The Political Consequences of "Source Country" Operations: Evidence from Crop Eradication in Mexico*

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August 25, 2025

Abstract

When crafting law enforcement policy, drug-producing —or "source"— countries must adjudicate between domestic preferences and international pressure to curb supply. What are the political consequences of prioritizing supply-reduction? I analyze illicit-crop eradication in Mexico, where the army routinely incinerates fields to ensure continued US aid. Small, marginalized crop-growing communities regard eradication as an unjust federal policy. However, the importance of aid makes the policy inelastic. Because eradication policy is never on the electoral menu, I theorize that eradication decreases trust in the government and reduces turnout instead of engendering electoral backlash. To test, I create a novel eradication measure at the electoral precinct level using data from 50,000 satellite-detected fields and NASA's satellite-collected fire data. Using variation in location and timing, I show that eradication depresses turnout in federal elections and trust in the army. By divorcing domestic electoral politics from policy, US security aid may undermine accountability.

Word count: 9,970 words

*This study received approval from the University of Pennsylvania Review Board (858571). I am indebted to Julian Gerez, Beatriz Magaloni, Rajeshwari Majumdar, Justin Melnick, Pablo Querubín, Arturas Rozenas, David Stasavage, Tara Slough, Elisa Wirsching, and Hye Young You, participants in NYU workshops, PELA 2022, APSA 2022, and the ITAM 2023 Mexico City Political Economy Workshop for helpful comments and suggestions.

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Introduction

For over six decades, the United States has funded and promoted the destruction and interdiction of illicit substances abroad as part of its drug abuse prevention strategy (Bagley, 2015; Cedillo, 2021). Such "source country" counternarcotics tactics are motivated by the idea that decreasing the supply of imported drugs should mechanically reduce consumption (Tokatlian, 2015; Isacson, 2015). To incentivize foreign governments to carry out these costly operations, the United States conditions millions of dollars in aid to major drug-producing or drug transit countries on an annual certification extended only to those that "cooperated fully with the United States in drug control efforts" (Storrs, 2002). While source country operations are generally ineffective in reducing supply in the long-run (Moreno Sanchez, Kraybill and Thompson, 2003; Mejía, Restrepo and Rozo, 2015; Prem, Vargas and Mejía, 2023), drug-producing countries gain favor with the US by consistently carrying them out, thus facilitating their yearly certification.

In this paper, I analyze the domestic political consequences of a paradigmatic example of US-sponsored source country operations: illicit-crop eradication in Mexico. Extant research has conceptualized law enforcement policy as largely endogenous to domestic politics, responding to electoral incentives and preexisting social inequalities (Magaloni, Franco-Vivanco and Melo, 2020; González and Mayka, 2022; Visconti, 2020; Huber and Gordon, 2004; Holland, 2013). In contrast, the case of source country, or supply-reducing operations, emphasizes how foreign law enforcement priorities can shape the use of domestic coercive resources and dictate domestic security policy; drug production and trafficking in Latin America are closely monitored by the US, with particular emphasis on Mexico (DEA, 2021). Indeed, of the 22 countries the US government identified as major drug transit or illicit drug-producing nations in 2022, 17 are in Latin America or the Caribbean.[1]

While research has established that criminal violence broadly undermines trust in political institutions, especially police and judicial institutions in Latin America (Carreras, 2013; Blanco, 2013), less attention has been paid to how specific state security operations affect political behavior in targeted communities. Drawing from ethnographic and journalistic sources, I argue that people living in the often remote and marginalized illicit-crop-growing communities understand the destruction of their crops as the federal government behaving punitively and unjustly towards them by interfering with their already precarious well-

[1] See: "Presidential Determination on Major Drug Transit or Major Illicit Drug Producing Countries for Fiscal Year 2021." Available at: https://www.federalregister.gov/documents/2020/09/25/2020-21390/presidential-determination-on-major-drug-transit-or-major-illicit-drug-producing-countries-for.

being (Le Cour Grandmaison, 2021; Álvarez Rodriguez, 2021*b*). I adopt the conceptualization of institutional trust as the belief that a representative government agent will tend to act in one's best interest (Bhattacharya, Devinney and Pillutla, 1998; Hardin, 2003; Slough and Torreblanca, 2024) and argue that eradication operations reduce citizens' trust in the federal government.

I further argue that eradication depresses turnout instead of engendering backlash electoral participation from aggrieved residents. The importance of US security aid, coupled with the political weakness of crop-growing communities, excludes eradication from the menu of reformable policy. For the federal government, the financial benefits from receiving lucrative foreign aid outweigh any potential domestic political costs from angering and alienating the small and poor crop-growing communities. As an ex-presidential Chief of Staff explained, "In high-level decision-making, the bilateral relationship and systemic benefits were prioritized over micro-level impact. These impacts were recognized but managed as collateral damage."[2] Consequently, no federal political force has incentives to propose reforming counternarcotics policy and risk losing the foreign country's favor and financial backing. Unable to channel their discontent through vote choice and affect the implementation of counternarcotics policy, residents of eradicated communities are instead more likely to abstain from voting.

To test these hypotheses, I use novel satellite data on the more than 50,000 illicit fields detected by the Mexican army between 2013 and 2020. Because most destroyed fields are incinerated, I can combine the universe of satellite-detected illicit fields with NASA's historical satellite data on fires to identify the electoral precinct and the date of each eradication. I use variation in the army's decision to eradicate a field, conditional on detecting it, arising from exogenous time and capacity constraints, to estimate the effect of eradication on electoral participation. For army commanders, the choice of what specific field to incinerate out of all detected illicit fields in their area of operation depends on stochastic factors like detection timing, personnel availability, ongoing military operations, and other similar considerations. This randomness in field selection allows me to leverage the *ad hoc* geographic organization of army operations to compare participation in electoral precincts where the army detected but *did not* eradicate illicit fields to nearby, demographically similar precincts where it did eradicate.

The results show that destroying an illicit field before a federal election decreases turnout in an electoral precinct by almost two percentage points on average, or 10% of a standard deviation, compared to similar crop-growing precincts in the same military zone where fields were not eradicated. Additionally, using the

[2]Interview with the author, May 2025.

timing of survey collection for eight waves of an annual national-representative survey, I show that rural dwellers of municipalities eradicated before survey collection show less trust in the army than individuals living in comparable areas that were eradicated *after* survey collection. However, eradication did not seem to affect trust in law enforcement institutions unrelated to the federal government, nor trust in the army among *urban* inhabitants who do not personally observe crop eradication operations.

I show that neither migration nor population changes can likely account for the results. I also show evidence consistent with eradication not measurably affecting participation through lethal violence, and, using the collapse of poppy prices in 2017 as well as changes in nighlight data to measure profitability and economic activity, I rule out the possibility that the negative economic shock of field destruction can mechanically account for all the demobilizing effects of eradication.

To validate the identifying assumptions underpinning the empirical strategy, I show that field and precinct-level geographic characteristics that could be endogenously related to turnout are not predictive of the army's decision to eradicate a specific field. Further, I show that the results are robust when using official municipal-level eradication data published by the Mexican army. I test for the possibility that bias in the precinct-level measurement of eradication drives the result, retrieving little supporting evidence. First, I repeat the precinct-level analysis but define treatment as instances of fires unrelated to crop eradication. I find a *positive* and statistically insignificant relationship between these unrelated fires and electoral turnout, suggesting that random measurement error might understate the results. Last, I use a shorter intra-election panel of official geolocated data on eradication and compare it to the fire-based measure of predicted eradication to benchmark its accuracy. With a simulation, I find that the results hold even with a higher-than-expected proportion of misclassified units.

This paper contributes to the literature on the political economy of law enforcement by showing how citizens strategically withdraw from electoral participation when they learn that policy domains are insulated from domestic political pressure, emphasizing the domestic accountability implications of foreign security aid. Governments tailor security policy to serve their domestic constituencies (González, 2020; Soss and Weaver, 2017; Holland, 2013). However, the case of US-sponsored source country operations highlights how aid conditionality incentivizes recipient country governments to be responsive to foreign security preferences, even at the cost of adopting ineffective or domestically unpopular policies. In so doing, the US becomes another one of the government's principals alongside its domestic constituency, engendering a multiple-principal dynamic (Voorn, van Genugten and van Thiel, 2019; Dixit, Grossman and Helpman,

1997). Whether the source countries end up prioritizing the US or domestic voters when crafting policy will depend on the relative power of each of these two actors.

Additionally, this paper contributes to the growing literature on the behavioral and attitudinal consequences of law enforcement in the Global South. Recent studies have examined if trust-building policing practices improve security outcomes or citizens' evaluation of the police and government, finding mixed results (Blair et al., 2021; Magaloni, Franco-Vivanco and Melo, 2020). Parallelly, extant research on the over-policing of minority communities in the US has found that it demobilizes citizens (Lerman and Weaver, 2014; Burch, 2014) but may mobilize indirectly targeted individuals (Walker, 2019; Anoll and Israel-Trummel, 2019). However, little work has explored the political consequences of law enforcement in the violent democracies of the Global South, where police brutality is often considered the institutional norm (Magaloni and Rodriguez, 2020; González, 2020) and insecurity has been shown to undermine government's legitimacy (Visconti, 2020; Ley, 2018; Marshall, 2022; Blanco, 2013).

Finally, this paper contributes to research on the negative consequences of attempting to curb drug production and consumption using coercion. Partly as a response to the decades of US support for source country operations, producing countries have increasingly approached drug control from a security perspective (Loveman, 2006; Flores-Macías and Zarkin, 2021). Researchers have argued that this "securitization" of the "War on Drugs" may increase state-perpetrated violence and often fails to improve security outcomes (Dell, 2015; Castillo and Kronick, 2020; Magaloni and Rodriguez, 2020; Blair and Weintraub, 2023). However, the *political* results of counternarcotics law enforcement have only been explored as mediated by violence (Trejo and Ley, 2020) or in the mid and long-term (Flores-Macías, 2018; Osorio, Schubiger and Weintraub, 2021). In contrast, the short-term direct political implications have been overlooked.

US Security Aid as a Multiple Principals Problem

In traditional accounts of the dynamic production of policy, governments are electorally incentivized to be responsive to their domestic constituencies. For instance, observing crime and its punishment is posited to inform citizens about security policy and implementation, shaping their law enforcement preferences and participation decisions (Ley, 2018; Kronick, 2014; Visconti, 2020; Bateson, 2012). Citizens' preferences, in turn, influence which security policies politicians propose and enact; politicians cater to relevant constituencies by tailoring security policy to their tastes to secure their political support (Holland, 2013; Magaloni, Franco-Vivanco and Melo, 2020; González, 2020).

Conversely, conditional US aid creates a channel parallel to electoral accountability through which foreign policy preferences shape domestic policy. The US has devoted billions of dollars in security aid over the last six decades to support drug interdiction and illicit crop defoliation and eradication operations abroad (Vorobyeva, 2015; Teague, 2019). These operations are premised on the idea that, by destroying drugs before they enter the US market, drug consumption can be prevented or significantly reduced (Tokatlian, 2015).

Since 1986, the US has explicitly conditioned security aid on drug-producing countries' supply reduction efforts, requiring presidential certification of their cooperation and potentially withholding 50% of security assistance from non-compliant countries (Storrs, 2003). While sanctions were often waived for national security reasons, and although the certification process became somewhat laxer in 2002, it remains a yearly hurdle for drug-producing countries to navigate, with drug interdiction activities serving as critical evidence of compliance. Presidential Determinations continue to highlight this pressure, citing, for example, Colombia's "extraordinary growth of coca cultivation" in 2018[3] or expressing concern that "illicit drug crops have expanded over successive years in Colombia, Mexico, and Afghanistan" in 2019.[4]

Importantly, both the domestic accountability channel, whereby citizens' preferences shape the electoral incentives of the governments to adopt certain policy *and* the para-electoral incentives introduced by conditional US aid coexist for source countries. Thus, governments in source countries must tailor one blunt tool, security policy, to the tastes of two principals: their domestic voters and the US.

How do governments adjudicate between these two principals' interests? When agents have incentives to adapt policy to the taste of different actors, it generates a multiple-principal or common-agency dynamic. In such a context, service provision is complicated when the principals have divergent interests (Voorn, van Genugten and van Thiel, 2019; Dixit, Grossman and Helpman, 1997). If principals differ in their relative bargaining power and policy preferences, the agent will craft policy closer to the preferences of the stronger principal (Voorn, van Genugten and van Thiel, 2019).

I examine the domestic political consequences of this para-electoral responsiveness to a foreign actor engendered by aid conditionality when the foreign actor is a stronger principal than domestic constituents. Specifically, I explore the case of US-backed illicit-crop eradication in Mexico. While irrelevant for the vast

[3]Available at: https://www.federalregister.gov/documents/2017/09/28/2017-21028/presidential-determination-on-major-drug-transit-or-major-illicit-drug-producing-countries-for

[4]Available at: https://www.federalregister.gov/documents/2018/10/04/2018-21806/presidential-determination-on-major-drug-transit-or-major-illicit-drug-producing-countries-for

majority of the Mexican population, continuous eradication allows the government to garner favor with the US and guarantee a stream of conditional security aid. Yet, crop eradication has dire consequences for the small and marginalized communities that grow poppy and marijuana in the country. I explore how these communities, the weaker principal of the federal government, react politically to eradication.

This dynamic should generalize to other settings meeting three conditions: First, aid conditionality must create meaningful incentives for governments to prioritize foreign over domestic preferences. Second, the foreign principal and affected domestic constituencies must have conflicting policy preferences. Third, affected populations must lack sufficient political organization or electoral influence to counterbalance foreign pressure. Under these conditions, policy will systematically favor the stronger, foreign principal.

The Political Response to Eradication: Trust and Electoral Participation

Citizens crystallize attitudes toward the government partly through personal experiences with its agents. These interactions help shape expectations regarding future interactions and ultimately influence decisions about political participation (Soss, 1999; Soss and Weaver, 2017). Extant scholarship on the attitudinal consequences of experiences with law enforcement and crime shows that citizens learn about police from experiences with policing outcomes. These experiences, when unwanted, have the potential to reduce trust in law enforcement agencies and democracy and foster tough-on-crime security preferences (Visconti, 2020; Blanco, 2013; Carreras and Castañeda-Angarita, 2014; Slough and Torreblanca, 2024).

Following this extant research, I conceptualize institutional trust as the expectation that a representative agent of that institution will behave in a manner that results in a beneficial outcome for the citizen (Bhattacharya, Devinney and Pillutla, 1998; Hardin, 2003; Slough and Torreblanca, 2024). Applied to crop eradication, this framework suggests that experiencing these operations should undermine trust in federal institutions. Eradication signals to crop-growing communities that the government prioritizes foreign over local interests, generating expectations that future state interactions will prove harmful rather than beneficial. A teacher in a crop-growing Guerrero community illustrates this dynamic:

> "[Illicit-crop-growing] is a way of life. It was, it is, a need [...]. People have no money. [...] There is no money because the [federal government] does not have programs to support the communities." (Bolaños Guerra, Mendoza García and Bautista García, 2022, p. 303).

H1: Eradication depresses affected individuals' trust in the federal government and its law enforcement apparatus.

The behavioral consequences of eroded trust, however, should depend on the political opportunity structure within which citizens react. Political participation requires both motivation and viable channels for influence (Verba, Nie and Kim, 1978; Franklin, 2004; Cantú and Ley, 2017). Research shows that law enforcement experiences can either depress participation by generating fear (Ley, 2018; Berens and Dallendörfer, 2019; Lerman and Weaver, 2014) or spark mobilization when citizens believe electoral action can produce policy change (Ley, 2022; Bateson, 2012; Dorff, 2017).

Suppose political mobilization could lead to a meaningful change in the law enforcement policy of eradicating the supply of drugs. In that case, people aggrieved by source country operations might be motivated to participate more in politics to effect policy change. An example of this is the "Movimiento al Socialismo," or MAS movement in Bolivia, where the large communities of indigenous cocaleros used preexisting local organizations to mount a resistance that eventually gained power through electoral means (Anria, 2013).

Conversely, suppose affected citizens cannot mount a political opposition potent enough to countervail US pressure, as is the case for Mexico's small and marginalized illicit crop-growing communities. In that case, politicians have little incentive to propose or credibly commit to policy change that might endanger US financial support. Conditionality in US aid deeply molds the political opportunity structure by constraining aid-recipient governments' ability to abandon the policy of source country operations. Aid conditionality disincentivizes politicians from proposing reforms; sitting governments benefit economically and politically from their continuation despite the potential loss in political support from crop-growing communities. As a former presidential CoS phrased: "Certification wasn't just a formality: it was a thermometer of presidential credibility [...] It became a kind of 'annual exam' of responsible sovereignty."

I hypothesize that voters in affected crop-growing communities are unlikely to have the opportunity or the willingness to attempt to effect change to the policy through their electoral participation. Consequently, I expect source country operations to depress turnout in federal elections when the political opportunity structure remains fixed. An inhabitant of a crop-growing community in Guerrero illustrates the skepticism underpinning this expectation: "Who is going to help? The government? The government never helps" (Giménez Delgado, 2022, p. 225).

H2: Eradication depresses turnout in federal elections.

Crop Eradication in Mexico

Mexico has been a stage for source country operations since their inception in 1969, with a strong emphasis on eradicating illicit crops (Cedillo, 2021). Two illicit crops grow and are eradicated in Mexico: poppy and marijuana.[5]

Eradication policy is governed at the federal level (Delgado, 2021), and eradication itself is carried out by the army, a federal bureaucracy. The federal government, generally, and the army specifically, are perceived as an aggressive force by these populations due to their eradication efforts. An inhabitant of an illicit-crop-growing community in Guerrero describes this perception: "People were afraid of the federal agents because of that little plant" (Delgado, 2021, p. 21).

Recent qualitative research describes just how noteworthy crop eradication operations are for locals. Le Cour Grandmaison, Morris and Smith (2019*b*) narrate how illicit-crop fields were very visible and even close to the main street in town. At the same time, in her ethnography of a crop-growing community in Guerrero, Álvarez Rodriguez (2021*b*) remarks:

> "The most evident expression of the presence of the state is the eradication of poppy fields carried out by the Mexican army. Indeed, people often refer to the armed forces as 'government.'" (Álvarez Rodriguez, 2021*b*).

This visible federal presence generates fear and perceptions of injustice. Ethnographic research argues that illicit crop growers interpret the destruction of their fields as the government behaving punitively towards them, the weakest link in the drug-trafficking chain, instead of pursuing criminals that generate violence (Le Cour Grandmaison, 2021; Álvarez Rodriguez, 2021*b*). In her ethnography of a crop-growing community in Guerrero, Álvarez Rodriguez (2021*b*) succinctly captures the dynamic:

> "What local people find unjust is that the force of the law is applied —always— on the growers, never on those who make their living by extorting them."

Mexican officials acknowledge that eradication policy prioritizes US interests over domestic communities for political reasons. I conducted four elite interviews with high-ranking Mexican politicians in May 2025 to further ascertain the political logic of eradication operations from the source country's perspective[6].

[5] Unlike the Andean region, coca plants do not grow in Mexico. Coca requires acidic soil, high humidity, and particular mountain elevations found in the Andean region. Mexico's predominantly alkaline soils and different topography make large-scale cultivation difficult, though isolated experimental plantings have been occasionally reported.

[6] See Section Appendix C in the Appendix for details.

A former federal deputy explained: "They [the federal government] go after the poorest people. Neither heroin nor marijuana is a [financial] priority for organized crime anymore. It [eradication] is done to maintain good relations [with the US]." A former federal Senator described the logic as one of political inertia and expediency: "It's part of the script: we have to pay tribute to the flag, we have to play the bugle, we have to follow the regulations, well, we have to go burn crop fields." An ex-presidential Chief of Staff phrased it bluntly: "The US prevailed [over crop-growing communities]. Not meeting their [the US] expectations could lead to 'decertification,' which was a major geopolitical blow. The local community hardly had a voice in these foreign policy decisions."

This political logic persists despite the fact that illicit crop eradication does not significantly affect drug-trading organizations' (DTOs) profits. As schematized in Figure A2, illicit crop growers, often poor individuals in marginalized communities, own the crops and sell only the raw material directly to intermediaries, not drug trading organizations. Conversely, DTOs increasingly profit from synthetic instead of crop-based drugs like fentanyl (DEA, 2021).

The Army's Role in Eradication in Mexico

Since 2007, all eradication duties have been the responsibility of the Mexican army[7]. The army uses two techniques to eradicate illicit crops: aerial aspersion and manual incineration. The former involves fumigation from the air, while the latter requires soldiers to secure the identified field and cut and incinerate the plants.

Contrary to eradication efforts in the Andean region (Dion and Russler, 2008), the Mexican army overwhelmingly uses the manual technique. Between 2011 and 2020, it reports having destroyed 46,663 hectares of marijuana manually, 81% of all destroyed marijuana hectares. As for poppy eradication, the army reports having manually destroyed and incinerated 172,947 hectares, or 86.4% of the total. Specifically, in 2015 and 2018, the army destroyed 95% and 98% of all fields manually.[8]

[7]The navy sporadically eradicates illicit crops. Between 2013 and 2020, it was responsible for 2% of all destroyed poppy or marijuana hectares.

[8]Source: Freedom of information request folio 0000700198921.

Data

I draw on official data from the National Electoral Authority (INE), the National Institute of Geography and Statistics (INEGI), and data I obtained from the Mexican army. Municipal-level data on illicit-crop eradication operations come from official statistics published by the Mexican army. Additionally, using a freedom of information request, I obtained a list of all satellite-detected illicit-crop fields identified by the army between February 2013 and June 2021, which I use to measure eradication at the electoral precinct level. Last, I use several waves of a national survey to measure changes in institutional trust. I explain each data source in more detail in the following subsections.

Outcomes of Interest

To measure trust in government institutions, I look at institutional trust responses from eight waves[9] of the yearly National Survey of Crime Victimization and Public Safety, ENVIPE, (INEGI, 2019) which asks respondents to rate their trust for several institutions related to law enforcement.

For turnout, I collected data on the four federal deputy elections that took place after the military took over eradication duties. I focus on federal deputy elections for both substantive and practical reasons. Substantively, unlike presidential elections, which are often shaped by personalistic dynamics, deputy elections offer repeated, comparable observations of political engagement with the federal government. This is especially so given that many voters don't know who the candidates are, making these elections more abstract reflections of broader political attitudes. On the practical side, deputy elections are held every three years, unlike other federal elections that run on a six-year cycle, which allows me to include more electoral events in the analysis.

I rely on turnout data at the municipality and the electoral precinct levels. Electoral precincts are the basic geographic unit of Mexican elections. Each precinct has at least 100 voters, at most 3,000, and an average of about 1,200 registered voters (Challú, Seira and Simpser, 2020). In rural communities, a single precinct can often straddle the entire settlement, making that level of analysis well-suited to analyze the electoral consequences of highly localized eradication operations. Municipal elections might or might not be concurrent with federal elections since local elections follow their own calendar. I use the data published by Magar (2018) to identify municipalities with concurrent local elections to account for the increased levels

[9] From 2013 to 2021, excluding 2020 because of COVID-19.

of turnout they may produce. Last, I exclude municipalities that select their authorities via indigenous self-governance (usos y costumbres) because their electoral processes and political structures differ substantially from the standard party-based system (Magaloni, Gosztonyi and Thompson, 2022). Given the location of illicit fields, this culling excludes only 24 precincts from the sample.

Crop eradication

For information on the share and location of destroyed crops, I rely on two data sources based on official information from the Mexican army. The first consists of the type, number, and size of all illicit fields manually destroyed by the army per year, month, and municipality. These data were collected, cleaned, and published by the Mexican NGO MUCD (2021) (México Unido Contra la Delincuencia). The smallest geographic unit for which the Mexican army reports crop eradication operations is the municipality, but municipalities can be large, whereas illicit-crop-growing communities are often small and in rural areas. Using a freedom of information request to get around the data limitations, I obtained a novel data set that contains the latitude and longitude of all poppy and marijuana fields detected by the army using satellite images between 2013 and June 2021. Besides the coordinates and the date of detection, these data report the number of harvested hectares per field and whether the army validated the detected field as a true positive or a false positive.

Figure 1 shows the date and number of illicit-crop fields detected via satellite per crop type. The Mexican army detected and destroyed poppy and marijuana fields during the entire period, but, as the figure shows, starting in 2015, poppy fields made up the majority of detected and destroyed fields. Since the data includes the latitude and longitude, I can match each satellite image to an electoral precinct and compute the number of satellite-detected fields in each electoral precinct each month.

The army does not report whether or not it later eradicated the fields it detected. Therefore, to identify eradicated fields and date their destruction, I make use of the fact that the army incinerates most of the fields it destroys. I compare the geographic data on field detection with historical satellite data on fires[10], provided by the Fire Information for Resource Management System (FIRMS) (Giglio et al., 2018). I classify fields as "eradicated" or "not eradicated" with the following algorithm:

1. Construct a 2km buffer around the coordinates of the illicit field. The buffer size accounts for measure-

[10]Following Hassan and O'Mealia (2018) I use the Moderate Resolution Imaging Spectroradiometer (MODIS) data.

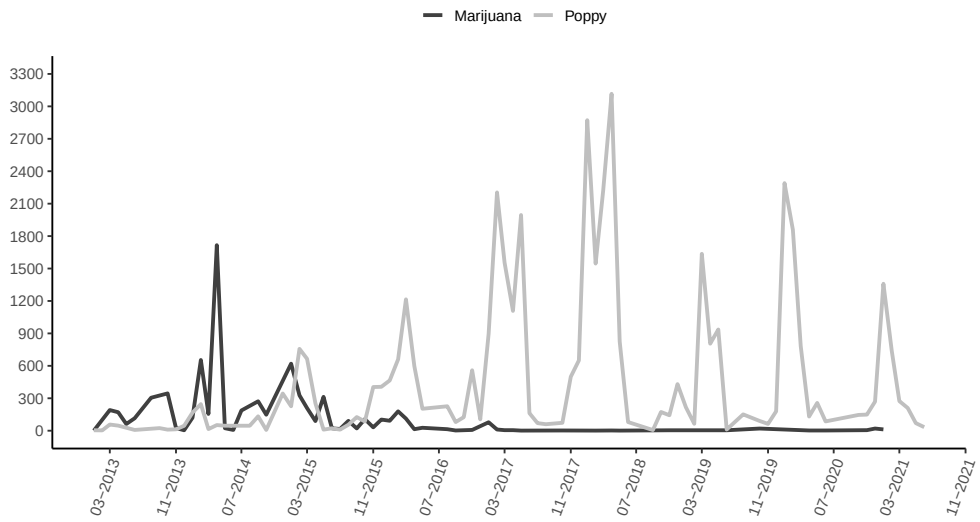

Figure 1: The figure shows the monthly count of illicit fields detected via satellite, as reported by the Mexican army, according to crop type. Data spans from February 2013 until June 2021. The count excludes fields that the army determined to be false-positives.

ment error in the satellite fire data, which reports the center of a 1km pixel and potential differences between the field coordinates and the actual eradication location (for instance, soldiers may gather plants to the side rather than the center of a field).

2. Keep all high-quality fires recorded within the 2km buffer for the three months after the illicit field was detected. Three months is the most stringent specification since fields can be harvested at most three times per year (Le Cour Grandmaison, Morris and Smith, 2019*b*), or every four months.

3. If any fires were recorded within the 2km buffer in the specified time window, mark that field as eradicated.

4. If only one fire occurred inside the 2km buffer within three months, assign the eradication date as the fire date. If multiple fires meet the criteria, assign eradication to the date of the fire geographically closest to the original field coordinates.

Out of the 53,509 illicit fields, 17,701 were detected in 2015 or 2018, the two federal election years with overlapping satellite imagery collection. The algorithm predicts that the army destroyed 16.6% of those 17,701 fields within three months of detection, 2,757 fields within three months of the election, and 187 more six-to-four months before. Further, it predicts eradication to have taken place in seven different states,

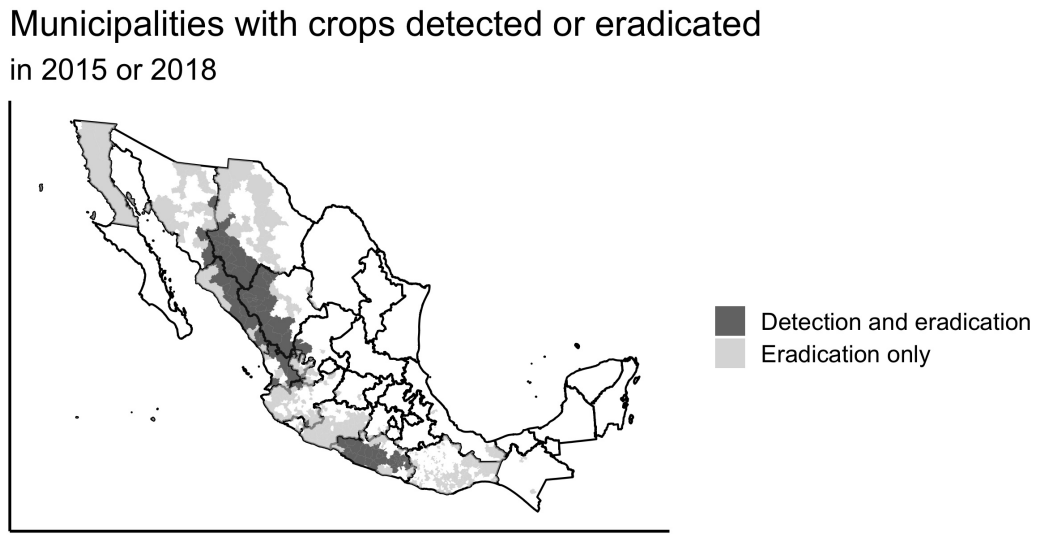

Figure 2: Map marks municipalities where the Mexican army reports having conducted eradication operations in either 2015 or 2018, as well as municipalities that had at least one positive satellite-detection of illicit-crop fields.

58 municipalities, and 286 unique electoral precincts; These 58 municipalities are concentrated in the two areas of most intensive illicit-crop harvesting: the state of Guerrero in southwest Mexico and the so-called "Golden Triangle," formed by the states of Sinaloa, Durango, and Chihuahua in the northwest. In the next section, I discuss this measure's validity in-depth and provide several placebo tests to corroborate that it is indeed capturing eradication by incineration.

Constructing a measure of illicit field eradication using automated satellite images instead of ground patrols ensures that the treatment is orthogonal to bureaucratic capacity and criminal activity. However, it is important to note that the army uses additional data sources to detect illicit-crop fields, like ground patrols or intelligence from other institutions. Consequently, the universe of municipalities where the army reports eradicating illicit-crop fields is larger than the universe of municipalities where it detected illicit fields via satellite. Figure 2 shows the municipalities where the army reports having eradicated illicit crops manually, as well as municipalities where it detected illicit fields via satellite during 2015 or 2018. Table A5.1 reports basic summary statistics. While the army reports at least one eradication operation in 433 municipalities, 91.6% of all hectares eradicated in 2015 or 2018 were destroyed in one of the municipalities with satellite-detected illicit fields, making the overlap between the two measures of eradication large.

Empirical Strategy

The following section presents the empirical strategy used to measure the effect of eradication on institutional trust. Additionally, it explains the two empirical strategies to measure the effect of eradication on turnout.

Trust

I test the effects of illicit-crop eradication on institutional trust by looking at responses from eight waves[11] of a yearly national representative survey, ENVIPE. The analytical leverage in this design stems from the temporal variation in the timing of survey collection relative to eradication operations within the same calendar year for a given municipality. I leverage the timing of the survey to compare self-reported attitudes about institutions in municipalities where the government eradicated illicit fields before survey collection began to the attitudes of respondents living in municipalities where the government eradicated fields *after* the survey was collected. All eight waves of the ENVIPE were collected by the National Institute of Statistics (INEGI) between March and April, with some municipalities surveyed in the first month and others in the second, depending on INEGI logistics.

I pool the eight waves of the survey and keep respondents who live in a municipality where the army reports having eradicated at least one illicit field during the year the survey was collected. Since illicit crops are grown in rural and remote areas, I focus on respondents living in rural communities inside these eradicated municipalities for the main analysis, later using urban respondents (unlikely to have witnessed eradication) as a placebo. After pooling, I have data from 25,287 unique respondents from rural communities in 323 different municipalities across 25 Mexican states.

I fit a series of models with the following specification:

$$Y_{it[m]} = \gamma EradicationBefore_{tm} + \beta \boldsymbol{X_{it}} + \mu_t + \theta_m + \varepsilon_{it[m]} \tag{1}$$

Where $Y_{it[m]}$ is respondent i's self-reported attitude towards a state institution in year t for a respondent living in municipality m. $EradicationBefore_{tm}$ is a dummy that takes the value of 1 if municipality m was eradicated between January and April of year t and zero if it was eradicated at a later month. μ_t

[11] From 2013 to 2021, excluding 2020 because of COVID-19.

are year fixed-effects, θ_m are municipality fixed-effects, and $\boldsymbol{X_{it}}$ are respondent-level sociodemographic characteristics. Robust errors are clustered at the municipality level.

The design is effectively a difference-in-differences, and thus, the central assumption required to interpret γ causally is parallel trends; that respondents living in municipalities eradicated shortly before survey collection would have followed the same trend in institutional trust as respondents in municipalities eradicated later in the year. Additionally, the nested design requires the assumption that sample composition is not affected by the treatment itself — or that early eradication doesn't systematically alter which types of individuals respond to the survey. Substantively, the former assumption is highly plausible in this context since eradication decisions (made by the army) are very likely independent from survey timing (determined by the statistics institute), as the two institutions are completely unconnected. The latter assumption about sample composition is evaluated at length in the Appendix Section A7.3, where I find that eradication timing does not significantly alter the demographic composition of survey respondents.

Crop eradication: Electoral precinct

The first empirical strategy to measure the effect on turnout is motivated by the observation, corroborated in an interview with a high-ranking armed forces commander of such operations, that conditional on detection, the army's decision to target a given field depends on stochastic factors like other ongoing operations, personnel availability, or similar organizational considerations unrelated to political participation. Intuitively, this empirical strategy compares participation in eradicated electoral precincts to participation in similar precincts that could have been eradicated because they had illicit fields growing but were not. While eradication operations are certainly concentrated in areas with significant crop-growing activity, my research strategy leverages variation in which specific detected fields are selected for eradication within these crop-growing regions.

I leverage the army's *ad hoc* geographic organization to further refine the causal contrast. Mexico organizes its army around military regions, each encompassing several military zones. These military regions and zones imperfectly follow the country's political geography: a region can encompass two to five states, while a military zone can straddle municipalities belonging to one, two, or three distinct states.[12] Using a series of freedom of information requests, I assigned each municipality to a military region and zone.[13]

[12] Conversely, a single state can be composed of one, two, three, four, and even five military zones, like the state of Chiapas.

[13] Figure A1 in the Appendix shows the result.

Military zone commanders, who can be assigned and reassigned discretionally by the president, are responsible for all operations, including eradication (SEDENA, 2012). I include $year \times zone$ fixed-effects in all precinct-level specifications to guarantee that the comparisons are between electoral precincts in the same military zone, the same year, and overseen by the same military zone commander. The identifying assumption requires that, conditional on detection and field location, which specific fields the army chooses to eradicate is orthogonal to observed or potential electoral turnout.

Electoral precincts' boundaries are not politically salient. However, one worry is that political considerations could impact the army's decision to eradicate certain *municipalities* more or less intensively. Specifically, since the army is a federal bureaucracy, we could worry that municipalities headed by copartisan mayors would be spared eradication more often. To account for this potential dynamic, I control for whether the electoral precinct is in a municipality where the mayor is the president's copartisan. Additionally, I control for concurrent municipal elections.

I fit the following fixed-effects regression:

$$Y_{pt[z]} = \gamma Predicted_{pt} + \beta \boldsymbol{X}_{pt} + \mu_{t \times z} + \varepsilon_{pt[z]} \tag{2}$$

where $Y_{pt[z]}$ is the turnout rate of electoral precinct p, in military zone z, during election year t, $Predicted_{pt}$ is either a dummy variable that takes the value of 1 if there is any pre-election predicted eradication in precinct p and 0 if illicit fields were only *detected*, or the $(log + 1)$ count of fields or hectares predicted to have been manually eradicated in that electoral precinct that year. $\mu_{t \times z}$ are year $\times$ military zone fixed-effects. X_{pt} is a vector of pre-treatment covariates, including an indicator of whether or not there were concurrent municipal elections and whether the mayor was the president's copartisan. Additionally, all models with "full" covariates include the $(log + 1)$ number of illicit fields detected in adjacent precincts in year t and an Inverse Covariance Weighted index (ICWa) (Anderson, 2008), constructed from a battery of demographic characteristics taken from the 2010 census. Instead of including all covariates separately, the index summarizes orthogonal variation from all variables as efficiently as possible. In this setting, the decrease of statistical power from including all the covariates would not be compensated by the extra information since most demographic characteristics are highly correlated. Section A5.5 in the Appendix explains the index construction in detail and reports consistent results when including sociodemographic characteristics additively. Finally, robust standard errors are clustered at the electoral-precinct level. While military

zones are the organizational units that structure the army's operations, treatment is assigned at the field level. Clustering standard errors at the precinct level is thus conservative.

Crop eradication: Municipality

My second empirical strategy tests the same mechanism with official municipal-level data on eradication, published monthly by the Mexican army. I look at the turnout for four federal elections after the army took over eradication responsibilities: 2009, 2012, 2015, and 2018. My sample includes all municipalities where the army eradicated fields in a given year. For comparability with the precinct-level results, I exclude from the sample municipalities that select their authorities via Indigenous self-governance. The final sample includes data from 596 municipalities, where 96% of the hectares destroyed by the army were located.

The variation I leverage for identification comes from the timing of field eradication. I compare municipalities with fields manually eradicated *before* the election to turnout in places eradicated *after* the election took place, but within the same year. The central identifying assumption is that, absent treatment, municipalities eradicated before the election would have experienced the same trends in electoral turnout as those eradicated after the election. In other words, after accounting for time-invariant municipal characteristics through fixed effects, the timing of eradication relative to the election is assumed to be uncorrelated with other time-varying factors that might influence turnout trends.

I estimate the following two-way fixed-effects model:

$$Y_{mt} = \gamma EradicationBefore_{mt} + \mu_t + \theta_m + \varepsilon_{mt} \tag{3}$$

where Y_{mt} is the turnout rate in municipality m during election year t and $EradicationBefore_{mt}$ is a dummy variable that takes the value of 1 if the army eradicated illicit fields manually in year t and municipality m during the months before the federal election and 0 if it eradicated fields only after the elections, or the (log+1) count of fields or hectares eradicated manually in the same period. μ_t are year fixed-effects, and θ_m are municipality fixed-effects. Robust standard errors are clustered at the municipality.

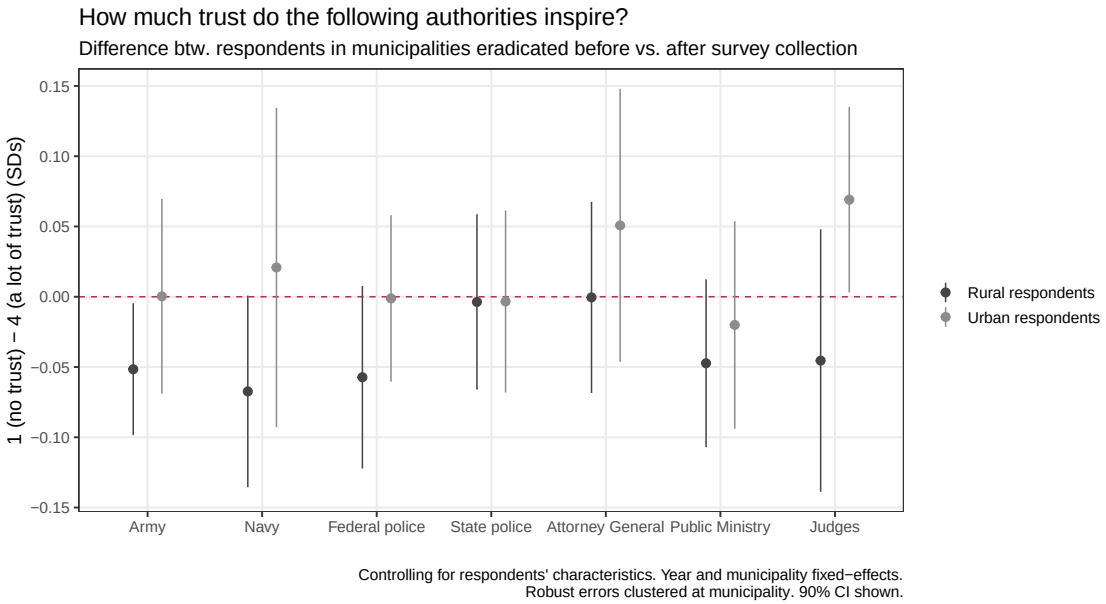

Figure 3: Figure plots the 90% confidence intervals of the difference-in-means ($EradicationBefore_{t,m}$ in specification 3) in self-reported trust in each authority for respondents living in rural areas of municipalities eradicated before vs. after the survey was collected. All specifications include year and municipality fixed-effects and controls for respondent-level characteristics (age, sex, and educational attainment). Robust errors are clustered at the municipality level.

Results

Trust

First, I look at how eradication affects people's self-reported level of trust in law enforcement and justice institutions by drawing on the information collected in the yearly survey, ENVIPE. The results for rural respondents reported in dark gray in Figure 3, suggest that eradication in rural areas dampened people's trust in federal law enforcement corporations generally. Reported trust in the army, the navy, and the federal police is around .05 standard deviations lower when respondents lived in a municipality eradicated before survey collection. However, only in the case of the army, the difference is statistically significant at conventional levels. For the rest of the non-federal or non-policing agencies there is no difference in trust.

Next, I use respondents from *urban* localities as a placebo. Since illicit crops are grown in remote areas, urban respondents are less likely to witness eradication. I test for differences in trust with this different sample and report the results in light gray in Figure 3. Reassuringly, only the coefficient for trust in judges is statistically significant in the case of urban respondents- and positive in magnitude- despite the sample being more than twice as large as those conducted with rural respondents. Further, the estimates' magnitude

for differences in trust in the army or other federal policing agencies is precisely zero or very close to zero.

While survey evidence indicates that people exposed to eradication then trust the army less, one possible threat to identification is that people in communities eradicated earlier in the year are generally less trusting and thus participate less in elections. I check for this possibility by comparing their responses to self-reported trust in family and neighbors and report the results in Figure A8. I find no significant difference in these measures, and the point estimates are very close to zero. Additionally, I consider whether changes in the composition of the sample or differential missingness due to eradication instead of changes in respondents' trust could explain the decrease in trust and report the findings in Section A7.3 in the Appendix. Eradication before survey collection predicts neither increased missingness nor changes in the demographic characteristics of rural survey respondents. Results suggest that the observed reduction in trust after eradication is not an artifact of differences in sample composition or selective non-response.

Crop eradication: Electoral precinct

I present the precinct-level results from specification (2). As discussed in the previous section, the contrast is between electoral precincts where the army only detected illicit fields and precincts with detected fields and predicted eradication, conditional on them being demographically similar and in the same military zone the same year.

Columns 1 and 2 in Table 1 show the estimated difference-in-means in turnout between electoral precincts with at least one predicted eradication before federal elections and precincts with only illicit-field detection but no eradication. On average, eradication decreases turnout between 1.7 (the preferred specification) and two percentage points, or between 10% and 12% of a standard deviation. Additionally, columns 3 and 4 show that a one-unit increase in the log number of eradicated hectares decreases turnout by .87 percentage points.

To contextualize the magnitude of the effect: going from no eradication in a precinct to 23.5 destroyed hectares, the median amount for the treated group, is estimated to reduce turnout by $[ln(23.5+1)-ln(1)] \times -.87 \approx -2.75$ percentage points. Similarly, columns 4 and 5 show that a one-unit increase in the log number of eradicated fields before an election decreases turnout by around 1.5 percentage points. Alternatively, going from no eradication in a precinct to 13 destroyed fields, the median amount for the treated group, is estimated to reduce turnout by $[ln(13+1)-ln(1)] \times 1.55 \approx -4.1$ percentage points. That is equivalent to

a decrease of almost 25% of a standard deviation.[14]

	Turnout					
	(1)	(2)	(3)	(4)	(5)	(6)
Any eradication (dummy)	−1.974*	−1.696+				
	(0.936)	(0.979)				
Destroyed hectares (log)			−0.866*	−0.868*		
			(0.336)	(0.389)		
Destroyed fields (log)					−1.579**	−1.550**
					(0.518)	(0.546)
Controls:	Basic	Full	Basic	Full	Basic	Full
Fixed-effects: Year × Military Zone	Yes	Yes	Yes	Yes	Yes	Yes
Num.Obs.	1039	1039	1039	1039	1039	1039
R2 Adj.	0.397	0.397	0.399	0.399	0.401	0.401

Two-tailed p-values: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$

Table 1: Illicit-crop eradication and turnout in federal elections for deputies: precinct-level results. The dependent variable measures turnout as the share of all registered voters in the electoral precinct. Robust standard errors clustered at the electoral precinct level.

Measurement concerns

One worry when interpreting the results in Table 1 is that the effects capture something unrelated to eradication because treatment is predicted instead of observed. I conduct several ancillary analyses to validate the measure.

First, I use the 8.1% of the satellite detection data observations that the army labeled false positives. I classify these "false" fields as eradicated using the same algorithm described in the previous section and estimate the effect of their "destruction" on turnout. One way of conceptualizing the effect of "false field eradication" on turnout is as the effect of wildfires or controlled fires in places *without* illicit fields. Table 2 reports the results of this placebo test. Suppose predicted eradication in true illicit fields systematically captures false positives. In that case, the effects reported in Table 1 should be similar in direction and magnitude to what we observe in columns 1-2 of Table 2. However, the estimated difference-in-means effect of eradicating any "false" field on turnout is *positive* and not significant, while the estimated effect of destroying an additional log field is much smaller in magnitude and statistically insignificant. The placebo test is particularly stringent if false positives are more common in places suitable for illicit-crop-growing. Although the magnitude of the standard errors in column 2 alerts us that the analysis is underpowered, back-

[14]Table A5 in the Appendix presents results using untransformed counts. The findings remain consistent.

of-the-envelope calculations using the estimated standard error of the simple difference-in-means estimator show that this specification is precise enough to detect effects of only $0.047 \times 2.8 = 0.13$ percentage points.[15]

	Turnout	
	(1)	(2)
Any false-positive "eradication" (dummy)	0.031	
	(0.047)	
False-positive fields "destroyed" (log)		−0.365
		(1.504)
Controls:	Full	Full
Fixed-effects: Year × Military Zone	Yes	Yes
Num.Obs.	1039	1039
R2 Adj.	0.397	0.397

Cluster-robust standard errors shown in parentheses.
+ p < 0.1, * p < 0.05, ** p < 0.01

Table 2: False-positive eradication and turnout at the precinct level. The dependent variable is turnout in federal elections for deputies, measured as a share of all registered voters. The Independent variable is the (log+1) number of illicit fields, later determined to be false positives, that the algorithm predicts were eradicated in each electoral precinct. Robust standard errors clustered at the electoral precinct level.

Second, I contrast the algorithm's results, aggregated at the municipality level, with the official municipal-level data published by the army. I then check for municipalities where the algorithm predicts eradication during months when the army does not report any. Predicted destroyed fields in municipalities during months when no official eradication occurred accounted for only 12.2% and 11.8% of all predicted eradicated fields in 2015 and 2018. This low percentage of false positives does not account for incorrectly dated true positives: fields destroyed in these municipalities but on the prior or subsequent month from the one predicted by the algorithm.

Last, I simulate the sampling distribution of the most imprecisely estimated outcome, the difference-in-means estimator, under different assumptions of the "true" proportion of misclassified observations. Section A5.7 in the Appendix explains the simulation in detail. Results show that more than 45% of treatment units or more than 40% of control units would need to be misclassified for misclassification to explain away the weakest effect. To test whether this level of misclassification is plausible, I obtained official geolocated data from the Mexican army on illicit field destruction data for 2019 and 2020 to benchmark the predicted eradication measure.

[15] Assuming 80% power for a 95% confidence interval.

I compare the measure of predicted eradication with geolocated reported eradication for this period and estimate the proportion of false positives and negatives included in the data. Comparing my measure of predicted eradication with the army's official reports, I find that 9.45% of control units were possibly misclassified as treatment, and 22.8% of treated units were possibly misclassified as control, not enough to overturn the results according to the simulations.[16]

Selection concerns

The identifying assumption for the precinct-level results is that precincts, where the army detected but did not destroy illicit fields, are a suitable counterfactual to precincts where the army destroyed illicit fields, conditional on them being demographically similar and in the same military zone during the same year. The results would be biased if electoral precincts where the army eradicated fields were systematically different in ways that covaried with political participation. Specifically, one might worry that poorer, less well-connected precincts within military zones are more likely to get eradicated and that these precincts, in turn, are less likely to participate politically.

However, it is difficult to think of the army adjusting its behavior as a function of the arbitrary geographic delineation of electoral precincts. First, the national electoral authority draws all the federal electoral precincts. Once drawn, the only two adjustments the Federal Electoral Authority (INE) makes are to remove electoral precincts or join them with adjacent precincts when population sizes change too drastically. Consequently, precincts often were drawn decades before and straddle multiple communities, making them independent of political dynamics.

Alternatively, we could worry that when deciding between eradicating similar fields, army soldiers could systematically choose to eradicate more accessible fields that imply less work for them. If political participation covaries in the geographic characteristics, then field-level selection could explain part of the results. To discount this possibility, I test how well geographic characteristics predict eradication. I model the probability θ that illicit field i in electoral precinct p was counted as eradicated as follows:

$$\theta_{i[p]} = g^{-1}(\gamma DistanceToArmy_i + \beta \boldsymbol{X}_p + \mu_t + \theta_z)$$

[16] I cannot distinguish fields that were detected via satellite and later eradicated from fields that were detected with other methods with the geolocated army data on eradication. Thus, the proportion of false negatives is likely overstated.

Where $DistanceToArmy_i$ is the distance from illicit field i to the corresponding military zone's headquarters in decimal degrees, X_p is a vector of precinct-level covariates, including the proportion of precinct p's surface area that is occupied by grassland, agriculture, forest, and human settlements, and a dummy variable that takes the value of one if any paved roads pass through the electoral precinct and zero otherwise, μ_t are year fixed-effects, θ_z are military zone fixed-effects, and $g(.)$ is the logistic link function.

Table A8 in the Appendix shows this model's confusion matrix. Geographic characteristics do a very poor job of predicting eradication: only 0.13% of all eradicated fields are correctly predicted to be eradicated, lending credence to the identifying assumption.

Crop eradication: Municipality

Next, I present the results of specification (3). Recall that all municipal-level analyses use official monthly data on crop eradication reported by the army. Thus, this specification should help assuage concerns that the construction of the precinct-level eradication measure drives the results.

Column 1 in Table 3 shows the estimated effect of the army doing *any* manual eradication on turnout relative to no eradication before the elections. On average, eradication before the election, relative to eradication after, is estimated to decrease turnout by 1.8 percentage points, or 12.4% of a standard deviation (p-value 0.057). Columns 2 and 3 show the estimated marginal effect of a one-log unit increase in the number of eradicated fields and hectares, respectively. The effects are estimated more precisely as expected from the added variation of continuous measures. A one-unit increase in the log number of eradicated fields is estimated to decrease turnout by around .5 percentage points, while a similar increase in the log number of eradicated hectares decreases turnout by almost one percentage point on average. To contextualize the magnitude of the effects, going from no fields destroyed prior to the election to the median number of destroyed fields and hectares in the treated group, 18 and 2.6, respectively, is expected to decrease turnout by $[ln(18+1) - ln(1)] \times -.494 \approx -1.45$ percentage points and $[ln(2.6+1) - ln(1)] \times -.981 \approx -1.26$ percentage points.

Including year and municipal fixed-effects guard against time-invariant unit-specific confounders or year-specific confounders common to all municipalities. Additionally, by comparing municipalities eradicated before an election to those eradicated after, the design plausibly accounts for time-variant unobserved confounders common to all *eradicated* crop-growing municipalities. However, for columns 2 and 3 in Table 3 to recover the average effect of a marginal increase in the intensity of eradication given the continuous

	Turnout (1)	Turnout (2)	Turnout (3)
Any eradication (dummy)	−1.763+		
	(0.927)		
Manually er. fields (log)		−0.494*	
		(0.233)	
Manually er. hects. (log)			−0.981**
			(0.344)
Fixed-effects: Municipality	Yes	Yes	Yes
Fixed-effects: Year	Yes	Yes	Yes
Num. Obs	1253	1253	1253
R2 Adj.	0.660	0.661	0.663

Two-tailed p-values: + $p < 0.1$, * $p < 0.05$, ** $p < 0.01$

Table 3: Illicit-crop eradication and turnout in federal elections for deputies: municipal-level results. The dependent variable measures turnout as the share of all registered voters in the municipality. Robust standard errors clustered at the municipality level.

nature of the treatment, effects must be constant across groups, periods, and dosages (Callaway, Goodman-Bacon and Sant'Anna, 2024). I fit the same two models with a flexible ten-knot cubic regression spline and plot the results in Figure A3. This exercise provides evidence that the effects are plausibly constant across different dosages for the log number of eradicated hectares; however, the effects across dosages are heterogeneous for the log number of eradicated fields. While $\hat{\gamma}$ will still recover a causal quantity in the absence of time-varying confounders, precincts in military zones with less cross-sectional homogeneity treatment assignment will contribute more variation to the estimation.

Alternative Explanations

Income

Thus far, results show that eradication decreases turnout and trust in the army. While the hypothesized mechanism hinges on citizens' changes in beliefs and electoral incentives, a reasonable concern is that the loss of income could mechanically depress participation. Extant research on the correlates of income and voting in Latin America finds a null or weak association between the two (Carreras and Castañeda-Angarita, 2014). However, the economic interdependence of illicit crop-growing towns[17] makes the income channel essential to test.

[17]For instance, Le Cour Grandmaison, Morris and Smith (2019*b*) estimate that 75% of individuals in a crop-growing town in Nayarit and 95% in a crop-growing town in Guerrero profited directly from illicit harvesting.

To test, I first leverage the 2018 collapse of the price of poppy due to the increased demand for fentanyl. While poppy was selling for record prices between 2014 and 2017, its price fell by around 50% in 2018 (Le Cour Grandmaison, Morris and Smith, 2019*a*; Sáez, 2024). Thus, the lost income from an eradicated field in 2015 was significantly higher than the lost income from one eradicated just three years later. Section A6.1 in the Appendix describes the analysis in detail. The estimated effects of eradication on turnout are of comparable magnitude both in 2015 and 2021. Further, contrary to what we would expect if the loss of income drove the effects, the point estimates for 2015 are less negative than in 2018 for both cases, suggesting that the negative economic shock of eradication cannot explain the results, at least in isolation.

To probe the income channel further, I leverage precinct-level luminosity data (Magar, 2021), a measure often used as a proxy for economic activity (Henderson, Storeygard and Weil, 2012). I report the results in Section A6.1 in the Appendix. Results show no significant differences in luminosity between eradicated and non-eradicated precincts two years before or after treatment. While a coarse measure, this null effect aligns with the ethnographic understanding of crop-growing economies: a process undertaken in remote and marginalized locations that requires time and intermediaries to convert into tangible wealth. These findings further suggest income is not the main channel through which eradication affects turnout.

Compositional changes

I consider the possibility that population changes could explain the observed effects. I first consider whether arrests for eradication could mechanically decrease turnout by reducing the population. Using a freedom of information request, I obtained data on the number of people arrested for illicit-crop farming each year. Although growing illicit crops is a felony, the data show that the penalty is not routinely enforced. Specifically, while the mean yearly number of sentences for the crime of illicit-crop harvesting between 2007 and 2020 was only 59, according to the Attorney General's office, the mean number of yearly eradicated fields in the period was 188,691.

Second, one could worry that eradication operations force people to leave their communities and find work elsewhere. Ethnographic work has documented migration away from crop-growing communities. However, the phenomenon is linked to changes in crop-harvesting profitability, not government activity (Le Cour Grandmaison, Morris and Smith, 2019*b*). In fact, historians have pointed to the profitability of crop harvesting as a tool that has allowed communities to *resist* pressures to emigrate to cities (Le Cour Grandmaison, Morris and Smith, 2019*a*). Additionally, the control group should account for any changes in

migratory pressures, which are common to crop-growing communities.

However, given extant work on displacement and coca fumigation in Colombia (Dion and Russler, 2008), this channel is essential to examine. To do so, I use data on voter address changes between electoral precincts. While this measure will fail to pick up individuals who do not keep their address up to date with the electoral authority, in Mexico, more than 97% of those eligible have a valid voting ID card (Finan, Seira and Simpser, 2021). I find that 3.2 and 5.8 people per precinct moved from eradicated areas to non-eradicated ones in 2015 and 2018, respectively. Conversely, during those same periods, 3.3 and 5.9 people moved in the opposite direction, from non-eradicated to eradicated precincts. The resulting net difference is not only small but slightly positive, offering no evidence of population displacement as a mechanism.

Violence

Lastly, I consider whether eradication operations might affect participation through changes in criminal violence by potentially disrupting DTOs' revenue streams, fostering competition between criminal organizations, or incentivizing them to resort to extortion to compensate for financial losses. This mechanism is improbable for several reasons: growers rather than cartels typically own the crops and absorb the economic costs (Álvarez Rodriguez, 2021*a*; Farfán-Mendez, 2021); cartels have diversified toward synthetic drugs like fentanyl (DEA, 2021), which remain unaffected by eradication; cultivation represents the lowest value-added segment in the trafficking chain, making it unlikely to trigger violent reorganization; and insights from my interviews with high-level Mexican politicians Appendix C confirm that DTOs have largely moved away from crop-based revenues.

However, I assess further empirical evidence to determine whether cartel violence could plausibly mediate the relationship between eradication and turnout. Ideally, I would test this mechanism by directly controlling for cartel violence. While measures of municipality-level cartel presence exist based on news reporting (Esberg, 2025), no such measures for cartel violence exist, nor could they likely be constructed without non-random measurement error due to heterogeneous reporting incentives and capacity across geographies and time periods. Instead, I focus on official homicide data, as homicides are the best-measured crime and least susceptible to underreporting in low-trust contexts (World Health Organization, 2014). I conduct the analysis at the municipal level, the smallest geographic unit for which both lethal violence and turnout are consistently reported. I use both overall homicides and firearm homicides, which are commonly more sensitive to DTO violence (Vela Barba and Atuesta, 2022).

I replicate the specification from equation 3 but add lagged municipal homicide rates as controls. If violence were the primary channel through which eradication affects participation, controlling for violence should substantially attenuate the eradication coefficients. Moreover, if eradication operates through violence to depress turnout, we would expect violence itself to have a negative association with turnout.

Table **??** in the Appendix shows the results. It demonstrates that violence is unlikely to mediate this relationship. Across all specifications, eradication effects remain substantively unchanged when controlling for lagged municipal homicides, with coefficients nearly identical to those in Table 3. Both firearm homicides and total homicides show small but statistically significant *positive* associations with turnout, the opposite of what we would expect to see if violence, not eradication, depressed turnout. The empirical evidence provides little support for this alternative explanation.

Discussion

This paper examines how US conditional security aid has steered drug-producing countries, most of which are in Latin America, the world's most violent region, toward a counternarcotics policy centered on illicit-crop eradication and interdiction. In Mexico, these eradication programs directly harm domestic producers, often residents of marginalized rural communities, rather than violent cartels. Ethnographic fieldwork reveals that eradication operations generate deep grievances against the state in affected areas. Consistently, my quantitative analysis shows that eradication significantly depresses both trust in the army, the institution charged with eradication, and turnout in federal deputy elections in eradicated places.

These findings advance research on the political consequences of coercive state action in two key ways. First, they demonstrate that law enforcement can contingently depress voter turnout even in high-violence contexts where security concerns are central to citizens. While previous studies have found that crime and violence can mobilize citizens electorally (Bateson, 2012; Ley, 2022), I show that when structural constraints limit the possibility for policy change—as with US-backed eradication operations in Mexico—citizens instead withdraw from electoral politics. This withdrawal occurs not because they don't care about the policy but because they correctly perceive voting as ineffective for influencing it. Second, these findings reveal that institutional trust erodes not only in response to illegal policing misconduct but also when legally sanctioned enforcement harms local livelihoods and is perceived as unjust. In doing so, this paper bridges Latin American studies on militarized policing with broader theories of state legitimacy and political participation, and

challenges the assumption that the army, Mexico's most trusted law enforcement institution, is immune to the political costs of fighting a "drug war."

Yet, qualitative evidence suggests the Mexican federal government pays minimal immediate political costs to satisfy US demands. Despite the loss of trust and turnout in remote communities, these costs are too small to outweigh the economic and political benefits of continued US aid. As one former federal deputy bluntly remarked, "They [the federal government] are being monitored by the *gringos* [the US government], and if they didn't burn any plantations, they'd get into trouble." By eradicating illicit fields, Mexico helps secure US assistance without provoking a significant domestic backlash.

However, this absence of backlash is not inevitable. In Colombia and Bolivia, aerial eradication programs have sparked protests and organized resistance.[18] What explains these divergent responses? A simple explanation is that Mexico relies on manual eradication —less indiscriminate than aerial spraying— but manual eradication still informs residents about policy priorities while angering and potentially harming them, rendering this explanation alone insufficient. I argue instead that the structural constraints facing marginalized producers are the key difference. In Mexico, affected communities are small and lack robust organizational networks. Because electoral politics are insufficient to incentivize change when it comes to counternarcotics policy, eradication effectively creates zones of democratic exclusion where people become disengaged from electoral politics but have no alternative political channels to influence policy. In contrast, Colombia and Bolivia possess well-organized cocalero unions or former guerrilla networks that can mobilize collective resistance.

These dynamics have implications beyond Mexico. Across Latin America, conditional security aid and eradication policies risk undermining citizen-state cooperation, precisely in communities on the margins of crime, where institutional trust may be most impactful. This creates a paradox: efforts to combat illicit economies can weaken democratic citizenship in areas where the state is already thin while eroding the trust required to co-produce security. As residents grow disillusioned with formal politics and governance, they may not only retreat from the state but cling to illicit-crop cultivation as a means of survival.

[18] See: `https://www.elcomercio.com/actualidad/mundo/erradicacion-cultivos-coca-protestas-colombia.html`

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