

# Introducing MACEDA: New micro-data on an indigenous self-determination conflict

**Pedro Cayul**, PhD Candidate in Development Economics and CIES Affiliated Researcher  
**Alejandro Corvalán**, Department of Industrial Engineering, Universidad de Chile  
**Dany Jaimovich**, Faculty of Economics and Business, Universidad de Talca  
**Matteo Pazzona**, Department of Economics and Finance, Brunel University London

## Introduction

Recent research on conflict points out self-determination (SD) disputes as one of the more prevalent around the world. Cross-country databases on SD conflicts, movements, and organizations have contributed to delimiting the scope and importance of these struggles. Among SD conflicts, the indigenous movements are prevalent all over the world, and they represent about 40% of all SD movements. Indigenous resistance is usually less violent than other SD conflicts. Most movements do not seek session or independence, but rather claim rights over their ancient lands and legal recognition of their traditional institutions and rules.

Therefore, to further improve our knowledge about indigenous SD conflicts, it is relevant to develop detailed data at a more disaggregated level and to understand differences among movements claiming SD. We tackle both challenges by introducing the first micro-data specifically focused on an indigenous SD dispute: the Mapuche - Chilean State Conflict Events Database (henceforth, MACEDA).

The Mapuche are the main indigenous inhabitants of Chile that account for the 10% of the population. They are one of the most disadvantaged populations in the country, with worse economic and social conditions than the rest of the Chilean society. The Mapuche territory was never de facto part of the Spanish empire and remained independent of Chile until the end of the nineteenth century, when it was incorporated under the effective Chilean sovereignty. Since then, the Mapuche have systematically been claiming their previous land, along with political and social recognition. The current phase of the conflict started in 1990, after the end of the Chilean military dictatorship. The new democratic governments failed to develop an effective institutional framework to provide solutions to the historical Mapuche SD claims.



## Data construction

MACEDA is a media-based event data set. Police or judicial files are not accessible, law courts do not report ethnic information, and data from civil organizations is recent, sporadic, and typically not public. We started by selecting a subset of media reports based on a search with keywords and then we manually select conflict-related media reports and identify events and their characteristics.

The primary media source is El Mercurio, which is the highest circulation Chilean newspaper. From the more than 21 thousand news reports obtained from the search with keywords, we ended up with 2,059 events. As El Mercurio is a right-wing and conservative media, it tends to exhibit a persistent bias against the Mapuche movement. Therefore, we expanded MACEDA using several alternative media sources covering the whole period. From more than 15 thousand news reports, we include 1, 016 events recorded in these alternative media sources. About 500 events are reported in both sources.

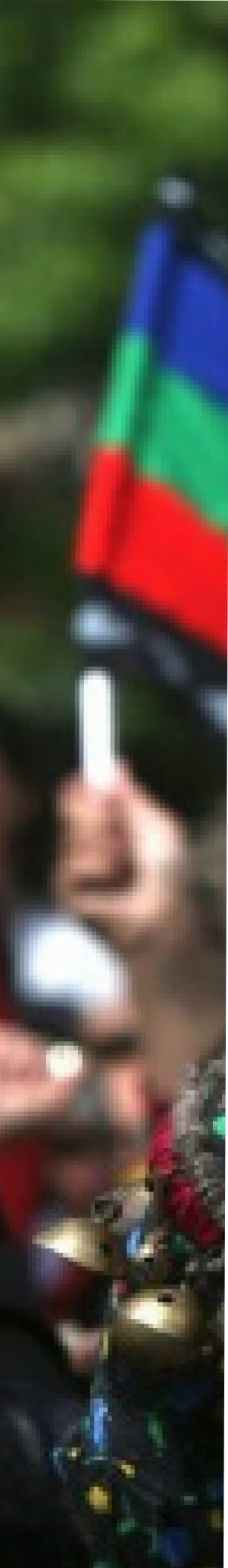
The final version of MACEDA includes 2,619 conflict events between the indigenous Mapuche group and the Chilean state in the period 1990-2016. For each event, MACEDA reports 38 variables that contain information on the characteristics of the event.

## Identification

Each event has a unique identification code. There is also an identification code for related events, which are previous events mentioned as having a direct relationship. MACEDA reports the date of the event and the specific location at municipality level, which allow us to analyze the evolution of conflict on time and its spatial distribution.

## Type of event

The event types are classified into four categories: attacks (38.5% of events), protests (25.8%), state coercion (20.7%), and land invasions (15%). There are several subcategories of the events, which allows us to distinguish between violent and non-violent actions. Considering events other than state coercion, 53.4% of the events in MACEDA are violent, like arsons or attacks with firearms. We report as well a high number of non-violent events like pacific demonstrations, land invasions and hunger strikes.



### Actors

MACEDA codes 15 categories of actors, which are classified into Mapuche and non-Mapuche persons and organizations. Among Mapuche actors, 42.1% are communities and organizations, that we identify with their specific and standardized names. Among non-Mapuche, state institutions are the most frequent actor (51%), but private entities such as landowners (19.3%) and forestry companies (15.7%) are relevant as well. Additional information on actors includes the number of persons involved, the use of weapons by any actor (if there was a confrontation between actors), related actors, and which actor initiated the event.

### Consequences

A set of variables summarize the consequences of the event. 20% of events had destruction of assets and properties in the event. Whenever available, there is a variable reporting the estimated cost of the lost property. The number of arrested, wounded, and dead persons are also reported. MACEDA registered 21 casualties, less than one per year. But the severity of the conflict is better reflected in the 2,746 arrested and more than 803 wounded persons reported.

### Applications

To illustrate how MACEDA can be used in future research, we present an empirical application analyzing the strategies undertaken by the actors in conflict.

In this exercise, we probe that as the movement is more fragmented (measured as the log of the number of actors active in the previous quarter), the more violent the tactics of the actors are in the next quarter. We also provide evidence that the actors' choice for violence depends on others' previous levels of violence. Specifically, we found that a one standard deviation increase in violence from the other actors increases the likelihood of a violent strategy by an actor in 5% above the mean in the next period.

### References

Cunningham, K G 2014, *Inside the Politics of Self-determination*, Oxford University Press.  
Gleditsch, K S, Metternich, N W, & Ruggeri, A 2014, 'Data and progress in peace and conflict research', *Journal of Peace Research*, vol. 51, no. 2, pp. 301–314.  
Minde, H 2008, *Indigenous peoples: Self-determination, knowledge, indigeneity*, Eburon Uitgeverij BV.  
Sambanis, N, Germann, M, & Schädel, A 2018, 'SDM: A New Dataset on Self-Determination Movements with an Application to the Reputational Theory of Conflict', *Journal of Conflict Resolution*, vol. 62, no. 3, pp. 656–686.  
Warren, K B, & Jackson, J E 2003, *Indigenous movements, self-representation, and the state in Latin America*, University of Texas Press.

Previous studies have also shown that a strong opposition by the state increases the actors' choice for violent tactics and the fragmentation in the movement. We provide evidence that adopting violent strategies is correlated with state coercion in the previous quarter. We also find a positive correlation between the increase in state repression and fragmentation in the next quarter. The coefficient implies that a 50% increase in the number of arrests increases the number of active actors in 8.5%.

### Conclusion

Future research may benefit from micro-data like MACEDA for developing generalizable theories about SD and other kinds of conflicts. Firstly, considering a variety of strategies beyond violent events is fundamental for the understanding of contemporary conflicts. Secondly, subnational data is consistent with the actor-oriented theoretical frameworks used in the study of contentious politics. Moreover, incorporating strategies like land invasions provides a bridge with theories of conflict over contested rural property in the framework of peasant movements and land reforms.



## About the Centre for International Environmental Studies

- Established in 2010, the Centre for International Environmental Studies (CIES) is the Graduate Institute's focal point for research on environmental issues. The centre is dedicated to the better understanding of the social, legal, economic and political facets of global problems related to the environment, with an emphasis on the international dimension and the North-South relations.
- The centre addresses complex problems such as climate change, biodiversity, food security, energy, natural resources and development. CIES's mission is to conduct high level academic research to improve the quality of decision making in public and private spheres. This goal is achieved by creating a platform for researchers to conduct interdisciplinary research on the environment, by providing training to PhD students in specialized areas of research and by disseminating research results through outreach activities targeted to academic experts and policymakers.
- CIES is part of a number of academic networks and partners with academic institutions and stake-holders throughout the world. Located in the heart of International Geneva, CIES regularly hosts workshops and conferences that bring together researchers and policy-makers.



### CENTRE FOR INTERNATIONAL ENVIRONMENTAL STUDIES

GRADUATE INSTITUTE OF INTERNATIONAL AND DEVELOPMENT STUDIES

Case postale 1672, 1211 Genève 1

T +41 22 908 44 61

[cies@graduateinstitute.ch](mailto:cies@graduateinstitute.ch)

[www.graduateinstitute.ch/cies](http://www.graduateinstitute.ch/cies)