile, disaggregated data for Indigenous communities is scarce (Nagle et al., 2020), and in the case of Chile, entirely lacking (Cuyul, 2020). Early estimates based on infection rates in municipalities with a high percentage of Mapuche residents point to high incidence, especially in urban communities (Observatorio Ciudadano, 2020). Mapuche leaders, scholars and journalists also underscore the pandemic's socioeconomic consequences, such as the disruption of traditional social and religious practices, additional economic hardships and social isolation (CIIR, 2020). Finally, there are the specific challenges connected to the political conflict in the Mapuche territories of Wallmapu, i.e., the Mapuche struggle to gain territorial and political autonomy, recover control of their ancestral land and protect their culture and customs. Examples of these challenges are the constraints on community organising

---

<sup>1</sup> Mapuexpress is an online collective of independent primarily Mapuche journalists from throughout Chile. The two coauthors from Mapuexpress are based in Temuco and Chiloe Island in the Wallmapu (southern Chile). It is widely regarded as the go-to Mapuche news source throughout Chile and among activist and scholars internationally.

posed by the pandemic, or the health risks to which Mapuche political prisoners are exposed (Mapuexpress, 2020a).

The Mapuche have their own ways of understanding sacionatural disasters, which inform collective responses to these events. These understandings have roots in Mapuche history and cosmovision, and are also informed by current political commitments. However, most accounts of the pandemic produced by research institutions, which are often connected to the Chilean state, completely disregard Mapuche knowledge.<sup>2</sup> This follows an institutional trend to overlook Mapuche knowledge in important arenas, such as the environmental impact assessment process for extractive industry projects (Kelly, 2019).

International agreements for sustainable development and disaster risk reduction now explicitly recognise the importance of Indigenous knowledge, advocating its integration into national policy and programmes (Lambert and Scott, 2019). Meanwhile, many activists and scholars (Martin and Mirraboopa, 2003; Tuhiwai-Smith, 2012; Zavala, 2013) push for a shift from the *inclusion* of Indigenous knowledge towards work that centres on the problems, needs and desires of Indigenous people, arguing that Indigenous-led projects hold much promise for the decolonisation of research. However, as the *Disaster Studies Manifesto* that inspires this special issue decries, this is seldom done. From their position of insiders-outsiders, early career researchers can and should try to change this. Our experience illustrates both the difficulties and importance of this work. We argue that, while no research can fully extricate itself from colonial relations, projects led by Indigenous people play an important role in the decolonisation of disaster studies. In our case, centering Mapuche understandings has shifted the research focus from infection and death rates to the broader phenomena associated with the pandemic in Wallmapu, such as the emergence of solidarity networks,

---

<sup>2</sup> See CIIR 2020; Observatorio Ciudadano 2020; and Mapuexpress.org for noteworthy exceptions.

the instrumentalisation of lockdowns for political repression, or the increase in development of extractive industries at the cost of workers' health.

Beyond this introduction, the article has four sections. We start by framing our research through a discussion of the links between disaster studies and colonialism. Next, we describe the methodology used for the mapping. We then discuss the preliminary results, highlighting the interplay between the pandemic and colonialism through two examples: the creation of community-managed roadblocks (territorial control) to limit the spread of the virus, and the state-supported expansion of extractive industries during the first months of lockdown. Each of these sections is punctuated by a brief reflection on the project's limitations and, more specifically, on how colonial formations shape our research. In the conclusion, we summarise our argument, emphasising that the decolonisation of disaster studies is an ongoing project.

### **From Inclusion to Decolonisation**

The Disaster Studies Manifesto (2019) starts by denouncing the extent to which outsider scholars and institutions dictate research frameworks, methodologies, funding availability and the definition of 'success' in contemporary disaster studies. As a result, continue the signatories, disaster research too often overlooks 'local realities', and normalises hierarchical, neo-colonial<sup>3</sup> relationships whereby 'external "experts" [take] the lead (and the credit) for researching [local] "vulnerable" "others"'. We wholeheartedly agree with these observations and share the authors' commitment to 'decolonising' disaster research, that is, to advance research practices that oppose colonialism and centre local and indigenous ways of knowing. Indeed, the project we present here has been designed with the same

---

<sup>3</sup> The Disaster Studies Manifesto characterises disaster research as 'neo-colonial', a term that refers to the use of so-called soft power (e.g. economic pressure, cultural imperialism, conditional aid or, indeed, academic funding) to control a formally independent country or nation. This is in juxtaposition to 'traditional' colonialism, where control is achieved through military force, as it is the case in Wallmapu. Given this context, when talking about processes affecting the Mapuche, we prefer here the adjective 'colonial'.

concerns and aspirations in mind. At the same time, we would like to deepen their critique by reflecting on the suggested relation between disaster studies and colonialism.

The 'local realities' sidelined in disaster research are heterogenous and dynamic, but, in Indigenous territories such as Wallmapu, tend to be marked by colonial relations and extractive economic development. Decades of postcolonial studies and decolonial theory have taught us that colonialism and knowledge-production are inextricably connected: by remaining silent about these phenomena, disaster research naturalises and facilitates them. Despite the undeniable progress made in the past forty years, disaster studies scholars continue to privilege 'Western' ways of knowing over indigenous epistemologies, relegating local researchers to marginal roles and framing disasters as technical issues (Gaillard, 2019). This way of 'doing' disaster studies constitutes a form of what Veland et al. call 'procedural vulnerability' (2013), i.e. an approach to research that increases the propensity to harm. Rivera's proposed notion of 'disaster colonialism' (2020, p. 4) addresses this same point, referring to 'the specific procedural mechanisms used to leverage disasters for the purposes of deepening colonisation and coloniality'. To be sure, critical scholars have long recognised the links between colonialism and disaster risk (Escobar, 1998; Middleton and O'Keefe, 1998). But while most contributions focus on the production of vulnerability through colonialism, Rivera (2020) aptly shows that the relation is two-way: disaster research and policies reinforce colonial formations, which in turn increase vulnerability. The shortcomings of Disaster Studies that are highlighted by the manifesto, then, reproduce colonial relations not only between external and local researchers but, indirectly, in society at large.

This brings us to the importance of partnerships with, and leadership by, local researchers, which we see as a meaningful but potentially fraught pathway towards the 'decolonisation' of disaster studies. A short empirical piece is not the place to discuss the usefulness of 'local' and 'external' as

juxtaposed categories, nor the implication that ‘local knowledge’ is inherently purer, as if untouched by power relations (Agrawal, 1995). Colonial discourses affect us all, and Indigenous identity does not guarantee truthfulness or righteousness. But when Indigenous people take the lead, there is a shift in the terms under which research is conducted: it is not about ‘us’ including ‘their perspective’ in ‘our’ research, but about redefining goals and priorities, reframing research problems and reconfiguring relations with affected communities (Tuhivai-Smith, 2012).

***Academia.** Indigenous-led and participatory research designs represent a welcome break from traditional approaches of the social sciences, disciplines that were directly implicated in colonialism. However, it would be naive to believe they can erase the hierarchical power relation between Indigenous groups and settler-colonial research institutions. These relations unfold at both the symbolic and material level: on the one hand, academic modes of knowing and thinking have greater legitimacy than Indigenous ones; on the other, the state remains the primary source of research funding. Thus, projects such as this one often find themselves caught between contradictory commitments: problematising the role academia plays in furthering disaster colonialism, while producing measurable ‘outputs’ that will allow us to continue our research. To balance these commitments, we have prioritised ways of disseminating the research that would reach Mapuche communities and a non-academic public, using publications in local media, a freely available report in Spanish, and an online event where academics and civil society actors discussed the project.*

## **Mapping the pandemic in Wallmapu**

Our project was developed with these ideas in mind, led by Mapuexpress and supported by early career researchers from CIGIDEN. Our team spans the local/external continuum, including Mapuche, Chilean and foreign researchers living in both Wallmapu and Santiago. Before the project started, Mapuexpress had several internal discussions about the opportunities and risks presented by this collaboration, echoing broader concerns about epistemic extractivism amongst Mapuche communities. An important factor in their decision to proceed was that one of the non-Mapuche authors has been working in Wallmapu since 2014, collaborating with one of the Mapuexpress journalists involved in the project. They both characterise their relationship as based on accountability, transparency and long-term commitment to the local territory. In addition, Mapuexpress organised a meeting with the academics participating in the project, to discuss goals, timeframes, funding sources and dissemination strategies. These decisions have been repeatedly revisited during the project, in an



ongoing conversation. Nevertheless, the initial meeting helped to define mutual expectations and shared principles.

We began the research by developing a typology of events and phenomena related to the pandemic, based on the experiences of the Mapuche researchers and on a review of news articles. This typology comprises seven categories: territorial control, spiritual defence, food sovereignty, ancestral health heritage, political violence, needs and territorial solidarity, and extractivist expansion.<sup>4</sup> These categories are clearly overlapping and interdependent, but nevertheless help to highlight trends triggered or intensified by the pandemic. For each category, we wrote out a brief definition and, working with a graphic designer, developed an icon, as shown in Figure 1. Second, using the application Canvis.app, we elaborated a georeferenced online survey to collect news through Mapuche community networks. The platform allows users to report events by clicking a place on the map, adding a brief description, a date and a source. The map-survey was disseminated through the Mapuexpress site, the CIGIDEN web page and social media, and press releases on national

---

<sup>4</sup> Translation from Spanish by authors.

independent news site such as *El Ciudadano* and *El Mostrador*. Between July and August 2020, we published the updated dataset once a week on the Mapuexpress website.



*Figure 1. Mapping categories and icons. Icon design by Sergio Iacobelli*

We hoped to involve Wallmapu residents in the data collection and, to this end, we planned to hold in-person workshops with the Mapuche communities to share our methodology with them and receive their feedback, but the escalation of the pandemic prevented us from carrying out these plans. Possibly due to limited internet connectivity among rural communities, participation has been low. To mitigate this problem, we reached out to community members using phone calls, Whatsapp and Facebook, gathering information that we then geolocated and added to our database. This process was aided by Mapuexpress' journalism model, which relies on the participation of community members in the creation, research and dissemination of news articles. Mapuexpress has termed this model 'werkenization of communication'. The werken is a figure of authority in Mapuche communities. The term is often translated as 'spokesperson', but the tasks of a werken also include strengthening community networks and building new connections across sectors. Mapuexpress

pursues this strategy with the aim of using their platforms to amplify Mapuche perspectives and strengthen ties across different community sectors and places (on this, see (Mapuexpress, 2020b)). The involvement of these community networks helps to soften the gatekeeping role traditionally performed by news media, while also helping to validate the information in the map.

The map (see Figure 2) documents forty-six events, concentrated in the regions of La Araucanía (20), Los Ríos (9) and Bío Bío (6). Of these, sixteen represent instances of political violence, including racist attacks on the Mapuche population by police or civilians, or news about the treatment of political prisoners. Eight map points correspond to the category of territorial control, often related to *barreras sanitarias*, i.e. community-organised roadblocks such as those discussed in the next section. The five points identified as episodes of extractive industry expansion referred to Mapuche opposition to real-estate projects, industrial fishing and energy generating plants, either already operating or under construction. Finally, the three map points labelled as instances of food sovereignty related to *ollas comunes*, i.e. community kitchens.

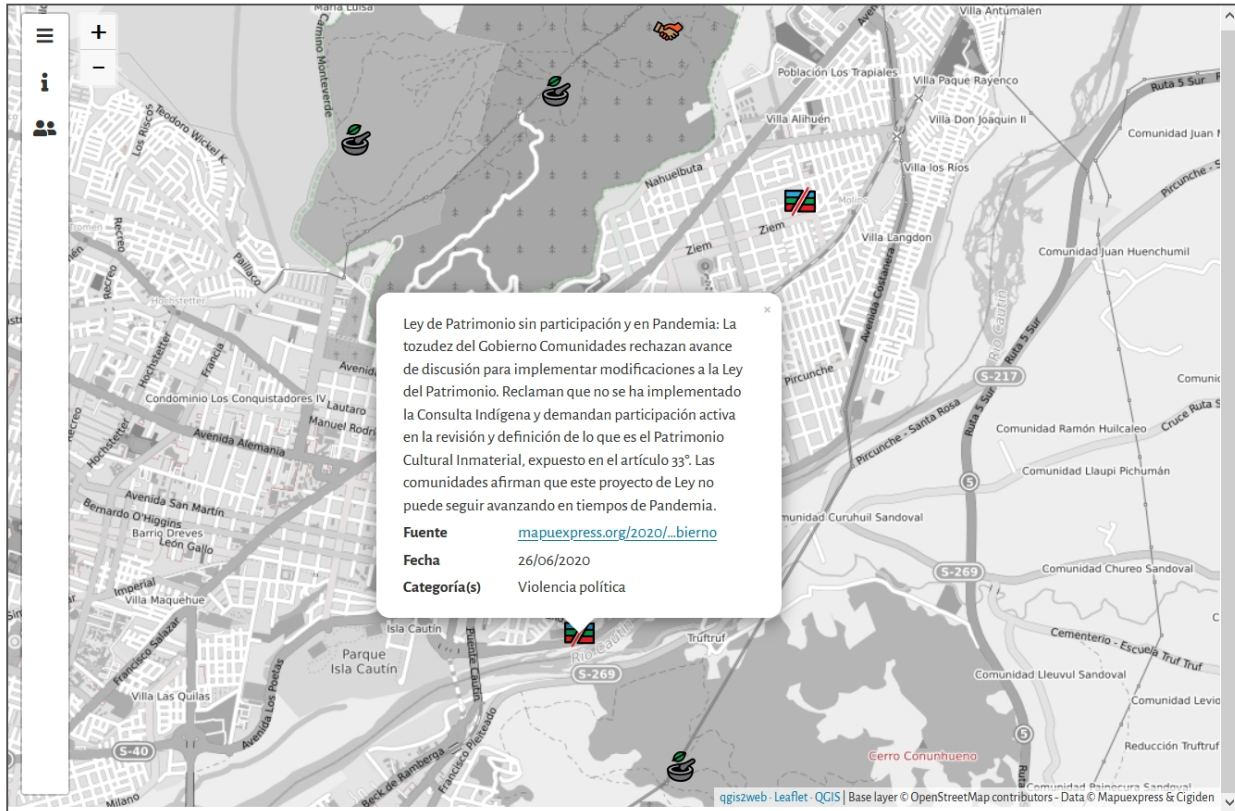


Figure 2. Map screenshot (source: [www.mapuexpress.org/coronavirus/](http://www.mapuexpress.org/coronavirus/))

***The Map.** We came up with the idea of making a map because we wanted to render visible the vulnerabilisation of rights at the hands of the state and extractive industries, as well as the resourcefulness of Mapuche communities. From previous experience, we knew maps had a special capacity to capture interest and persuade. We are also aware, however, of the historical ties between cartography and colonialism, and making this particular map involved several compromises with colonial modes of thought. For example, we wanted viewers to focus on and trust the information contained in the map, so we did not deviate from Western cartographic standards. Our map looks at Wallmapu 'from above', a perspective that is admittedly at odds with Mapuche ways of knowing. We also used the OpenStreetMap database for our baselayer, which in turn relies on (and thereby legitimates) the political and administrative boundaries imposed by the Chilean state (on OSM in contexts of colonialism see Carraro, 2021, chap. 5).*

## Disaster colonialism in the pandemic context

Given the limited space at our disposal, we would like to focus on two of the phenomena our map underscored, namely, Mapuche strategies of territorial control, and the protection and expansion of extractive industries. A full account of these complex processes is well beyond the scope of this article

(but see Mapuexpress *et al.*, 2020); our aim, instead, is to illustrate how our mapping illuminates the often-overlooked interrelations between colonialism and the pandemic.

### Mapuche Practices of Territorial Control

Between March and June 2020, to prevent the virus from spreading, Mapuche communities from Lafquenche territory (in the southern Bio Bio region) installed several *barreras sanitarias* around the municipality of Tirúa. They did so with the collaboration of non-Mapuche social actors, such as local churches, resident councils, education groups and worker unions. Only vehicles transporting essential goods, such as fuel and food, and essential services, such as ambulances and firefighters, could circulate. At each entry point, permitted vehicles underwent sanitization before being allowed to proceed. These grassroots initiatives also received the support of the municipality, which provided logistical support and teams of health workers to diagnose and treat potential infections. While the case of Tirúa stands out for the level of organization and longevity of the barriers, it is not unique: many Indigenous leaders and communities closed off their territories to protect them from the pandemic, with Isla Lemuy and the areas surrounding Lake Maihue being two further examples documented in the map.

It is important to situate the *barreras sanitarias* within the context of the Mapuche anti-colonial struggle and, more specifically, as part of a long-term strategy of territorial control (Pairican, 2019). Territorial control is a way to assert self-determination through territorial actions at the local scale, rather than waiting for recognition by the Chilean state. The roadblocks are, as the mayor of Tirúa put it, ‘a *sovereign* resolution by the organised community’ (quoted in Espinoza, 2020, emphasis by the authors). Thus, the *barreras sanitarias* are more than an emergency measure to contain the virus: by prioritising care for human life over the local economy, they represent a rejection of the capitalist model that structures Chile’s social life and environmental relations (for a comprehensive discussion

of territorial control during the pandemia see Tironi and Kelly, 2020). It is through this lens that we should also interpret the central government's opposition to the roadblock, expressed by the Ministry of Defence regional representative through his dismissal of the barriers as 'useless' (an assessment belied by the government's own data: after the first wave, in November 2020, the infection rate in Tirúa was less than half that of nearby municipalities such as Carahue y Cañete<sup>5</sup>). Incidentally, Indigenous communities in other parts of the world, notably Canada (Macyschon and Bogart, 2020), New Zealand (McLachlan, 2020) and the US (Marvel, 2020), have also chosen to protect themselves by limiting access to their territories.

### **Protection and expansion of extractive industries**

The restrictions on economic activities imposed to contain the virus have been highly uneven: while many livelihoods have been affected, especially those of people working informally or without a contract, large extractive industries, such as salmon farming and mines, have been allowed to work, despite being frequent infection hotspots (Cárdenas and Melillanca, 2021; Elorrieta *et al.*, 2020). In fact, according to the Observatorio Latinoamericano de Conflictos Ambientales (OLCA), the pandemic has driven an expansion of extractive activities. OLCA monitored the number of applications submitted to the Sistema de Evaluación de Impacto Ambiental (SEIA), the process through which regional authorities assess whether mid- to large-scale projects comply with environmental regulations (see Tecklin *et al.*, 2011 for a critical discussion of Chile's environmental legislation). OLCA observed a remarkable surge in SEIA applications: from 177 between March and July 2019, to 322 in the same months of 2020. The most obvious increment was in the energy sector,

---

<sup>5</sup> As of November 2020, according the data from the health ministry (<https://github.com/MinCiencia/Datos-COVID19>), the incidence of Covid-19 was of 2417 cases every 100,000 residents in Carahue, 2183 in Cañete, 898.4 in Tirúa.

where the number of applications increased four-fold. What is more, investments more than doubled: from 10,784 to 21,643 million USD.

The drive to expand is in the nature of extractivist capitalism (Svampa, 2019), but this sudden surge has no economic justification: instead, it is a blatant attempt to exploit SEIA's institutional weaknesses during the pandemic, and the restrictions on people's rights to travel, gather and protest. For their part, the ruling elites, already under pressure after the 2019 social uprising, are keen to support extractivist expansion. In June 2020, the government and the opposition parties signed a 'Covid agreement' to protect and reactivate the economy. In addition to tax incentives for investors, the agreement foresees more flexible regulations and shorter timeframes for the approval of projects through the SEIA (Cámara Nacional de Comercio, 2020). Thus, the government response to the pandemic has exposed and exacerbated the weaknesses of an environmental governance system that prioritises the interests of investors over the protection of residents and ecosystems, harming Mapuche livelihoods and traditional practices via deforestation and water diversion.

Similar incidents have been reported in Brazil, Colombia, the Democratic Republic of Congo and Canada, among other places (Forest Peoples Programme, 2021), as governments take advantage of the pandemic to relax regulations and push through problematic policies. Granted, these developments bring benefits to *some* Indigenous people, contributing to their livelihoods and reducing social marginalisation (O'Faircheallaigh, 2013). Such short-term gains, however, tend to be offset by the high costs paid by communities in the form of environmental destruction, health damage, erosion of traditional governance networks and forced displacement (Whitmore, 2012). We thus regard the expansion of extractive industries as an example of the pandemic's disproportionate impact on Indigenous communities.

***Language.** While our project seeks to centre Mapuche ways of knowing, this article is written in ‘academic English’ (as are 80% of peer-review publications, according to Huttner-Koros, 2015). In the writing process, we considered experimenting with language, for example by mixing language styles or inserting expressions in Mapudungun, the Mapuche language. We decided against it, in part, for the sake of straightforwardness: this text is already the result of multiple translations between English and Spanish (the language spoken, to different degrees, by all authors). We also saw a risk of tokenisation, especially given that, as journalists working in Spanish, the Mapuche researchers in our group are more than accustomed to expressing themselves in formal written language. On the other hand, defaulting to academic English upholds a standard that excludes many readers and potential contributors.*

## **Conclusion**

The aim of this paper was to reflect on the preliminary results of a collaborative mapping project on the effects of the pandemic in Wallmapu. The project centres on Mapuche priorities and concerns and, by doing so, underscores the links between the pandemic and colonialism. Here, we have discussed two examples of these links: the strategies of territorial control adopted by Mapuche communities, and the state-supported expansion of extractive industries. Through this focus, the map we produced complements and problematises the numerous cartographic visualisations related to the pandemic, which typically represent quantitative data about the spread of the virus in a decontextualised and often misleading manner (Mooney and Juhász, 2020). Overall, drawing on our experience, we argue that Indigenous-led research can support the transformation of disaster studies advocated for in the Disaster Studies Manifesto and, more broadly, contribute to decolonising the field.

We also hope this type of work will stimulate conversations about the interconnections between disasters, colonialism and academic practice amongst scholars, practitioners and the broader public<sup>6</sup>. The analysis of these links is an important addition to studies of the pandemic, not only for Mapuche communities but for everyone who is harmed by the current model of economic development. In a time of socioenvironmental crisis such as the one we live in, Mapuche knowledge

---

<sup>6</sup> It is also in this spirit that, in December 2020 we organised a public event where academics and Mapuche community leaders were invited to comment on the project (CIGIDEN, 2020)



can enrich our understandings of the world beyond the natural or social sciences, and help us to formulate alternative ways to respond to current events. ‘Decolonising disaster studies’ is clearly an ongoing process, bound up with decolonisation at large. It is thus necessarily incomplete, as evidenced by our project and its many compromises with colonial formations, at the institutional (academia), methodological (standard cartography) and discursive level (academic English). We hope that these reflections will help other scholars committed to this project in the design of their research.

### **Acknowledgements**

We are grateful to Manuel Tironi, the CIGIDEN communication team and the Mapuexpress collective for supporting the research. Sergio Iacobelli designed the icons for the map. We thank JC Gallard and the editors of this special issue, and the two anonymous peer-reviewers for their guidance and constructive feedback. The paper was greatly improved by the exchanges with the other contributors to this special issue. The National Fund for Scientific and Technological Development supported the work of V.C. (ANID/FONDECYT/3201027) and S.K. (ANID/FONDECYT/3198067). The work of J.M.V.N. was made possible by a scholarship for the program in Master Governance of Risk and Resources of the Heidelberg Center for Latin America (HCLA), and by the project ANID/FONDECYT/11180970, led by Dra. Johanna Höhl. He also thanks the Laboratorio de Análisis Territorial (LAT) of the University of Chile.

### **References**

Agrawal, A. (1995), “Dismantling the Divide Between Indigenous and Scientific Knowledge”, *Development and Change*, Vol. 26 No. 3, pp. 413–439.

- Cárdenas, J.C. and Melillanca, P. (2021), “Codicia salmonera y complicidad gubernamental impulsan récord nacional de casos positivos al Covid-19 en Chiloé”, *Observatorio Latinoamericano de Conflictos Ambientales*, 2 February, available at: <http://olca.cl/articulo/nota.php?id=108365> (accessed 11 March 2021).
- Carraro, V. (2021), *Jerusalem Online: Critical Cartography for the Digital Age*, Palgrave Macmillan, Singapore, available at: <https://doi.org/10.1007/978-981-16-3314-0>.
- CIGIDEN. (2020), “Conversatorio Mapuexpress - CIGIDEN: ‘Lanzamiento informe Mapeando el coronavirus en el Wallmapu’”, *CIGIDEN*, 1 December, available at: <https://www.cigiden.cl/conversatorio-mapuexpress-cigiden-lanzamiento-informe-mapeando-el-coronavirus-en-el-wallmapu/> (accessed 29 March 2021).
- CIIR. (2020), *Los efectos socioeconómicos y culturales de la pandemia Covid-19 y del aislamiento social, preventivo y obligatorio en los Pueblos Indígenas Y Afrodescendiente en Chile*, Policy Paper No. 9, Centro de Estudios Interculturales e Indígenas, p. 19.
- Cuyul, A. (2020), “Las pandemias y el pueblo mapuche – Palabra Pública”, *Palabra Pública - Universidad de Chile*, 1 June, available at: <http://palabrapublica.uchile.cl/2020/06/01/las-pandemias-y-el-pueblo-mapuche/> (accessed 12 November 2020).
- Disaster Studies Manifesto. (2019), “Petition Power, Prestige & Forgotten Values: A Disaster Studies Manifesto”, available at: <https://www.ipetitions.com/petition/power-prestige-forgotten-values-a-disaster> (accessed 16 November 2020).
- Elorrieta, F., Muñoz, A., Maripangui, C., Vargas, C., Icaza, G., Guerrero, C., Crespo, F., *et al.* (2020), “El preocupante nivel de contagio en las comunas mineras”, *CIPER Chile*, 24 July, available at: <https://www.ciperchile.cl/2020/07/24/el-preocupante-nivel-de-contagio-en-las-comunas-mineras/> (accessed 11 March 2021).
- Escobar, A. (1998), *La invención del Tercer Mundo: construcción y deconstrucción del desarrollo*, Editorial Norma.

- Espinoza, C. (2020), “La fórmula de Tirúa para controlar la pandemia del coronavirus”, *The Clinic*, 29 April, available at: <https://www.theclinic.cl/2020/04/29/la-formula-de-tirua-para-controlar-la-pandemia-del-coronavirus/> (accessed 1 December 2020).
- Forest Peoples Programme. (2021), “Rolling back social and environmental safeguards in the time of COVID-19”, Middlesex University, Forest Peoples Programme, Lowenstein International Human Rights Clinic, February, available at: <https://www.forestpeoples.org/en/rolling-back-safeguards/global> (accessed 24 June 2021).
- Gaillard, J. (2019), “Disaster studies inside out”, *Disasters*, Vol. 43 No. S1, available at: <https://doi.org/10.1111/disa.12323>.
- Hernández-Vásquez, A., Gamboa-Unsihuay, J.E., Vargas-Fernández, R. and Azañedo, D. (2020), “Excess mortality in Metropolitan Lima during the COVID-19 pandemic: A district level comparison”, *Medwave*, Medwave, Vol. 20 No. 08, available at: <https://doi.org/10.5867/medwave.2020.08.8032>.
- Huttner-Koros, A. (2015), “Why Science’s Universal Language Is a Problem for Research”, *The Atlantic*, 21 August, available at: <https://www.theatlantic.com/science/archive/2015/08/english-universal-language-science-research/400919/> (accessed 11 March 2021).
- Kelly, S. (2019), “Megawatts mask impacts: Small hydropower and knowledge politics in the Puelwillimapu, Southern Chile”, *Energy Research & Social Science*, Vol. 54, pp. 224–235.
- Macyshon, J. and Bogart, N. (2020), “Indigenous communities close their borders in hopes of preventing COVID-19 spread”, *CTV News*, 21 March, available at: <https://www.ctvnews.ca/health/coronavirus/indigenous-communities-close-their-borders-in-hopes-of-preventing-covid-19-spread-1.4863166> (accessed 21 June 2021).

- Mapuexpress. (2020a), “Editorial Mapuexpress: Resistencia Mapuche en tiempos de Pandemia”, *Mapuexpress*, 17 July, available at: <https://www.mapuexpress.org/2020/07/17/editorial-mapuexpress-resistencia-mapuche-en-tiempos-de-pandemia/> (accessed 12 November 2020).
- Mapuexpress. (2020b), “20 años de Mapuexpress: Hacia la ‘Werkenización’ de las Comunicaciones”, *Mapuexpress*, 16 September, available at: <https://www.mapuexpress.org/2020/09/16/20-anos-de-mapuexpress-hacia-la-werkenizacion-de-las-comunicaciones/> (accessed 24 June 2021).
- Mapuexpress, CIGIDEN, Kelly, S., Valdés Negroni, J., Carraro, V., Vargas, J.L. and Melillanca, P. (2020), *Descolonizando La Pandemia En Territorio Mapuche: Mapeando Coronavirus En El Wallmapu*, Mapuexpress & CIGIDEN, available at: [https://www.researchgate.net/publication/347455119\\_Descolonizando\\_la\\_Pandemia\\_en\\_Territorio\\_Mapuche\\_Mapeando\\_Coronavirus\\_en\\_el\\_Wallmapu](https://www.researchgate.net/publication/347455119_Descolonizando_la_Pandemia_en_Territorio_Mapuche_Mapeando_Coronavirus_en_el_Wallmapu).
- Martin, K. and Mirraboopa, B. (2003), “Ways of knowing, being and doing: A theoretical framework and methods for indigenous and indigenist re-search”, *Journal of Australian Studies*, Routledge, Vol. 27 No. 76, pp. 203–214.
- Marvel, S. (2020), “Sturgis rallygoers steer clear of South Dakota tribal health checkpoints, so far, official says”, *The Globe*, 4 August, available at: <https://www.dglobe.com/newsmd/coronavirus/6607637-Sturgis-rallygoers-steer-clear-of-South-Dakota-tribal-health-checkpoints-so-far-official-says> (accessed 25 June 2021).
- McLachlan, L.-M. (2020), “Covid-19: More iwi checkpoints to be set up in Taranaki for alert level 3”, RNZ, 24 April, available at: <https://www.rnz.co.nz/news/te-manu-korihi/415039/covid-19-more-iwi-checkpoints-to-be-set-up-in-taranaki-for-alert-level-3> (accessed 21 June 2021).
- Middleton, N. and O’Keefe, P. (1998), *Disaster and Development: The Politics of Humanitarian Aid*, Pluto Press in assoc. with ETC, London.

- Mooney, P. and Juhász, L. (2020), “Mapping COVID-19: How web-based maps contribute to the infodemic”, *Dialogues in Human Geography*, SAGE Publications, Vol. 10 No. 2, available at:<https://doi.org/10.1177/2043820620934926>.
- Nagle, R., Perez, E. and Peters, P. (2020), “Settler Colonialism and Covid-19: Speaker Series Part I”, Panel Discussion, Dartmouth Consortium of Studies in Race, Migration, and Sexuality, 1 July.
- Observatorio Ciudadano. (2020), “Emergencia sanitaria en el contexto de la pandemia por COVID-19 en Chile y su impacto en los derechos de los pueblos originarios.”, Comunidad Indígena Yagán de Bahía de Mejillones, Consejo de Pueblos Atacameños, Mesa de Coordinación de Pueblos Originarios del Budi, Municipalidad de Saavedra, Observatorio Ciudadano, Plataforma Política Mapuche, June, available at: <https://observatorio.cl/wp-content/uploads/2020/06/emergencia-sanitaria-en-el-contexto-de-la-pandemia-por-covid-19-en-chile-y-su-impacto-en-los-derechos-de-los-pueblos-originarios-11.pdf> (accessed 16 November 2020).
- O’Faircheallaigh, C. (2013), “Extractive industries and Indigenous peoples: A changing dynamic?”, *Journal of Rural Studies*, Vol. 30, pp. 20–30.
- Pairican, F. (2019), “Estado plurinacional: el debate mapuche actual – CIPER Chile”, *CIPER Académico*, 20 December, available at: <https://www.ciperchile.cl/2019/12/20/estado-plurinacional-el-debate-mapuche-actual/> (accessed 11 November 2020).
- Rivera, D.Z. (2020), “Disaster Colonialism: A Commentary on Disasters beyond Singular Events to Structural Violence”, *International Journal of Urban and Regional Research*, Vol. n/a No. n/a, available at:<https://doi.org/10.1111/1468-2427.12950>.
- Svampa, M. (2019), “Neoextractivismo y desarrollo”, *Las fronteras del neoextractivismo en América Latina*, Bielefeld University Press, transcript, available at:

- <https://www.degruyter.com/document/doi/10.14361/9783839445266/html> (accessed 11 March 2021).
- Tecklin, D., Bauer, C. and Prieto, M. (2011), “Making environmental law for the market: the emergence, character, and implications of Chile’s environmental regime”, *Environmental Politics*, Routledge, Vol. 20 No. 6, pp. 879–898.
- Tironi, M. and Kelly, S. (2020), “Care and Sovereignty: Territorial Control and the Decolonization of Disaster Risk Reduction”, *Items*, 25 June, available at: <https://items.ssrc.org/covid-19-and-the-social-sciences/disaster-studies/care-and-sovereignty-territorial-control-and-the-decolonization-of-disaster-risk-reduction/> (accessed 11 November 2020).
- Tuhiwai-Smith, L. (2012), *Decolonizing Methodologies: Research and Indigenous Peoples*, Second edition., Zed Books, London.
- Veland, S., Howitt, R., Dominey-Howes, D., Thomalla, F. and Houston, D. (2013), “Procedural vulnerability: understanding environmental change in a remote indigenous community”, *Global Environmental Change*, Elsevier, Vol. 23 No. 1, pp. 314–326.
- Whitmore, A. (Ed.). (2012), *Pitfalls & Pipelines: Indigenous Peoples and Extractive Industries*, Tebtebba Foundation, [Baguio City, Philippines, available at: [https://www.iwgia.org/images/publications/0596\\_Pitfalls\\_and\\_Pipelines\\_-\\_Indigenous\\_Peoples\\_and\\_Extractive\\_Industries.pdf](https://www.iwgia.org/images/publications/0596_Pitfalls_and_Pipelines_-_Indigenous_Peoples_and_Extractive_Industries.pdf) (accessed 21 June 2021).
- Zavala, M. (2013), “What Do We Mean by Decolonizing Research Strategies? Lessons from Decolonizing, Indigenous Research Projects in New Zealand and Latin America”, *Decolonization: Indigeneity, Education & Society*, Vol. 2 No. 1, pp. 55–71.

**Comment by ECR peer**

As a researcher working at the crossroad of (anti-colonial) Indigenous studies and disaster studies, I found this article by Carraro and their collaborators illuminating. It is often difficult to picture how to implement Indigenous decolonial methodologies in academic research and this paper develop an example of how to do so in the context of disaster studies. Doing so, the authors show us that to build more inclusive disaster studies that challenge the colonial context relationships are key. It manifests here from the creation of the research project, which rests on a collaboration between academic researchers and Mapuche journalists to the ability to collect relevant data and communicate about them.

I think this study of a multiple disasters situation display the relevance of a decolonial approach through Indigenous methodologies. The focus is on the experience of COVID by the Mapuche communities in Chile and the goal is to shed light on their specific experiences and understanding of the pandemic. However, this specific focus allows the researchers to reveal the articulations between capitalist extractivism, the current colonial process and COVID while making connections with what is happening in places as far as Canada and the Democratic Republic of Congo. Indeed, one can make the mistake to think that decolonial methodologies bring researchers to focus only on a small local reality, diving into one specific way of being in the world, one epistemology and miss the rest, but as this article shows us it is not the case. By being rooted in relationality and Indigenous epistemologies, decolonial methodologies allow the understanding of complex situations and interconnections from local communities to national and international systems. In this sense, they are displaying how the pandemic situation is used by the government to support more extractivist activities, while it leads the Mapuche communities to act in resistance to protect their communities.

This paper also displays how colonialism can be ingrained in disaster management and studies and how decolonial approaches can be relevant to reveal this. As the authors remind us “Decolonising

disaster studies' is clearly an ongoing process, bound up with decolonisation at large" and the research they present is a promising step in that direction. They also remind us that reflexivity is part of this process. I really appreciate how they use text boxes to share elements of reflexivity on their own research process. It is a smart way to keep the research results and the participants at center stage while maintaining some space for this reflexivity, avoiding the risk to fall into a form of narcissism and bending a little bit the framework imposed by a scientific journal.

This paper is inspiring for anyone wanting to do more inclusive disaster studies as much as people working with Indigenous people in general and supporting their decolonial project(s).

*Noémie González Bautista*

### **Response by authors**

In their response, Gonzalez Bautista identifies what we also consider as a key contribution of indigenous methodologies to disaster studies, namely the expansion of the scope of disaster research. Traditional approaches to scientific inquiry require the formulation of well-defined research questions, the narrowing down of the research scope, the selection of a spatially bounded research site. Objectives are formulated, relevant variables identified, hypothesis tested; answers are found (sic) and, ideally, translated into policy recommendations. By all means, this way of tackling research problems is very valuable. Yet, we suggest, it can become even more valuable when 'diffracted' through different ways of knowing that push against science's neat research framings. In our case, drawing on Mapuche epistemologies has helped us to explore non-linear causal relations between the pandemic and concurrent social and political processes, broadening the scope of research, both analytically and geographically (we thank the peer-reviewers for pushing us in this direction by pointing to the similarities between the *barreras sanitarias* and similar indigenous initiatives in other parts of the world).



We also share Gonzalez Bautista's view that reflexivity is key to good research, but can lead to navel-gazing, self-celebration ('look at how progressive I am') or dubious humbleness ('as a [insert categories of identity] I cannot claim to speak for any of the groups I am researching, but here I am anyways'). These concerns shaped the article format, and led us to the choice of disclosing the discussions, tensions and changes of mind that inevitably inform collaborative research projects.

We would like to conclude by thanking the special issue editors for organising this discussion forum, and Gonzalez Bautista for their generous appraisal of our work. The publication process can be stressful, even scarring, especially for early career researchers. Nurturing a space for caring exchanges with peers and mentors is a first, concrete step towards more inclusive disaster studies.