Environmental protection presents a challenge for commodity-producing democracies. To account for the enforcement of environmental laws in decentralized systems, this article proposes a multilevel approach that highlights the importance of national laws and subnational implementation rules to the politics of enforcement. This approach contrasts with prominent scholarship that focuses on sanctions and the electoral incentives and bureaucratic resources of enforcers. The advantages of the multilevel approach are demonstrated by the enforcement of the native forest protection regime (NFPR) in the Argentine Chaco Forest, which is shaped not only by whether sanctions on illegal deforestation are applied by subnational authorities but also by the design of both the national law and subnational regulations. The article employs quantitative data and case studies based on extensive fieldwork to show how affected subnational organized interests influenced the design of the NFPR and the provincial regulations that weaken or strengthen enforcement.
The protection of the environment in the context of growing international demand for commodities has posed important challenges for Latin American democracies. Driven by spiking prices and technological innovations, the rapid expansion of croplands and cattle ranching has contributed to a rise in social conflict\textsuperscript{1} and has led governments throughout the region to adopt environmental legislation, including forest protection laws.\textsuperscript{2} Those institutions are especially challenging because they impose constraints on land use in a region that exhibits both the highest potential for agricultural expansion and the highest levels of land inequality in the world.\textsuperscript{3} In light of prominent scholarship arguing that institutions in many Latin American countries are weak, meaning that they are unstable and fail to structure behavior,\textsuperscript{4} a key question concerns the conditions under which environmental rules achieve higher levels of enforcement.

To address this question, we focus on the enforcement of forest protection legislation in the Argentine Chaco Forest. Covering 60 percent of the Chaco Americano, the largest forestland and biomass reservoir outside tropical areas in the southern hemisphere,\textsuperscript{5} the Argentine Chaco accounts for 88.5 percent of the country’s forest loss.\textsuperscript{6} Under pressure from environmental activists seeking to curtail depletion in the Chaco Forest, the National Congress of Argentina sanctioned a native forest protection regime (NFPR) in 2007. The NFPR required provinces to pass implementation regulations, classify forest areas according to their conservation value, and establish enforcement agencies.

We propose a multilevel approach to understanding the politics of enforcement in decentralized systems characterized by weak institutions. Unlike prevailing views that focus on state capacity and the electoral incentives of local authorities in charge of applying sanctions for noncompliance, we argue that enforcement can best be understood by analyzing the politics surrounding the design of the law as well as the rules implementing it across levels of government.
The politics of a law’s design and implementation, of which enforcement is a critical component, may be more connected than typically acknowledged. Our framework further draws attention to the role of organized interests favoring or hindering enforcement.

Applying our multilevel framework to the enforcement of the NFPR, we find that subnational organized interests—conservationist coalitions resisting deforestation and large producers seeking to expand agriculture into forestlands—strove to influence the formulation of the national law and its implementation rules in order to enhance or dilute its enforcement. As the NFPR was debated in the Congress, national environmental NGOs participated in the law’s formulation and mobilized public opinion for its approval. In turn, large producers who stood to bear the cost of enforcement tried to block its passage or lessen its impact by securing greater discretion for subnational governments in the law’s implementation. Compromise among legislators resulted in a law with a conservationist goal but containing ambiguities that allowed provincial governments to relax its enforcement significantly.

Governors charged with implementation have sought primarily to diffuse pressures from competing provincial-level organized interests—large producers and conservationist coalitions—by exploiting the ambiguities of the NFPR in the design and enforcement of provincial rules. When provincial conservationist coalitions are strong, the design of provincial regulations is in agreement with the conservationist goals of the NFPR. Pressure from powerful large producers, however, results in greater deforestation—either through the nonenforcement of protectionist regulations, where conservationist coalitions exist, or, where conservationists are not organized, through the design and (weak) enforcement of flawed regulations that allow for legal violation of the NFPR.

Our multilevel approach to enforcement contributes to the literature on institutional change by highlighting the role of inconsistencies in rules across different levels of government as a source
of subnational weak enforcement. Scholars studying institutions in affluent democracies underscore ambiguity in the law as a source of incremental institutional change. We add to this literature by showing how, in contexts of institutional weakness, inconsistent rules may not result only from inherent ambiguity in complex legislation but may also be deliberately inserted into the law by sectors who bear the costs of enforcement to weaken its effect. Our framework thus draws attention to the design of subnational implementation rules, which are critical to the enforcement of national laws.

In the next section, we introduce our multilevel approach to enforcement. We then analyze the design of the NFPR and identify and account for the weaknesses that generated opportunities for variable levels of enforcement. Next, we measure the design and enforcement of provincial regulations across the provinces in which the majority of the Argentine Chaco is located and where forestlands cover at least 50 percent of the provincial area: Chaco, Formosa, Santiago del Estero, and Salta. The discussion continues by accounting for remarkable cross-provincial variation in implementation rules and enforcement of the NFPR despite similarities in economic development, state capacity, and electoral dynamics. Our analysis relies on quantitative and qualitative data. We trace the design and implementation of the NFPR across the four provinces, using documents, newspaper articles, and close to seventy interviews with governors, legislators, peasant and indigenous movement leaders, and environmental activists. The final section illustrates our multilevel approach with case studies of Salta and Santiago.
Multilevel Approach to Enforcement

Scholars maintain that formal institutions are weak in many developing countries—frequently changed and enforced unevenly, if at all. Enforcement is undermined by low state capacity or by the purposive action of those in charge of sanctioning noncompliance. Prominent explanations link uneven enforcement with subnational authorities’ pursuit of electoral gains among voters who bear the cost of enforcement.

Recent studies have made important contributions to our understating of enforcement in contexts of institutional weakness, but they have typically limited their analyses to the incentives of those in charge of applying the law. In line with scholarship on institutions in affluent democracies, those studies have often viewed the politics of designing formal rules and the process of rule implementation as distinct. One body, usually the executive or the congress, writes a law that another body, usually the bureaucracy or local authorities, implements. The interests of the actors involved in the formulation of the law and of those in charge of implementation—of which enforcement is a critical component—are generally not analyzed in connection to one another. And the process of designing implementation rules, which may alter the conditions for enforcement, is overlooked.

We argue that this separation between the design of a law at the national level and its enforcement at the subnational level is attenuated or nonexistent in multilevel systems in which subnational authorities have design and implementation responsibilities. In Latin America’s federal systems, provinces have constitutionally based powers that restrict the scope of the national authority over specific issues, and their representatives in congress participate in the design of national legislation. Subnational interests organizing to oppose a national law may attempt to
block it or to weaken its enforcement by influencing its design to their advantage. These actors have greater chances of attaining influence in the Senate or territorial chamber, where malapportionment is common across Latin America and particularly acute in Argentina. Lawmakers representing those who will bear the cost of enforcement may minimize the impact on such groups by introducing ambiguity and opportunities for discretion that allow variable levels of enforcement to take shape. This practice resonates with the literature on bureaucratic delegation in wealthier democracies, which holds that politicians assign levels of discretion in the law depending on who controls implementation. However, our approach stresses the importance of inconsistent rules and nonenforcement, more typical of weakly institutionalized contexts.

When subnational governments are responsible for passing implementation regulations within their jurisdictions (e.g., zoning maps), the enforcement of the national law may be undermined at the provincial level. Organized interests may try to influence the design of regulations and weaken enforcement, especially if the national law leaves room for discretion or is ambiguous on matters affecting enforcement. Provincial authorities may exploit those ambiguities and dilute the strictures of the national law, allowing for “legal” noncompliance—for example, by creating permissive deforestation rules—and minimal penalties for infractions. Attention to the content of national laws and implementation rules is therefore critical to our understanding of the conditions that facilitate or undermine enforcement.

Disagreement or inconsistency between national and subnational rules allows for what Thelen calls institutional conversion, or the deployment of institutions toward new purposes without altering the letter of the national law. During implementation—and depending on subnational power configurations—such inconsistencies allow subnational actors to steer a law in different directions; the result is variation in its enforcement across provinces.
Following studies that view institutions as the result of conflict, we find organized actors operating at different moments of design and enforcement of the NFPR to shape the likelihood of effectively pursuing a law’s statutory goal and sanctioning noncompliance. As shown below, in the Argentine Chaco these actors are large producers and conservationist coalitions.

In sum, our multilevel approach advances three main points in analyzing the politics of enforcement in decentralized systems. The first emphasizes the importance of investigating not only whether sanctions are imposed on noncompliance, as much of the literature on weak institutions in Latin America has done, but also the content of the panoply of rules that are part of the law’s implementation. Second, it is crucial to consider whether ambiguity and opportunities for discretion contained in the letter of the law limit its enforcement. Ambiguity may result in implementation rules that contradict the law’s statutory goal without necessarily violating the law. Finally, how actors at the national level affect implementation and how subnational actors affect the design of a national law are important in the study of enforcement. As power struggles and political conflict shape the inception of institutions, competing interests are also relevant during implementation, when subnational actors struggle to adapt implementation rules to their advantage.

The Design of the National Forest Protection Regime

As deforestation accelerated in the 2000s, national environmental NGOs pressured the National Congress of Argentina and mobilized public opinion for the adoption of forest protection legislation. In 2006, the bill that would become the NFPR was submitted to the Congress by center-left legislators from the city of Buenos Aires. Environmental NGOs participated in drafting the bill, which was vigorously opposed by legislators from the Chaco provinces. The law would, the
legislators claimed, curtail the unprecedented economic opportunities benefiting the less-developed, forest-rich provinces.\textsuperscript{21} By imposing federal rules on land use, deforestation permits, and sanctions for noncompliance, the law would truncate the provinces’ constitutional right to administer their natural resources.

The NFPR was passed in November 2007 after senators from the Chaco provinces introduced modifications that gave subnational authorities leeway in its implementation. The Chaco provinces are overrepresented in Congress, and senators from those provinces were able to insert ambiguities in the NFPR that lowered the cost of noncompliance and undermined the law’s statutory goal. First, senators blocked a unified sanctions regime and replaced it with a wider and lower scale of fines for violations. The highest sanction in the original bill was 30,000 times the lowest national public sector salary. The law approved by the senate established a range of fines between 300 and 10,000 times that salary, allowing governors to impose modest penalties for infractions. Second, the national environmental agency’s authority to sanction provincial governments’ noncompliance with the NFPR in designing and enforcing provincial regulations was severely curtailed. Third, the NFPR required provinces to classify forests according to their conservation value into three categories that allowed for different economic activities: no transformation in high conservation (red) areas, sustainable management in medium conservation (yellow) areas, and transformation for agriculture in low conservation (green) areas. Although the law established unified criteria defining these categories, it failed to specify which activities could be carried out in “sustainable management” areas. It was left to subnational authorities to advance their own interpretation of a critical aspect of the NFPR. These three changes provided ample room for varying levels of enforcement across the core Chaco provinces.
Provincial Regulations and NFPR Enforcement across Chaco Provinces

Provincial governments were required to enact a Territorial Classification of Native Forests (Ordenamiento Territorial de Bosques Nativos, or OTBN), including forest land-use regulations and a zoning map in accordance with the NFPR, and to enforce the NFPR. Provinces defined and enforced these rules more or less consistently with the NFPR’s goal of ending deforestation in protected areas and regulating land use. Below we measure NPFR-OTBN consistency and NFPR enforcement in the core Chaco provinces.

Consistency of Provincial Regulations

We analyze the degree of consistency or agreement between the OTBNs and the NFPR, looking at three consequential issues: (a) the classification of forest areas according to their conservation value (zoning map), (b) land-use regulations in yellow areas, and (c) the possibility of recategorizing individual farms. Attributing a lower conservation value to forestlands than technically recommended, allowing for activities that could involve clearings in yellow areas, and recategorizing farms to lower conservation levels, forbidden by the NFPR, all undermined enforcement of the NFPR by legalizing noncompliance.

To measure consistency between the NFPR and the OTBNs in the classification of forests, we rely on a study of provincial zoning maps that assesses the extent to which provinces attributed similar conservation values to forests cutting across provincial borders and ranks provinces according to their level of conservationism. On the basis of this analysis, we score the zoning maps of Chaco and Santiago as having high levels of conservationism and those of Salta and Formosa as having low levels of conservationism (Table 1).

Yellow areas allow for sustainable economic activities but bar changes to land use (e.g.,
clearings). The NFPR does not specify what sustainable management entails, and provinces show variation in both the activities they allow and the regulation of such activities. With the exception of Formosa, which classified 74.5 percent of its forest areas as green, the remaining Chaco provinces classified most of their forestlands (63–74 percent) as yellow.\(^{23}\) OTBNs permit forest grazing and controlled timber extraction, both of which are vulnerable to concealed clearings; some also allow clearing for pastures—forbidden by the NFPR. As shown in Table 1, we find stricter rules in yellow areas for regulations on grazing and clearings in Chaco and Santiago than in Salta and Formosa.

### Table 1. Consistency between NFPR and Provincial Regulations (OTBNs), Core Chaco Provinces.

<table>
<thead>
<tr>
<th></th>
<th>Conservationism of Zoning Map(^\d)</th>
<th>Regulation of Yellow Areas(^2)</th>
<th>Discretion to Recategorize</th>
<th>Overall Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chaco</td>
<td>High</td>
<td>High</td>
<td>None</td>
<td>High</td>
</tr>
<tr>
<td>Formosa</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Salta</td>
<td>Low</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Santiago</td>
<td>High</td>
<td>High</td>
<td>Low</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

*Note:* Discretion to recategorize was high in Salta until 2014.


Formosa, Salta, and Santiago permit the recategorization of farms to lower conservation values. Unlike Santiago, which established a technical council to authorize recategorizations, Salta determined recategorizations through its environmental agency—which is politically dependent on the governor—and an advisory council of large producers. Consequently, we score discretion to recategorize as high in Salta and low in Santiago.\(^{24}\) In Formosa, where yellow areas are small
and largely map onto land that belongs to indigenous communities, those communities have broad power to recategorize their forests as green.

Overall, Chaco’s OTBN is the most consistent with the NFPR’s conservationist goal, followed by that of Santiago. Formosa and Salta designed OTBNs that are inconsistent with the NFPR and legalize noncompliance.

**Enforcement of the NFPR**

We use three indicators to gauge the enforcement of the NFPR. First, we assess whether the law attains its goal of ending deforestation in protected areas—red and yellow areas—in which clearings have been forbidden since the approval of OTBNs. Second, we measure total deforestation since the enactment of the NFPR. This allows us to capture nonenforcement in provinces that misclassified forestlands into lower conservation categories (e.g., Formosa) and to measure whether deforestation continued in the period between the enactment of the NFPR and the OTBNs, when clearings were forbidden. Finally, we assess whether provinces did recategorize farms to lower conservation values.

As shown in Figure 1, there is significant deforestation in protected areas and overall, as well as variation in rates across provinces. Santiago lost 13 percent of its forest between 2006 and 2016, followed by Salta, Formosa, and Chaco. Santiago also lost an important share of its protected forest (6 percent) after enactment of its OTBN. At the other end of the spectrum, Formosa saw almost no deforestation in protected areas, but as the province protects only 25 percent of its forest, most clearings are legalized. The percentage of forest loss in protected areas is also comparatively low in Salta, where around 80,000 hectares of protected forestlands were recategorized as low
conservation value.\textsuperscript{25} Recategorizations are allowed in Formosa, Salta, and Santiago, but they have been carried out only in Salta.

**Figure 1.** Percentage of Forest Loss, Total Forest and Protected Areas, Core Chaco Provinces.

![Bar chart showing percentage of forest loss in Chaco, Formosa, Salta, and Santiago.](chart)

- **Note:** Total forest loss: area deforested between 2006 and 2016; forest loss in protected areas: area deforested in red and yellow areas between the enactment of each OTBN and 2016. **Source:** Authors’ calculations based on Ministerio de Ambiente y Desarrollo Sustentable (MAYDS), “Monitoreo de la superficie de bosque nativo de la República Argentina: Edición marzo 2017” (Buenos Aires: MAYDS, 2017).

Overall, enforcement is low in all provinces but Chaco, which has the lowest rates of deforestation and does not allow for recategorizations. This province also has the highest NFPR-OTBN consistency. Deforestation in Formosa and Salta has been higher; it is sustained not only by lack of enforcement but also by OTBNs that legalize violations to the NFPR (e.g., flawed zoning, recategorizations). Santiago, in turn, has moderate NFPR-OTBN consistency but low enforcement, with high deforestation rates.
Subnational Interests and Governors’ Choices

We argue that the extent to which provincial authorities design OTBNs consistent with the NFPR and enforce the national law depends on the combined pressure of large producers seeking to expand croplands into forestlands and the presence of a conservationist coalition opposing forest clearings. Below we present the main actors shaping the NFPR’s implementation and our expectations regarding governors’ implementation choices. We then score the core Chaco provinces along the presence of these actors and implementation outcomes.

Large Producers

We define large producers as those with parcels of 2,5000 hectares or more. During the commodity boom, producers were attracted to the Chaco provinces by low land prices, the availability of large farms that allowed them to maximize profits, and the absence of strict restrictions on cropland expansion until the NFPR was approved.

When the NFPR bill was discussed in the National Congress, large producers from forest-rich provinces sought to weaken or cut provisions, such as penalties for noncompliance and strict definitions of land use, that would curtail their massive expected profits. During implementation, large producers pressured provincial authorities for a permissive OTBN and lax enforcement of the NFPR.

The literature identifies two types of producer power: structural power and instrumental power. Structural power stems from uncoordinated investment decisions by profit-maximizing individual producers whose (expected) aggregate economic effects influence policymakers’ choices. Instrumental power refers to producers’ capacity to engage in political actions, such as lobbying, financing electoral campaigns, and direct participation in policymaking, in order to gain
policy influence. Instrumental power is higher if producers have significant economic resources as well as links with policymakers and politicians. In the Chaco provinces, landownership has historically been a source of political power and, as a consequence, linkages between the economic and political elites are strong. Therefore, we expect both types of power to be intertwined. We consider large producers powerful if their farms combined represent approximately 50 percent of a province’s total productive farmland and they are thus the main rural economic actors. Large producers are powerful in Formosa, Santiago, and Salta. As revealed in our interviews, in these provinces, their investment decisions are relevant to governors, and their access to policymakers in pronounced.

Conservationist Coalitions

Conservationist coalitions are groups that oppose the expansion of croplands and cattle ranching into forests and have the capacity for sustained collective action. They may act on environmental principles or act on concerns about the negative effects of forest clearing on their own economic activity and livelihoods. In the core Chaco provinces, conservationist coalitions include diverse groups—timber producers, peasants, and indigenous communities—who engage in sustained collective action and press for the strict implementation of the NFPR, even if they do not act together. In line with other pro-environment groups, conservationists in the Chaco forest have not developed cross-provincial solidarity and find it difficult to coordinate with national and transnational environmental movements.

We rely on the existing literature and multiple data sources—interviews, newspaper articles, and organization and government materials—to gauge the presence of conservationist groups and their capacity for sustained collective action. Conservationist coalitions have formed in Chaco and Santiago but not in Formosa or Salta. In Chaco, they include indigenous communities as well as
the timber industry—which represents 10.3 percent of the province’s industrial gross product and competes with agricultural producers for the exploitation of forests. The timber industry opposes the expansion of agriculture and ranching. Its associations are well-organized and have access to the government through formal and informal channels. Indigenous communities advance their demands through the Chaco Indigenous Institute and have participated actively in the discussion and design of the OTBN. In Santiago, small peasants’ lack of land titles led to the formation of numerous peasant and indigenous associations coordinated by the Santiago del Estero Peasant Movement (MOCASE), which developed high mobilizational capacity. MOCASE pressed forcefully for conservationism in the design and enforcement of the OTBN through contention and participation in roundtables and policy councils.

In Salta, by contrast, NGOs working with indigenous communities, universities, and national environmental groups have tried to influence the implementation of the NFPR, but their ability to pressure the provincial government has been limited by the absence of meaningful organizations representing affected communities. In Formosa, the peasant movement and the timber industry are weak and co-opted.

**Governors’ Choices**

We center our attention on governors because they are fundamental actors in the implementation of the NFPR. Governors draft OTBNs, push them through local legislatures, and use veto and decree powers to modify them. They also establish the agencies in charge of enforcing these regulations. Scholarship on Argentina’s federal system has emphasized the limited division of powers in low-income provinces, in which governors generally dominate politics. Governors may have no preferences regarding forest protection, but they fear that destabilizing conflict generated by the implementation of forest rules may undermine their hold on power.
Forest laws affect relevant economic interests in forest-rich provinces; they also give governors distributive tools (regulations, sanctions) that can be used to appease conflict.\textsuperscript{38} Governors may use critical aspects of the law, such as zoning maps and land-use regulations, to cater to powerful interests. They may also grant concessions, such as payments for environmental services, to powerful actors; and they may choose to apply sanctions—or not—to prevent discontent from destabilizing their administrations.

We expect governors to respond to the presence or absence of powerful large producers and conservationist coalitions as described in the propositions below. Table 2 summarizes our metrics of the explanatory factors and implementation outcomes—NFPR-OTBN consistency and enforcement—across provinces. Our expectations regarding governors’ choices are largely confirmed.

Governors who face powerful large producers and no conservationist coalition are likely to design an OTBN with low consistency and to enforce the NFPR weakly in response to producers’ demands or perceived preferences (i.e., structural power). According to our metrics, these expectations correspond to the Salta and Formosa cases. By contrast, when they face a conservationist coalition and most productive land is not controlled by large producers, governors will be motivated to design a strict OTBN and to enforce the NFPR. Our evidence shows that these expectations are met in Chaco. Governors may also face both powerful large producers and a conservationist coalition. In that case, they will cater to both sectors by designing a strict OTBN, as watchful conservationist groups will denounce attempts to bias its design. However, to cater to producers, governors will relax enforcement, which is harder for conservationist groups to control. These expectations are supported by our evidence for the case of Santiago.
Table 2. Large Producers, Conservationists, and NFPR Implementation, Chaco Provinces, 2006–16.

<table>
<thead>
<tr>
<th></th>
<th>Powerful Large Producers</th>
<th>Conservationist Coalition</th>
<th>NFPR-OTBN Consistency</th>
<th>NFPR Enforcement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chaco</td>
<td>No (31%)</td>
<td>Yes</td>
<td>High</td>
<td>Moderate</td>
</tr>
<tr>
<td>Formosa</td>
<td>Yes (46.2%)</td>
<td>No</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Salta</td>
<td>Yes (75.1%)</td>
<td>No</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Santiago</td>
<td>Yes (58.1%)</td>
<td>Yes</td>
<td>Moderate</td>
<td>Low</td>
</tr>
</tbody>
</table>

Note: Percentages represent total share of productive land in farms of 2,500 hectares or more. NFPR-OTBN consistency is described in Table 1.


Multilevel Politics in Salta and Santiago

We apply our multilevel approach to enforcement to the cases of Salta and Santiago. Large producers are especially powerful in both provinces, but a conservationist coalition is present in Santiago only. The comparison of these cases illustrates the effect of each actor—conservationists and large producers—on the design of provincial regulations and the enforcement thereof. Through process tracing, we show that provincial-level interests strove to influence the design of the NFPR in Congress and the law’s implementation at the subnational level, and we reveal how and why governors, taking advantages of ambiguities and room for discretion embedded in the federal law, shaped provincial regulations to mitigate pressures from large producers and conservationists. We also analyze how the power of large producers has translated into high deforestation in both provinces, partly through “legal violations” to the NFPR in Salta and blatant nonenforcement in
Santiago. Consequently, while Salta’s producers benefit from flawed regulations, Santiago’s deforesters are operating illegally. The different strategies pursued by governors to favor large producers across the two provinces result from the presence of a conservationist coalition in Santiago, which barred the design of a flawed OTNB but could not counterbalance producers’ power to secure enforcement. Our analysis further shows that weak enforcement in these provinces is not explained by low state capacity or electoral considerations.

**Salta**

*Subnational Interests and the Design of the NFPR*

After the NFPR bill was approved in the lower chamber with support from legislators representing urban constituencies, Salta’s large producers sought to influence the bill in the Senate. Juan Carlos Romero of the Justicialist Party (PJ), Salta’s governor from 1995 to 2007, had strong connections to large producers, and the province’s senators promoted these producers’ interests in Congress. Large producers commissioned Fundesnoa, a local think tank funded by agribusiness and headed by Romero’s former secretary of environment, to draft an alternative bill to the NFPR. Senator Sonia Escudero, who was aligned with Romero, introduced Fundesnoa’s bill in the Senate. This bill departed from the NFPR in several ways. It established no criteria for determining levels of conservation value, thus allowing provinces to define their own zoning maps unconstrained, and did not suspend the extension of clearing permits until the approval of the OTBNs. Furthermore, Fundesnoa’s bill introduced payments for environmental services to compensate producers for conservation and sustainable management projects. The compensation fund was key to the approval of the NPFR. The remaining Fundesnoa proposals did not make it into the law. As
expected in our multilevel framework, producers fought for at the provincial level, where their influence proved particularly effective.

Shortly before the NFPR was approved, Romero granted Salta’s producers a fundamental concession: he issued clearing permits covering 435,000 hectares, equivalent to 5 percent of Salta’s forestlands and comparable to the total area authorized for clearing in the previous three years. These permits, which generated strong criticism from environmental groups and local communities, sought to protect investors from stricter environmental regulations.

*Designing Salta’s OTBN*

The implementation of the NFPR fell into the hands of the newly elected governor, Juan Manuel Urtubey of the PJ, who assumed office in December 2007 after defeating Romero’s candidate. Although Urtubey belonged to a family of landowners and had been Romero’s secretary of state, he criticized the incumbent’s environmental policy during the campaign and appointed an anthropologist with expertise on indigenous communities as minister of environment. However, once in office, Urtubey was soon to change course.

Large producers exerted intense pressure on the governor to design the OTBN quickly, to reduce uncertainty about their investments, and to end the ban on new clearings established by the NFPR. They also defended Romero’s permits vigorously. Salta’s landowners advanced their demands through direct legislative representation, positions in government, personal connections, and powerful provincial lobbies such as Asociación Prograno and Sociedad Rural. Environmental organizations—particularly Greenpeace—alerted by Romero’s clearing permits, pressured the government to abide by the NFPR in designing provincial regulations. However, in the absence of a local conservationist coalition to counteract powerful producers, the power of
national-level environmental organizations was limited. By illustration, the minister of environment was removed in June 2008 after she suspended three of Romero’s permits that affected indigenous communities.

As required by the NFPR, Urtubey held public forums to discuss a draft OTBN in early 2008. In contradiction to the NFPR, however, separate meetings were held for each sector involved in the process—for example, peasant and indigenous communities and large producers.45 Faced with the large producers’ intense resistance to the NFPR, Urtubey sent the legislature an OTBN bill in November of 2008 that lacked a zoning map and was indisputably favorable toward large producers. The bill flouted the NFPR on fundamental issues: it allowed for the recategorization of individual landholdings and stated that the zoning map, to be added to the bill at later stages, would be “for guidance” only.

A group of large producers led by Senator Alfredo Olmedo, the son of Salta’s “soy king,” who had benefited from a scandalous concession of massive tracts of provincial land under Romero’s administration,46 submitted an alternative proposal challenging Urtubey’s bill. Olmedo’s bill classified 5.8 million hectares, 63 percent of Salta’s forestlands, as green.47 Although not publicly endorsed by the main producers’ organizations, Olmedo’s proposal did signal the preferences of a group of large producers and pressured Urtubey to design a watered-down zoning map.48

Salta’s resulting OTBN, approved in December 2008, was fundamentally flawed. In line with Urtubey’s bill, it allowed a broad range of activities in yellow areas, permitted the recategorization of individual landholdings to lower conservation value, and, crucially, was approved without a zoning map, which was to be produced within two months but “for guidance” only. A flexible
map was critical; according to Escudero, producers accepted the OTBN only because it made it possible to re-categorize individual landholdings.\(^{49}\)

Urtubey sought to avoid conflict. Facing intense pressure from powerful producers, he legalized violations and retained the power to determine which forest areas and individual farms would be affected by environmental restrictions. As noted by an official of the Secretariat of the Environment, “In the face of pressures, in order effectively to address producers’ demands and the need to grow in the agricultural frontier, these legal tricks [artilugios legales] were generated so that this would happen [expansion of agriculture] in a regulated way, not illegally.”\(^{50}\) The secretary of the environment further suggested that these legal violations of the NFPR aimed to “decompress a situation that is real and that continues… We cannot hide reality or hold back the tide with a broom… this pressure by producers… exists even today.”\(^{51}\)

As the governor appeased producers by designing the zoning map behind closed doors, peasant and indigenous communities aided by NGOs and religious organizations filed an injunction (amparo) to the Supreme Court to repeal Romero’s clearing permits, pointing to their deleterious environmental and social consequences. The Supreme Court temporarily suspended all clearings in the affected departments,\(^{52}\) thus bringing the question of deforestation to the national media. A mudslide in February 2009, which both environmental NGOs and the public immediately connected to deforestation, drew increased media attention to Salta\(^{53}\) and forced Urtubey to consider conservationist demands.

A few months later, Urtubey promulgated Salta’s OTBN and the zoning map was made public. The map classified as yellow all the holdings disputed by the indigenous communities in the Supreme Court case, and the clearing permits affecting those areas were reversed. The governor further issued a decree temporarily banning clearings in lands claimed by indigenous or peasant
communities until both a survey of indigenous communities and negotiations with claimants had been carried out. This measure sought to minimize conflict with those communities and prevent the emergence of powerful organizations opposing clearings. The disputed areas came to be labeled “social yellow” by government officials; the ban was extended beyond the initial period, as neither the survey nor the negotiations were carried out.

The groups that spearheaded legal action at the national level did not constitute a conservationist coalition; they could barely sustain collective action. In fact, their appeal to the national judiciary aimed to compensate for their limited influence in Salta. The court’s decision was confined to the disputed areas and, given the pressure of large producers, had no impact on enforcement. While the court’s suspension was in effect, 53,202 hectares affected by the ruling were deforested.54

The “social yellow” label generated vigorous reactions from large producers.55 In response, Urtubey established an advisory council to issue recommendations on recategorizations. It was entirely made up of representatives of producers’ associations56 and specified criteria for recategorizations by decree.57 Although Urtubey eventually repealed this decree in 2014, following accusations by national NGOs that recategorizations benefited producers with political connections, the zoning continues to be “for guidance.”58

Enforcing the NFPR in Salta

Enforcement in Salta has been weak. From 2008, when the OTBN was enacted, to 2016, the equivalent of 2.5 percent of Salta’s protected areas were cleared. Because enforcement of the NFPR was weakened by the design of a flawed OTBN, total deforestation rates since the approval of the law is another useful metric of enforcement. Clearings did not diminish with the enactment
of the NFPR (Fig. 2). Not until 2015 did deforestation drop to pre-commodity boom levels. Between 2002 and 2015, Salta lost close to 16 percent of the forest it possessed in 2002; 65 percent of that deforestation took place between 2008—after the approval of the NFPR in 2007—and 2015. The data clearly show exceptionally high levels of deforestation in 2008, when several of the fraudulent clearing permits awarded by Romero were executed. Enforcement was further weakened by the recategorization of protected forests to lower conservation values. Between 2010 and 2014 the provincial government authorized the recategorization of thirty-two farms, amounting to 80,000 hectares of protected forestland, of which 44,800 hectares had been cleared by 2017.\textsuperscript{59}

**Figure 2.** Annual and Accumulated Deforestation, Salta, 2001–15 (Hectares).

\textit{Source:} Authors’ calculations based on data from Global Forest Watch, www.globalforestwatch.org/countries.
The governor undermined the enforcement of the NFPR in two ways. He enacted regulations that allowed significant violations, and he minimized the law’s impact on producers by the uneven application of low fines and by failing to build the capacity to monitor and sanction noncompliance. Salta received the second-largest share of the federal fund to support NFPR enforcement, but there is no evidence of improvement in state capacity. According to the secretary and experts at the provincial ministry of environment, the fund has been used primarily for salaries and equipment at the ministry headquarters in the capital city. The province did not add to its two existing offices to monitor clearings in forest-rich areas. In 2012, only one team monitored deforestation on the ground in a province with 6.7 million hectares of protected forests. State capacity was deliberately neglected to ameliorate the cost of noncompliance for large producers.

When fines were imposed, their value was minimal. Sanctions thus did not incentivize compliance. Key informants, including producers and Urtubey himself, acknowledged that fines were extremely low and ineffective. The province issued ninety-six infractions on 88,900 hectares in 2013 and 2015, on average a meager penalty of fifty-nine liters of gas per cleared hectare for illegal clearings identified between 2006 and 2014. The fines were low both in reach—given the high rate of deforestation—and in value. Consider the following example. An illegal clearing of 715 hectares of high and medium conservation value forests in the department of Anta in 2014 was fined with 35,000 liters of gas, approximately US$50,000 at the time. The value of a cleared hectare in Anta sold at the time for as much as US$7,000, whereas a hectare of forest cost US$1,800 at most. If the landowner were to illegally clear the land, pay the fine, and sell the farm, she could still make a profit of approximately US$3.7 million. In other words, violators, if punished, could easily absorb the costs of noncompliance.
Santiago

Subnational Interests and the Design of the NFPR

We found no evidence of involvement by Santiago’s large producers in the design of the NFPR, unlike their counterparts in Salta. Peasant movements did participate in discussions within the congressional committee that designed the NFPR, and the main author of the bill consulted the leader of MOCASE.\(^67\) However, Santiago legislators, in contrast to those in Salta, played no visible role in the treatment of the bill in Congress.\(^68\) The limited engagement of provincial actors is likely due to the fact that the NFPR bill was submitted to Congress in 2006, the year in which Santiago approved a provincial forest law amid social conflict produced by the chaotic expansion of its agricultural frontier.

Designing Santiago’s OTBN

Santiago’s OTBN was designed in the midst of social conflict and political change. As soybean prices rose in the early 2000s, the province’s high agricultural suitability and cheap land lured producers and investors. The area harvested with soybeans expanded more than six times, from 130,000 hectares in 1996 to 803,380 hectares in 2006.\(^69\) The unrestrained expansion of croplands compounded tensions between indigenous communities and peasants, who often lacked land titles, and large producers. According to 2002 census data, 48.3 percent of the farms in Santiago lacked formally delimited property boundaries and 93 percent of these farms were occupied by peasants without property titles. Threatened with eviction, peasant and indigenous groups engaged in collective action. The gubernatorial administrations of Carlos Juárez (1999–2003) and Nina Juárez (2003–4) of the PJ suppressed the social conflict and established questionable procedures to facilitate evictions.\(^70\) Following serious criminal charges against Nina Juárez and massive protests
demanding her resignation in 2004, President Néstor Kirchner ordered a federal intervention of Santiago, and the Juárez couple were arrested.

The intervention government of 2004–5 introduced important reforms. In response to demands from MOCASE, and acknowledging the severity of rural conflict triggered by “the arrival of extremely short-term profit maximizing economic agents, which resulted in indiscriminate forest clearings producing deep environmental damage,” it banned forest clearings; set up a crisis committee with producers, peasant organizations, and NGOs; created the Observatory of Land to help solve land disputes and issue titles to low-income owners; and promoted the revision of existing clearing permits.

The drafting of a provincial law began soon after the election of Gerardo Zamora (2005–13) of the Civic Front, an alliance of the Radical Party and PJ politicians that was elected by a small margin over the pro-Juárez PJ faction. To mitigate conflict that threatened his administration, Zamora inaugurated more spaces for dialogue with producer, peasant, and indigenous communities and launched a highly participatory process to debate a bill regulating land use and forest conservation.

The forest law would provide Zamora with critical tools to mitigate conflict around land tenure and chaotic forest clearings. It would also reduce legal uncertainty for agricultural and real estate investments. Even as deforestation continued during the ban, policymakers sped up the law for fear that the lack of a regulatory framework would discourage investments. As noted by one of the law’s designers, “The province wanted to solve the issue quickly to attract investments … [The law] was a priority for the governor.” Crucially, to reduce the likelihood of peasant mobilization, the law forbade clearings that could affect rightful occupants or peasants claiming titles to land.
The NFPR’s passage in 2007 forced the Zamora government to reopen negotiations on the design of an OTBN. Unlike in Salta, the presence of a strong conservationist coalition in Santiago reduced the governor’s discretion over the design, counterbalanced large producers’ pressures, and guaranteed a participatory design process. The Provincial Forest Council—presided over by the minister of production and formed by representatives from universities and professional associations—drafted a zoning map and regulations that were debated by 140 organizations in ten participatory workshops and in a public hearing.\textsuperscript{lxviii}

Intense pressure from conservationists pushed the government to establish regulations consistent with the NFPR.\textsuperscript{lxix} But Zamora also granted some concessions to large producers, resulting in only moderate consistency of the OTBN with the NFPR. “The priority [for producers] was to clear, clear, and clear,” said a key political operator; “producers were pro-deforestation. They wanted to clear 100 percent of the forest.”\textsuperscript{lxxx}

The most salient concessions were the insertion of “red and green dots” in the zoning map. Red dots granted high conservation value to areas inhabited by indigenous and peasants’ communities and created buffer zones against the expansion of agriculture to minimize its negative externalities (e.g., pesticides) even in areas without any forests.\textsuperscript{lxxi} Green dots were given to farms in yellow zones and authorized them to clear up to 20 percent of their surface for forage.\textsuperscript{lxxii} Affecting approximately 200,000 hectares—5 percent of provincial forests—this provision violated the NFPR’s rule against clearings in yellow areas. Another concession to producers, but one with no actual impact, was the ability to recategorize individual farms. Whereas recategorizations in Salta were left to the executive’s discretion with the aid of an advisory council of large producers, the law in Santiago subjected such decisions—which must be unanimous—to
a Forest Committee with representation of conservationist actors. As a consequence, no requests have ever been approved.

**Enforcing the NFPR in Santiago**

Governors facing strong producers and a conservationist coalition designed a strict OTBN but failed to enforce it. Conservationists managed to get a protectionist zoning map as well as tough sanctions on paper, but producers have largely gone unpunished for clearing illegally. Clearings eliminated close to 13 percent of Santiago’s forests between 2006 and 2016, and 71 percent of total deforestation between the approval of the OTBN in 2009 and 2016 took place in yellow and red areas.

Weak enforcement has been a clear concession to producers in Santiago. Although peasant organizations have denounced illegal deforestation, fines are significantly higher than in Salta, and the province developed some state capacity to monitor clearings. Compensatory funds were used to buy vehicles and monitor clearings with satellite imagery, and six preexisting offices were tasked with detecting clearings on the ground. However, fines are rarely issued and few offenders have ever been persecuted.

To illustrate the different weight of fines on paper across Salta and Santiago, we calculated the cost of a hypothetical illegal clearing of 715 hectares—an extension similar to the one analyzed in the case of Salta—in one of the most productive areas of Santiago, near the town of Quimilí. Santiago’s OTBN establishes that the baseline fine for clearings of more than 500 hectares should be of 4,000 liters of gas plus an additional charge of between 600 and 800 liters of gas per deforested hectare. Assuming an average of 700 liters per hectare plus the 4,000-liter baseline fine, anyone clearing 715 hectares of protected forest would have been fined 504,500 liters of gas,
approximately US$415,000 in 2011, equivalent to about 30 percent of the value of the cleared land.\textsuperscript{lxxxix} That amount is more than fourteen times the cost of a similar infraction in Salta.

To assuage conservationists for the lack of enforcement of strict regulations, governors have given them access to the state and resources from the NFPR fund for environmental services. Since the approval of the OTBN, the head of the provincial forest agency has been recruited from conservationist ranks; multiple policy councils have been established with representation from peasants and indigenous communities.\textsuperscript{xc} At the same time, 70 percent of federal funds to support the NFPR enforcement were allocated to projects that primarily targeted small producers.\textsuperscript{xci}

Conclusion

We have advanced a multilevel approach to understanding the enforcement of forest protection legislation in the Argentine Chaco provinces and the roots of institutional weakness more generally. In a decentralized system in which environmental rules are crafted at the national level and implemented by subnational authorities, we find that enforcement of the NFPR has been shaped not only by whether sanctions were effectively applied by subnational authorities, which is the focus of a broad literature on enforcement,\textsuperscript{xcii} but also by the design of both the national law and subnational regulations for its implementation. Ambiguities and opportunities for discretion embedded in the national law—lobbied for by the provincial interests that were the law’s primary targets—allowed subnational authorities to design provincial regulations in ways that undermined enforcement of the NFPR.

Whether provinces exploited such ambiguities against conservation depended on the power of large producers and the presence of conservationist interests. In Salta, large producers
successfully won regulations that allowed for “legal noncompliance.” In Santiago, the influence of large producers influence on the OTBN has been counterbalanced by a conservationist coalition. Producers have benefited from low enforcement of the NFPR in both cases, but in different ways. In Salta, noncompliance is legal or punished with minimal fines, whereas in Santiago, noncompliance with the NFPR is illegal and subject to sanctions that are onerous on paper but rarely applied.

Aside from showing the importance of multilevel politics, our study confirms the effect on enforcement of powerful and concentrated economic interests. Powerful large producers shaped the enforcement of the law even in the provinces where a conservationist coalition was present; conservationist coalitions achieved higher enforcement only in the absence of powerful large producers. As the case of Santiago illustrates, conservationists can influence the design of regulations but lack the capacity to secure enforcement in the presence of such powerful producer interests.

The multilevel approach here introduced can be applied to understanding cross-national variations in forest protection. Brazil’s 2012 Forest Code provides a contrasting case, as the enforcement of environmental legislation is the responsibility of national-level agencies. Thus large producers have focused their efforts on influencing national congressional debates. State-level producers’ associations not only organized and financed Brazil’s powerful rural caucus but also mobilized local producers to lobby national legislators and participate in public hearings during debates over the Forest Code. All subnational units are subject to the same regulations, and national enforcement agencies have been highly technocratic. As a result, and in contrast with Argentina, where subnational regulations and politics matter in shaping cross-provincial outcomes, the subnational arena plays a lesser role in Brazil.
Our multilevel approach offers a lens through which to analyze other policy domains, such as the implementation of abortion laws in the United States. In their struggle to limit abortion rights, conservative groups have failed to achieve legal changes at the federal level; they have lobbied more successfully at the subnational level for excessively strict zoning of clinics and regulations of doctors.\textsuperscript{xciv} State-level abortion regulations are generally more restrictive where conservative groups are better organized; as there is great variation in the weight of these actors subnationally, there is also wide variation in abortion access across states.

**Acknowledgements**

We would like to thank the editorial board of *Politics & Society* for their comments and suggestions. Matthew Amengual and María Victoria Murillo provided helpful feedback on earlier versions of this article. Sofia Elverdin and Martín Maximino assisted us with data collection, and Maria Gould provided editorial assistance.

**Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**Funding**

The research for this article was funded with a grant from the David Rockefeller Center for Latin American Studies, Harvard University.
References


Cámara de Diputados. 2006. Diario de Sesiones. November 22th (session 29), November 23th (session 30), November 29th (session 30).

Cámara de Diputados. 2007. Diario de Sesiones (March 14th (session 1), November 28th (session 17).


Cámara de Senadores. Diario de Asuntos Entrados, several years (2000-2014).

Cámara de Senadores. 2007. Diario de Sesiones. June 6th (session 7), August 22th (session 11), November 14th (session 13), November 21th (session 13).


---


**Newspaper Articles**


**Notes**


2 Eleven countries in Latin America passed forest legislation since 2000, including the top deforesters, Argentina, Brazil, Bolivia and Paraguay. www.globalforestwatch.org/countries.


Levitsky and Murillo, “Building Institutions”.


Thelen, How Institutions, 36.


Thelen, How Institutions.


Thelen, How Institutions.


E.g., CRESUD and Desde el Sur.


According to a key informant, “producers finance political parties…politicians’ campaigns” and “with the exception of the *Partido Obrero* [a minority left party] no politician here would oppose producers” (authors’ interview, not for attribution).


Authors’ interview, Salta, July 8, 2015.
40

51. Authors’ interview, Gustavo Paul, provincial secretary of environment, Salta, July 8, 2015.


55. Authors’ interview, former head of PROGRANO.


58. Authors’ interviews, Del Pla and Urtubey.


61. 152.4 million pesos between 2010 and 2015.

62. Authors’ interview, Paul.

63. Defensoría del Pueblo, “Informe”.

64. The president of Salta’s rural producers’ federation, Carlos Segón, recognized that illegal clearings continued in Salta because fines were extremely low and recategorizations were discretionary (“Carlos Segón: En Salta hay Desmontes Ilegales y Multas Irrisorias,” El Tribuno, September 1, 2014).


66. Authors’ estimates with data from Compañía Argentina de Tierras. Land prices correspond to August 2012.

67. Authors’ interview with Angel Strapazzon. Leader of MOCASE-VC, Ojo de Agua, July 14, 2016.

68. Only four out of seven legislators and one out of three senators were present when the law was voted on. Cámara de Diputados, “Diario de Sesiones”; Cámara de Senadores, “Diario de Sesiones.”

69. Secretary of Agroindustry-SIIA.
In 2000, eviction procedures upon request by alleged owners were simplified, despite the difficulty rightful occupants experienced in accessing property titles (Raúl Dargoltz, Oscar Gere and Horacio Cao, *El Nuevo Santiagueñazo* (Buenos Aires: Biblos, 2006), 94).

MOCASE was formed in 1990 to challenge land evictions. Its two components organize fourteen thousand families (De Salvo, *El MOCASE*).


* The Land and Production Committee and the Emergency Committee were established in 2006.

* Authors’ interviews with Publio Araujo, then provincial director of forests, Santiago, July 12, 2016; and Víctor Rosales, provincial director of forests, Santiago, July 11, 2016.

* Authors’ interview with Gelid.

* Authors’ interview, not for attribution.

* Consejo Provincial de Bosques, “Propuesta de OTBN.”

* Consejo Provincial de Bosques, “Propuesta de OTBN.”

* Authors’ interview, not for attribution.

* Authors’ interview with Araujo.

* Producers and their associations prioritized this demand in the public hearing.

* Authors’ interview with Rosales.

* Authors’ interviews with Rosales and Liz Saieg, Consultant, Santiago, July 12, 2016. According to a report by the National Comptroller, only one request has ever been filed (and rejected) (Auditoría General de la Nación (AGN), “Implementación de la Ley 26331, 2013-2016” (Buenos Aires: AGN, 2014, 84).

* MOCASE representative; Consejo Provincial de Bosques, “Informe de OTBN.”

* Authors’ interviews with Rosales, Araujo.


Assuming the highest possible price. Authors’ estimates based on data from Compañía Argentina de Tierras. Land prices correspond to December 2010. In Quimilí a hectare of forest was valued at between US$350 and $600 while a cleared hectare sold for between US$1200 and $2000.

Authors’ interview, MOCASE representative at the “Land Occupants Registry,” Santiago, July 13, 2016; provincial legislators (2013–2017) and indigenous and peasant leaders Cilda Santucho and Nélida Solorza, Santiago, July 12, 2016.


Holland, Forbearance.

Belén Fernández Milmanda, “On the Ballots, in the Streets or Under the Table: Agrarian Elites’ Political Strategies in Latin America” (PhD Dissertation, Cambridge, MA: Harvard University)