CRIMES AGAINST AGRICULTURE: NAFTA AS STATE CRIME IN MEXICO

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Abstract: With the implementation of NAFTA in 1994, several consequences have followed. The current study is a case study of the negative harms primarily felt by Mexican farmers. Using the copious research on NAFTA, the trade deal is shown to have ingratiated transnational corporations while leaving poor rural farmers to cope for themselves in a newly shaped economy. Using anomie-strain theory, social structure of accumulation theory, and the concept of a criminogenic policy, NAFTA is contextually situated and connected to its harmful effects, contributing to poverty, under- and unemployment, displacement of rural farmers, the destruction of small-scale corn growers, malnutrition via the neoliberal diet, and a loss of Mexican food sovereignty. Nearly three decades after NAFTA, ignorance of such effects should not be possible in light of negotiating new or renegotiated old trade deals. Researchers of state crime must build an understanding of how policy is a tool of state crime.

Keywords: agriculture; Mexico; NAFTA; free trade policy; strain theory; institutional anomie theory; social structure of accumulation theory

After years of negotiation, on January 1, 1994, the North American Free Trade Agreement (NAFTA) went into effect in Mexico. In response, the Zapatista Army of National Liberation (EZLN aka the Zapatistas) declared war against the Mexican government in one of the most intense and extreme responses to a free trade agreement. Given the magnitude of this level of response to NAFTA, there was a stark polarization among the population over NAFTA. The Zapatistas, by declaring war, made a serious claim that many Mexicans would be the victim of this policy, primarily indigenous and subsistent farmers. While the Zapatistas did not use the language of crime, they essentially made an argument that this policy was a tool of state crime.

The Zapatistas were right about some of the negative consequences of NAFTA. Farmers throughout Mexico were the hardest hit by job loss following NAFTA with about 20 per cent of agricultural jobs disappearing from 1991 to 2007 (Weisbrot, Lefebvre, and Sammut 2014), forcing many to find work in the maquiladoras (factory or manufacturing facility found in Mexico near the US border) or the United States (Kim 2013). Of the over 8 million workers left in agriculture, nearly 55 per cent were underemployed, working seasonally or less than six months.
a year (Weisbrot et al. 2014). Even the employed experienced stagnated wages (Laurell 2015) and few, if any, basic employee benefits (Zepeda et al. 2009), while poverty (Laurell 2015) and inequality were exacerbated (Esquivel 2015). The NAFTA-induced changes in the agricultural sector include a series of other social harms such as soaring food prices, particularly corn or corn-based foods (Fox and Haight 2010); use of dangerous insecticides (Gonzalez 2011); malnutrition resulting from exposure of citizens to a neoliberal diet\(^1\) (Otero, Pechlaner, and Gurcan 2015); contamination of groundwater from agricultural runoff (Gonzalez 2011); loss of Mexican food sovereignty (Otero 2011); deleterious effects of US food dumping (Wise 2009); and job loss and displacement of rural farmers in Mexico (Public Citizen 2001). The destruction of the agricultural sector has contributed to illegal immigration and violence on the northern border (Bacon 2008; 2013), individuals joining the ranks of the informal economy, especially the drug trade, and other issues of displacement and mobility (Watt and Zepeda 2012). In addition, Mexico’s loss of food sovereignty and widespread poverty (Gonzalez 2011; Public Citizen 2014) created dangerous conditions during the global food price hikes in 2007–8. Resistance movements have formed due to several of these conditions and created a turbulent dynamic between disgruntled citizens and state agents (Knoll 2014). All of these issues have also been exacerbated by slumping real wages, high un- and underemployment (Weisbrot et al. 2018), deteriorating labour conditions (Salas, Campbell, and Scott 2001; Simon 2014), and the weakening of union membership and activity (Kay 2015) associated with NAFTA’s implementation.

The purpose of this research is to use the abundant data available on NAFTA’s impact on Mexican agriculture to achieve two goals. First, the theoretical framework proposed strives to integrate theories of state crime using more generally applied theories of sociology and criminology with the hope of strengthening current state crime theory and bridging a gap with more traditional criminologies. Of particular interest to the current study is how anomie, strain, institutional imbalance, and social structure of accumulation are created in a society. Case study analysis is used to explore the NAFTA effects primarily on Mexican farmers over the last 27 years since implementation. Second, the current study applies the concept of criminogenic policy to NAFTA and Mexico to demonstrate how NAFTA contributed to or exacerbated social harms (criminal) and those harms such as unemployment and poverty were conducive for more traditional crime (criminogenic).

**Theoretical Framework**

Durkheim (1951) introduced the concept of anomie as a state of normlessness whereby individuals are segregated from one another by a deterioration of the common bonds that hold society together in a sympathetic web. Furthermore,
anomie tends to arise when social norms and expectations change to become incongruent across several persons or various groups. In other words, as social norms become more varied across subgroups and less cohesion of social norms throughout society exists, anomie ensues. Thus, any changes to macro social bonds like an economic policy with sweeping societal changes is crucial for study. Particularly, it will be demonstrated that NAFTA partially caused major changes to long-held norms and traditions in Mexico including agricultural crops grown, daily work life, and diet, to name a few. Such radical changes affected many average Mexicans and more pronouncedly rural, indigenous Mexicans and farmers.

Merton (1938) later expanded on Durkheim’s concept of anomie by focusing on the American Dream when discussing his concept of social strain. Social strain was the product of a strong cultural emphasis on success without the supportive infrastructure to allow individuals to achieve culturally valued goals leading to higher crime rates. Although Merton focused on the United States, the primary cultural goal of material wealth is prominent among most nations globally via the process of globalization. NAFTA created a disjuncture between cultural goals and institutionalized means. Principally, the cultural goal of sustainable work, especially subsistence farming, in Mexico was blocked for many Mexicans by removing several mechanisms that supported such existence. Thus, many Mexicans were faced with a major choice of how to persist. Some skilled in farming “chose” to turn to the drug trade as a form of innovation. The drug trade became a major opportunity structure for rural farmers (see Cloward and Ohlin 1960).

More recently, Messner and Rosenfeld (2013) developed institutional anomie theory using Durkheim’s and Merton’s work. Societally, high crime is a result of a power imbalance between major social institutions. Specifically, the economic system comes to dominate other major social institutions such as polity, family, and education. Thus, noneconomic goals are devalued and economic incentives are placed on traditionally non-economic institutions. NAFTA accentuated the power imbalance of social institutions in favour of the economy by subjecting other social institutions to a bottom-line approach. One example of this occurring in the following case study relates to corn production. While NAFTA focused solely on the economic viability of corn, it neglected its cultural value to many Mexicans.

Yet, NAFTA went even further to shift power within the economy. With its embedded neoliberal economic ideology, mostly macro-economic factors became the focus. Thus, foreign investment was emphasized over worker’s rights. In other words, not only did NAFTA shift power in favour of the economic institution, it shifted power to a specific aspect of the economy. In the simplest terms, power was concentrated in the hands of transnational corporations (TNCs) and investors.

Social structure of accumulation (SSA) theory is also useful to understand the role NAFTA played in Mexico’s restructure. An SSA is a set of economic
institutions and principles established to facilitate the ease of accumulating capital over time that creates conditions favourable for amassing capital rapidly in a capitalist economy and/or the global capitalist marketplace (McDonough, Reich, and Kotz 2010). Kotz (2015) categorizes the current SSA (beginning around 1979) as neoliberalism defined by policies emphasizing deregulation, privatization, and macro-stabilization. Since NAFTA was implemented during the neoliberal era, it is unsurprising it encapsulates these goals. When looking at who ushered in the neoliberal SSA and NAFTA, there is considerable overlap. One example of this is the Business Roundtable, a corporate lobbying group, which played an integral role in defeating the Labor Law Reform Act of 1978, weakening unions and labour (seen as a major impetus for the neoliberal SSA; Kotz 2015) and later also heavily shaped NAFTA to reflect neoliberal ideals (Mayer 1998; MacArthur 2000).

Two criminological terms are useful to analyze this case as state-corporate crime: (1) criminogenic market structure and (2) criminogenic policy. In addition, this approach to state-corporate crime should be seen as a further advancement of Tombs’ (2012) criticism that the concept of state-corporate crime obfuscates the deep symbiotic relationships between states and corporations. Instead of viewing a state-corporate crime as a discrete event, this case study demonstrates how the relationships of states and corporations create social structure with policy being an artifact for study of those manifestations. Leonard and Weber (1970: 408) describe market structures as “economic power available to certain corporations in concentrated industries” and when these structures are highly concentrated they are said to be criminogenic because they “generate criminal conduct.” For example, price fixing as a crime cannot exist without such a situation of high concentration. While Leonard and Weber focused on the automobile industry, market structure can be applied globally or regionally. In the case of NAFTA, TNCs, a major concentration of economic power, heavily influenced NAFTA to further shift economic power in their favour. Patten (2019) demonstrates how TNCs in all three North American nations collaborated to produce such a NAFTA and argues it is a criminogenic policy because it creates conditions where social harm is likely to follow. Crime is defined as blameworthy social harm in line with many critical criminologists (Agnew 2011). To be considered blameworthy, the scrutinized individuals or groups must bear some responsibility for an action or inaction that was voluntarily and willfully taken without justification. Therefore, a criminogenic policy is a policy that willfully creates the conditions conducive for criminal outcomes while a criminal policy would be one that causes blameworthy social harm. Although NAFTA fits both categorizations, the latter is much easier to document. However, this case study highlights NAFTA’s connection to creating conditions conducive for traditional crime such as drug trafficking.
Within a neoliberal SSA, wealth concentration created criminogenic market structures and criminogenic polices were passed, NAFTA being one. Such policies further shift the power imbalance to favour not only the economy, but an economy that greatly benefits TNCs and investors. Such macro changes are likely to increase crime rates, but as will be shown here have resulted in various social harms without a direct contribution to crime. In other words, NAFTA, as a criminogenic/criminal policy, has contributed to wide scale social harms to some groups where the least economic power is concentrated that being Mexican indigenous, poor, rural, and farmers.

NAFTA’s Effect on Agriculture: The Case of Mexico

The agricultural section of NAFTA was the only bilateral section of NAFTA. The US-Mexico agreement actually had fewer protections than the US-Canadian agreement it replaced despite Mexico’s status as a developing nation. Many of the major changes to agriculture were also done as part of the NAFTA sales package (moves Mexico made to appeal to US business interests and other foreign investment), primarily the amendment to Article 27 which put an end to the *ejido* (communal land owned by the Mexican state where community members were able to use the land for agriculture without possessing ownership of the land) system and effectively privatized the countryside (McGuire 2015). This case study will begin by introducing the neoliberal agricultural model that NAFTA solidified: a model that led to the displacement and impoverishment of Mexican peasants while simultaneously concentrating that lost wealth in the hands of a few TNCs. Along with this economic polarization, food production was radically altered, leading to malnutrition and a loss in Mexican food sovereignty. Then, the case study will turn to the environmental impacts of NAFTA via agricultural changes before concluding that NAFTA was both a criminal and criminogenic policy viewed through the theoretical lens presented.

Neoliberal Agricultural Model

NAFTA and the other neoliberal policies brought a new agricultural economic strategy to Mexico, shifting the focus to crop specialization and global exportation. Yet, production specialization degraded natural and human resources, subordinated local producers to the whim of foreign-based TNCs and governments, impinged on the food security of Mexico’s poorest populations, threatened Mexico’s food sovereignty, and sacrificed domestic consumers’ nutritional diets (González 2014). NAFTA envisioned a particular strategy for agricultural production in North America based on comparative advantage. Most capital- and land-intensive production was expected to shift to the United States, due to its superiority.
in high-yield, mechanised agricultural production, while labour-intensive production was to shift to Mexico. Since NAFTA, Mexico has grown seasonal fruits and vegetables, while staple crops, such as corn and soybeans, have been largely produced in the United States, and, to a lesser extent, Canada. Specifically, for corn, NAFTA promotes food quantity over all else (Fitting 2011). Thus, TNCs are typically favoured over small-scale farmers since they produce corn in massive quantities. NAFTA simply continues a long Mexican history of maize struggles. Both pre-and post-revolution, corn was targeted to either displace or modernize indigenous peoples, a trend that has accelerated under NAFTA (Fitting 2011).

Another major strategy in the neoliberal food regime is monoculture or monocropping—the agricultural practice of cultivating a single crop every growing season within the same land area (Pechlaner and Otero 2010). Corn, particularly, became heavily concentrated in Sinaloa. The use of genetically modified (GM) corn also threatened biodiversity by growing one or limited species of corn. Given the focus on production specialization, production of specific fruits and vegetables increased while abandoning other crops. Emphasis on monocropping was paired with forced urbanization of rural peasants, primarily through the amendment to article 27 of the Mexican constitution and outsourcing most of farming to TNCs, to sustain a cheap labour force necessary to attract foreign investment (Bartra 2004). These changes were justified by increased productivity.

Overall, the neoliberal agricultural strategy to focus on high-value exports has resulted in three major outcomes. First, regional concentration of specific crop cultivation subordinated itself to foreign priorities of governments and TNCs, primarily by the changes to tariffs and subsidies. Second, Mexico’s integration into the North American agromarket increased food vulnerability by prioritizing external demands rather than domestic needs, and destroyed the traditional Mexican diet. Third, monocropping degraded the land, thus depriving Mexicans of natural resources and damaging the health of workers.

Struggling Peasants and Thriving TNCs

The typical NAFTA story concerning agriculture is one of struggling small- to medium-scale farmers and prospering agricultural producers tied to TNCs. Effectively, NAFTA (and its sales package) removed Mexican tariffs on a variety of crops, most importantly corn, eliminated most supports for small farmers, and allowed the United States to subsidize its agricultural sector without penalty. NAFTA impacted corn more than any crop (Rivera, Whiteford, and Chávez 2009). This impact is crucial because corn accounted for a third of Mexico’s agricultural production before NAFTA (in 1990). After implementation of NAFTA, cheap US corn flooded the Mexican market and decreased farmers’ income from corn by 66 per cent (Wise 2009). From 1994 to 2008, Mexican corn imports from the
United States increased three to more than fourfold (Browning 2013). Many farmers found growing corn no longer sustainable (Public Citizen 2001) with entire towns being abandoned as their farmers could not compete with heavily-subsidized U.S. corn production (Clark 2006).

Exporting products to a country below their production value is referred to as product dumping. NAFTA did not impose penalties for subsidies, unlike the World Trade Organization, and thus provided the opportunity for US product dumping in Mexico. For example, Wise (2009) examined the production of eight agricultural exports—corn, soybeans, wheat, rice, cotton, beef, pork, and poultry—subsidized by the US government. Overall, Wise found that both US policies and subsidies affected the competitiveness of US exports. The cost to Mexican producers was monumental for corn, soybeans, wheat, cotton, and rice, resulting in a combined loss of US $9.7 billion from 1997 to 2005, with corn accounting for around 66 per cent of the total loss. When all eight products are combined, the losses account for 10 per cent of all Mexican agricultural exports and are greater than all Mexican tomato exports, one of the primary crops designated to replace corn.

Surprisingly, gross production of and total surface area used for corn cultivation increased (Browning 2013). Mexican peasants likely continued to grow corn despite a major decline in its price for a variety of reasons. First, horticultural crops suffer from fewer commercial applications, a shorter shelf life, and tend to use more destructive production practices that are harsher on the land. Second, the neoliberal agricultural strategy severely underestimated the cultural importance of maize production and consumption. Mexico is the cradle of maize cultivation where it has been grown since as early as 5000 BC and throughout the Mayan and Incan empires (MacNeish 1972). Corn is used for ancient religious practices, the main staple of the Mexican diet, the major crop grown by peasants, and even used as a social safety net (Bellon and Hellin 2011; Fitting 2011). Around 40 different maize varieties are grown in Mexico dating back thousands of years (Audley et al. 2004). Thus, maize is more than just a crop; it is a cultural identity for many Mexicans. Third, small farmers lacked adequate support to allow for a switch to alternative crops (Avalos and Graillit 2013). These farmers often lacked credit, technology, quality land, and infrastructure needed to cultivate alternative horticultural crops.

Transitional support for small farmers has either been nonexistent, severely lacking, or misguided. In addition to the large dumping margins, access to credit decreased for rural peasants with only 4 per cent of rural farmers having access to credit by 2007, inhibiting them from competing (Fernández, Wise, and Garvey 2012). Poor farmers reported using PROCAMPO payments for basic necessities and paying off debts rather than improving farmers’ competitiveness (Bellon and Hellin 2011). Larger-scale farmers, however, received over-allotments of these funds (Palmer-Rubin 2012).
NAFTA favoured TNCs such as Cargill, Maseca, and Minsa (Appendini 2014). In addition to transnational food producers, transnational food retailers benefitted from NAFTA by seizing control of 75 per cent of the market by 2001 (Chávez 2009). Mexico’s northwest region was particularly favoured for post-NAFTA agricultural growth given its rare irrigated lands produced higher and more stable yields (Scott 2010), while the non-irrigated sector populated by poor rule farmers was left behind (Sweeney et al. 2013).

The decrease in rural employment was not due to lack of government funding, which had increased significantly during the 2000s, rather Mexico targeted large-scale commercial farmers for aid (Fox and Haight 2010). Even PROCAMPO, the only program officially designed to compensate peasants for their losses after NAFTA, often excluded these farmers while disproportionately benefiting large commercial producers. In addition, seed subsidy programs were reduced to virtually nothing by 2006, and fertilizer subsidies were removed, alongside rising prices in fertilizers resulting in few gains for small growers (Bellon and Hellin 2011).

The case of Metalclad, a US waste removal company, provides an example of how NAFTA prioritized corporations and investors over the environment and average people. Metalclad filed a lawsuit against the Mexican government under NAFTA’s Chapter 11, claiming a violation of Article 1105 (González 2003). Metalclad claimed the local San Luis Potosí government denying it an operation permit was unfair treatment. Metalclad sued for US $130 million in lost profits, despite its original investment of only US $20 to US $25 million. In 2000, a NAFTA tribunal ruled in favour of Metalclad, ordering the Mexican government to pay Metalclad over US $16 million.

**Loss of Food Sovereignty**

Shifting power from Mexican farmers to TNCs has threatened food sovereignty in Mexico which may have been the most devastating effect NAFTA had on Mexico as it lost its ability to produce enough food for its population, thus becoming dependent on food imports. Food sovereignty is defined by Via Campesina, a social justice organization, as “the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.” Although Mexico had been losing its food sovereignty since 1970, NAFTA exacerbated this precipitous drop and made any recovery of food self-sufficiency difficult (Rivera, Whiteford, and Chávez 2009). Since NAFTA, Mexican agricultural exports grew fivefold, but imports grew even more rapidly (FAO 2013). Mexico went from being food sovereign before NAFTA to 42 per cent food dependent in 2008, with an overwhelming dependence on foreign imports of staple grains (Suárez 2008). The primary reason for the increased dependence was the flooding of the market
with US-subsidized corn after NAFTA. Meanwhile, private sector agricultural oligarchies have been on the rise with two TNCs—Cargill and Archer Daniels—along with two national corporations—Maseca and Minsa—controlling 66 per cent of Mexico’s maize market (Rubio 2013).

The policies enacted by the Mexican government and NAFTA have transformed most Mexicans from food producers to food consumers, thus making them more vulnerable to global and domestic food price volatility than ever before (Rodríguez-Gómez 2013). For example, the price of tortillas skyrocketed since NAFTA, increasing 733 per cent from 1993 to 2006, while inflation remained 376 per cent higher in rural areas compared to urban (González and Macías 2007). This trend has coincided with the rapidly rising corn imports to Mexico, multiplying sixfold since the implementation of NAFTA (Rodríguez-Gómez 2013).

As global food prices began rising in 2007, the tortilla crisis in Mexico further exposed its hidden problem of food sovereignty. The tortilla crisis brought an unprecedented 75.5 per cent increase in corn prices internationally, as well as increases domestically as high as 67 per cent (Rodríguez-Gómez 2007). Under NAFTA, Mexico was converted into the world’s number one importer of maize, sorghum, and milk powder (Sanchez and Moreno 2013). Unfortunately, food prices soared to their highest level in 2008 causing catastrophe in Mexico.

The strategy to focus on exports has enriched a small portion of food industry firms, and only consumers in the wealthier nations like the United States and Canada benefited from cheaper prices. While 32,000 firms still exist in the food industry, only a small fraction (1,692) engage in exports and 300 firms account for 80 per cent of all exports (González and Macías 2007). Most Mexicans did not achieve increased living standards after implementation of NAFTA, rather they have fallen victim to Mexico’s increased food vulnerability and dependency (Otero 2011).

The direct result of Mexico’s loss of food sovereignty and food price increases was food poverty and widespread hunger. After the food price hikes in 2008, over 18 per cent of the entire Mexican population lived in food poverty—the inability to purchase nutritious food—and poorer rural areas such as Chiapas saw food poverty rise as high as 47 per cent (USDA 2010). Nearly half of the country’s population experienced some form of food insecurity (CONEVAL 2008), and over one in every three indigenous children suffered from malnutrition (USDA 2010). A majority of rural families in the states of Guerrero, Oaxaca, Tlaxcala, and Puebla reported trouble obtaining sufficient amounts of food (INEGI 2008). From the years 2001 to 2010, Mexican data suggest that more deaths occurred as a result of malnutrition, including starvation, than due to the drug cartels. With such a loss in food sovereignty, external shocks to food markets pose more dangerous risks for Mexico. The current effects of Russia’s invasion of Ukraine are
beginning to be seen throughout Latin America and could lead to similar food price hikes of 2008 (Kammer et al. 2022). According to Reuters (2022), the current Mexican president, Andrés Manuel López Obrador, has responded by recommending an increase in production of staple foods such as corn, beans, and rice, in other words, a rebuilding of Mexican food sovereignty. Although this is unlikely to provide relief in the short-term, it could begin to mend the effects of neoliberal policies on Mexico’s food sovereignty in the long run.

**Neoliberal Diet**

The loss of food sovereignty makes Mexico more beholden to global market trends, while it has also played a role in restricting the dietary options of everyday Mexicans, especially when considering the displacement of Mexicans via neoliberal policies. The “neoliberal diet” is defined as a diet that is “largely composed of ‘energy-dense’ foods with high contents of fat and empty calories with low nutritional value” (Otero, Pechlaner, and Gurcan 2015: 1). This diet is a direct result of the changes to agriculture in the neoliberal age (Otero et al. 2015) rather than the poor’s lack of education (Guthman 2011). For instance, the change in caloric contribution of cereals has risen since NAFTA, while cereal consumption itself remained relatively stable. Preliminary analyses show a rising junk-food-risk index (measure that considers the food-import dependency, GINI coefficient, food-uniformity index, rate of urbanization, and economic-globalization rates of change) during the neoliberal age increasing from 36 to 40 from 1985 to 2007. Furthermore, aggressive advertisement campaigns are run to sell the foods high in sugar, fat, salt, and calories (Gallo 2012). In particular, children are subjected to over 5,500 food advertisements a year, with 95 per cent of them dedicated to these types of junk foods (Novak and Brownell 2012). NAFTA has uniquely contributed to the rapid increase in processed foods (Hing 2010).

By shifting power to Mexican TNCs, NAFTA has changed the Mexican diet. According to institutional anomie theory, NAFTA created an imbalance favouring economic goals to noneconomic goals, in this case health. Health has been secondary to, if not subsumed by, economic efficiency. For example, protections for soybeans under NAFTA were removed in 2003, and soybean trade intensified thereafter. The United States since then has had a virtual monopoly on soybean production, and Mexican soybean producers have been nearly all displaced (Clark et al. 2012). The fast food industry has expanded in line with US livestock and meat imports increasing after NAFTA. Ready-to-eat meals, snack foods, and high fructose corn syrup also began flowing into Mexico in larger numbers. The influx of junk food was compounded from 2008 to 2010 due to the soaring prices of food and rampant food poverty (Carlsen 2011). Healthy food prices increased in price at twice the rate of cheaper processed foods during the neoliberal era from 1985 to
Investors have also successfully blocked attempts at imposing a soda tax. In short, common Mexican farmers have been displaced while traditional, more healthy Mexican food sources have been undercut creating a shift in these Mexicans’ diet.

Both the United States and Mexico face serious obesity epidemics, while NAFTA has played a major role in this crisis spreading to Mexico by increasing its exposure to high-caloric sugary foods (Clark et al. 2012). By late 2000s, Mexico and the United States ranked number one and two in percentage of overweight and obese citizens among OECD countries (OECD 2010). As many as 39 per cent of children in Mexico are classified as obese, and Mexico ranks first in child obesity in the world according to Mexico’s ministry of health. Child obesity has continued to rise, and obesity may be occurring more rapidly in children than in the past (Instituto Nacional de Salud Pública 2012). A recent study investigating changes from 1988 to 2012 found overweight and obese Mexican children have increased most dramatically during the NAFTA years (from 1988 to 1999) increasing 6.3 percentage points (Hernández-Cordero et al. 2017). Mexico is in the midst of a health crisis brought on by increased consumption of processed foods—full of sugar and refined carbohydrates—and soda, and a lack of physical activity (Wilhelm 2016) which has given rise to not just obesity, but increasing mortality rates, diabetes, and heart attacks as well (Rivera et al. 2002).

The high consumption of these processed foods is directly related to changes in foreign investment. Mexico is one of the leading recipients of US foreign direct investment in the food and beverage industry (USDA 2009). Around 75 per cent of this investment is in highly processed foods, such as snack foods, meat, and ready-to-eat packaged foods (Bolling, Elizalde, and Handy 1999). For example, Yum! Brand Inc.—the owner of KFC, Pizza Hut, Taco Bell, and Long John Silver’s—profits more from Mexico than any other regional market (Hawkes 2002). Although Mexico began its processed food frontier in the 1980s, it accelerated during the 1990s under NAFTA (Chávez 2002). For instance, the number of Wal-Mart stores grew rapidly from 1993 to 2001, along with other major chain food retailers. Such changes have led to a major shift in Mexican diets which now consist of processed foods high in fats and sugar (Rivera, Irizarry, and González-de Cossio 2009). The average total food energy from fat found in foods actually increased most dramatically during the NAFTA years (Rivera et al. 2004). As of 2006, 34.8 per cent of Mexicans were at risk for excessive carbohydrate intake, and 12.7 per cent had a similar risk for fats (Barquera et al. 2009).

Environmental Harms of NAFTA Agricultural Strategy

Agricultural changes have led to some devastating impacts on the environment. As small and medium farms were bankrupted due to the removal of protections
such as tariffs on important crops and support such as seed and fertilizer subsidies along with the lack of any transitional aid (Bellon and Hellin 2011; Fernández, Wise, and Garvey 2012), large factory farms took their place backed by robust government support (Fox and Haight 2010; Palmer-Rubin 2012), contributing to water shortages, increased levels of nitrogen and other agrochemicals, a loss of maize diversity, and deforestation. In relation to the environment, the changes in agriculture, more than anything else, threatened biodiversity, the variety of flora and fauna in the environment. Mexico accounts for nearly 10 per cent of the entire Earth’s biological diversity, while only occupying 0.51 per cent of its land mass (CONABIO 1998; Carlsen 2004).

The new NAFTA agricultural strategy replaced traditional crop diversity and sustainability with monocropping and tied agricultural exports to Wall Street speculation (Mendieta 2006). Venture capitalists began investing enormous amounts of money in biotechnology, which has typically taken the form of genetically modified (GM) crops or seeds (Dibner, Trull, and Howell 2003). The United States strongly supported intellectual property rights domestically, and efforts to homogenize these rights globally (Pechlaner and Otero 2010).

One of the most pressing concerns about using GM crops is that they cross-pollinate with landraces (naturally evolved seeds/crops), thus destroying biodiversity by creating a single species. The North American Commission on Environmental Cooperation (CEC 2004) found, much to US chagrin, that transgenics contaminated some Mexican landraces, and will likely be irremovable from Mexico’s ecosystem. Most scientists expressed concern about GM corn’s threat to biodiversity (Fitting 2011). Industry sought control over seed by passing a new law in 2007 that required all seed, even native seed, to be registered in a national seed catalog before they could be sold. Between GM cross-pollination and intellectual property rights, peasants’ ability to plant seed was restricted. Seed producers charged farmers for using their seed even if it was saved or exchanged. With the influx of primarily US GM corn under NAFTA, farmers lost control and access to seeds fundamentally important to their survival (Harvey 2003). GM crops are still a contentious debate in Mexico that seem to present a double-edged sword. Without them, Mexico could struggle to produce enough food for food sovereignty, whereas with them there is a threat of contaminating native crops destroying biodiversity and thereby Mexican culture (Deslandes 2022).

Water usage is heavily concentrated on commercial farms. In a country where 82 per cent of the land depends on rainfall, irrigated areas are crucial resources because they offer higher crop yields (CONAGUA 2008). The majority of water (77 per cent) is used for agriculture. Land surface area is also heavily concentrated in nine states (González 2014). The large commercial farms producing most of these crops are heavily dependent on imported technology from TNCs.
Such intensive cultivation methods have contributed to serious human and environmental issues of soil erosion, depletion of external inputs, air, water, and soil contamination, and major illnesses (Gliessman 2007). Monocropping techniques also tend to render future cultivation unfeasible because of their vulnerability to plagues and plant disease, and overexploitation of subterranean water sources (González 2012). Renting and buying of water shares has become commonplace, thus exacerbating the concerns over water (Barkin 2006). With the privatization of water, most peasants cannot afford irrigated land, and thus rely on rainfall. Also, the focus on horticultural crops has led to depletion of underground aquifers in those regions (Moreno 2006).

After the water is tapped out and the land is assumed infertile, the agricultural TNCs tend to simply move to untapped fecund lands. Enormous amounts of water are used in fruit and tomato cultivation, and most are exported, thus water is exported in the form of “virtual water” leading to water shortages (Allan 2003). Studies that have quantified this “virtual water” use have found that it has risen among Mexico’s export sector (Arreguín-Cortés and López-Pérez 2007). Furthermore, major weather calamities create severe scarcities primarily affecting the poorest consumers in Mexico (Thompson and Wilson 1997). Although the average price of fruits and vegetables in Mexico increased drastically since NAFTA, average to poor workers have not seen increases in their wages (González and Macías 2007). Agricultural workers and local citizens are the ones who bear the major burden of this unsustainable production strategy by sacrificing their water and precious natural resources, enjoying no real economic improvements, and suffering from exposure to noxious pesticides (Arellano et al. 2009). Since most of the GM crops are engineered to be pesticide resistant, they often are paired with pesticides to get the highest yields. However, pesticide use has increased to a dangerously high level that is harmful to both humans and the environment (Thrupp 1998). Regions high in pesticide use have also been found to have higher incidences of cancer among other diseases (Acedo 2011).

**Poverty and Deforestation/Soil Degradation**

The lack of economic gains along with the poverty and inequality after NAFTA is related to another form of environmental degradation (Laurell 2015). NAFTA contributed to substantial percentages of deforestation in several states: 24 per cent of jungle and forest lost in Chiapas; 37.3 per cent in San Luis Potosí; 31.5 per cent in Tabasco; 17.3 per cent in Oaxaca; and 10.4 per cent in Campeche (Soto 2012). This deforestation is most attributable to peasants in these states increasing their cultivation of corn to compensate for economic losses. Although deforestation is correlated with poverty, Pascual and Barbier (2007) argue that the causal link is rooted in the macroeconomic policy underlying NAFTA. Interestingly, the costs of soil
degradation appear highest among the non-poor and poorest households. Thus, two trends contributing to deforestation and soil degradation occurred after NAFTA. Peasants increased their land cultivation to compensate for economic losses, and wealthier farmers, often connected to TNCs, increased their scale of cultivation and used massive quantities of water, fertilizers, and pesticides. Both of these outcomes demonstrate the criminogenic drivers of NAFTA.

**Analytical Discussion**

In this section, a concerted effort is made to explicitly apply the described theoretical framework to the NAFTA case in Mexico with the goal of demonstrating how the selected theories and concepts can expand our understanding of state crime. Specifically, how social structure of accumulation, anomie, and institutional imbalance were created in Mexico as it relates to NAFTA will be highlighted. The end of the section attempts to integrate these findings within the broader concept of criminogenic policy. The following section concludes the paper by situating criminogenic policy within the broader mission of state crime research and suggesting its value for assessing future free trade agreements, specifically.

First, it must be understood that NAFTA was negotiated and implemented at a time in which a neoliberal SSA was in place within North America (Kotz 2015). Some of the same actors influenced both neoliberal ideology and NAFTA. Thus, a neoliberal ideology characterized by deregulation, free trade, privatization, and a reduction in government spending particularly for anything not directly related to macro-economic growth should be expected to be represented in NAFTA (and its sales package). NAFTA, and its ancillary policies, enshrined neoliberal ideology by consolidating benefits for TNCs while slashing social expenditures. The refocusing of subsidies is one great example discussed early of the changing priorities where government aid was directed from small and medium-sized farmers to large-scale factory farms controlled by TNCs (Fox and Haight 2010). In addition, Metalclad exemplifies the neoliberal effects of NAFTA’s solidification of prioritizing TNCs over average citizens offering recourse for Metalclad to sue the Mexican government when it attempted to regulate its environmental impact (González 2003). NAFTA’s function has been best categorized as attempting to solidify the economic changes that rapidly occurred leading up to NAFTA in Mexico with the primary goal of securing foreign investment (Fairbrother 2007). One change discussed earlier was the amendment to article 27 in the Mexican constitution in 1992 that privatized *ejido* lands (McGuire 2015). Mexican President Carlos Salinas also undermined article 123 of the constitution that protected workers’ rights to organize and strike by rounding up union bosses in a declared war against unions to quell resistance to neoliberal policies (Moody 1995). By 1994, over the course of Salinas’
presidential term, it is likely that approaching 86 per cent of state enterprises were privatized, and NAFTA cemented these changes (Moody 1995).

Expanding on the backdrop of a neoliberal SSA, many of the changes mentioned compounded to create a state of anomie. Anomie, more traditionally understood, is best measured by a breakdown of social fabric (e.g., people do not know who to trust, think of themselves and not others, and no clear moral standards to follow) and leadership (e.g., government not viewed as legitimate, uses its power illegitimately, lack of concern for the welfare of average citizens; Teymoori et al. 2016). Most principally, the Mexican government abruptly removed their support for farmers as it privatized their land (McGuire 2015), reduced subsidies for seeds and fertilizers (Bellon and Hellin 2011), radically changed their diets (Otero, Pechlaner, and Gurcan 2015), and thus forced them to seek new careers to stem un- or underemployment and poverty (Laurell 2015, Weisbrod et al. 2018). Unsurprisingly, these changes have led to a lack of trust in leadership by Mexicans, especially farmers, starting, if not sooner, with the amendment to article 27 (Barry 1995). A recent study has shown Mexico is currently experiencing a breakdown in both social fabric and leadership with 61 per cent of Mexicans distrusting their country’s political parties and 43 per cent distrusting their own communities, compared to 50 and 20 per cent respectively for the United States (Izquierdo, Pessino, and Vuletin 2018). Given the current legitimacy crisis in the US and political polarization, these number are telling. Although it is impossible to isolate NAFTA as the sole or even primary cause of this anomie, understanding that displaced agricultural workers often found work in the service industry mostly in the informal sector as street vendors and domestic workers with low pay sheds light on some of the underlying reasons for Mexican discontent (Oliver 2007).

Institutional anomie theory builds on this idea to explain how a society can be organized for crime when the economy as a social institution takes precedence over other social institutions to the point that there is an imbalance of power and influence (Messner and Rosenfeld 2013). In simpler terms, this institutional imbalance (or anomie) is demarcated by economic imperatives influencing non-economic aspects of social life (e.g., healthcare run on a cost rather than needs basis, higher education dependent on tuition rather than protecting education for its own sake) and the devaluation of non-economic roles and functions (e.g., parenting undervalued, education only important for its ability to make money). Institutional anomie theory helps contextualize how NAFTA operated by shifting power to the economy over other social institutions. Most prominently, an economy appealing to foreign investment was desired. The institutional imbalance was beneficial to economic priorities, particularly TNCs, to the detriment of rural Mexican farmers and the environment. At least three changes in Mexican society can better be understood by applying institutional anomie theory.
First, maize/corn cultivation was subjected to economic imperatives. The neoliberal economic strategies of regional specialization and monocropping enshrined by NAFTA were applied to achieve economic efficiency (González 2014). However, since Mexico was deemed less suited to growing maize/corn, production shifted to the United States. Consequently, the cultural value of maize to Mexicans, especially indigenous people and maize farmers, was devalued (Fitting 2011). Maize cultivation dates back to the Mayan and Incan empires, and maize is still used for ancient religious practices (Bellon and Hellin 2011). Simply put, the cultural and historical value of maize and its many varieties is difficult to quantify in strictly economic terms.

Second, the devaluation of maize in Mexico also had an impact on Mexicans’ diets. As with the cultural importance of maize, Mexicans’ health became secondary to the economic efficiency of food production. NAFTA, which helped liberalize Mexican food markets, contributed to a shift in the caloric intake of average Mexicans. While protections for Mexican food stables such as maize and soybeans were removed (Clarke et al. 2012), which would have kept consumption more available for Mexicans, cheaper, often less healthy, foods took their place. Foreign investors have profited from investment in cheap, highly processed foods (Bolling, Elizalde, and Handy 1999) at the cost of rising obesity levels in Mexico (Clark et al. 2012; Otero et al. 2015). With the narrow economic focus, the ensuing institutional imbalance has undermined public health in Mexico.

Third, also related to maize production, labour was viewed as an end and not a means. Given that people spend most of their life working, the type of work one does is important and not simply what one earns. Yet, the neoliberal changes in Mexico strove for macroeconomic efficiency sacrificing the non-economic benefits of work. For example, these changes forced many farmers to seek new forms of labour since subsistence farming became no longer possible. In some cases, entire towns and communities were broken apart as people sought new work (Public Citizen 2001). Although such changes can effectively bring about positive impacts in economic growth, if the new work does not provide a sense of personal pride and fulfillment, the noneconomic aspects of labour are undermined. Most of the jobs gained to replace those lost in agriculture were in maquiladoras which were often characterized by exposure to unsafe work environments, long hours, missed payments, no vacation time, and workers were often treated as disposable, particularly when they experienced some work-related injury (Kim 2013; Simon 2014). Furthermore, others felt compelled to leave their country and family behind altogether to find work (Anguiano 1996). Even while some economists acknowledge the economic shortcomings of NAFTA, a commitment to more maquiladoras suggests a potential oversight of these other noneconomic factors of labour (Meylor and Kulkarni 2021). This upheaval of the workplace for many Mexicans in the name of economic efficiency illustrates institutional imbalance.
In response to this anomie, many Mexicans became innovators, according to Merton’s (1938) strain theory. Merton describes innovators as individuals who seek to achieve the culturally defined goals but lack the institutionalized means to achieve them, and thus, turn to non-institutionalized means to achieve them. The adaptation of Mexican farmers to the discussed neoliberal changes best exemplifies Merton’s theory. As discussed, the various changes such as the abrupt removal of farming subsidies, privatization of ejidos, and lack of transitional aid forced Mexican farmers to adapt (Bellon and Hellin 2011; McGuire 2015). Mostly, Mexicans made one of four decisions. Two of those choices involved continuing to farm since it was their skillset. However, since traditional crops such as corn and soybeans were no longer sustainable, some decided to simply expand the land cultivation. In other words, the logic was to grow more crops since they are now less profitable. Although this was arguably an institutionalized mean since it was not criminalized, it did contribute to environmental harms such as soil erosion and deforestation (Soto 2012) which further exacerbate anomie. Others utilized their farming skills to produce more profitable illicit drugs (Watt and Zepeda 2012). Marijuana and opium cultivation supplanted maize in many areas where its farming thrived prior to NAFTA (Dube et al. 2014). As maize prices dropped, drug-related homicides increased. Many of the new workers in the drug trade were previous agricultural workers (Ronquillo 2011). Furthermore, rural unemployment outpaced job creation which added another impetus for Mexicans to seek work in informal drug economy (Blecker 2014).

The other two choices involved migrating. For most Mexican farmers, these two choices were to migrate to the norther border regions to seek work in the maquiladoras or go further north into the United States. Mexicans tended to report they had no plans of moving to the United States, but some found the work either unavailable or too abysmal due to poor working conditions and low pay that they felt no other choice than to migrate to the United States (Anguiano 1996). Unauthorized Mexican immigrants in the United States increased from 2 to 2.9 million from 1990 to 1995, but then increased more rapidly, increasing to 4.5 and 6.9 million in 2000 and 2007, respectively (Passel and D’Vera 2018). Since 2007, unauthorized Mexican immigration to the United States has declined. Indigenous people constituted only 7 per cent of Mexican migrants in the United States just before NAFTA, but by 2008, they made up 29 per cent (Mines, Nichols, and Runsten 2010). These four choices are rather logical given that job creation as a result of NAFTA was not enough to offset displaced rural Mexicans (Blecker 2014). Whereas increasing land cultivation and migration to the maquiladoras can be seen as conforming behavior according to Merton since they both use institutionalized means, growing illicit crops and migrating to the United States without proper documentation are examples of innovation.
The concept of a criminal or criminogenic policy helps to integrate the empirical and theoretical findings of this case study (Patten 2019). NAFTA is a criminal policy due to the various social harms it directly contributed to, such as agricultural job loss (Weisbrot et al. 2018; Public Citizen 2001), forced urbanization and poor working conditions primarily in maquiladoras (Kim 2013), underemployment, stagnated wages (Laurell 2015) and limited employee benefits (Zepeda et al. 2009), exacerbation of poverty and inequality (Esquivel 2015), the use of dangerous insecticides and the contamination of groundwater (Gonzalez 2011), soil erosion and deforestation (Soto 2012), malnutrition and obesity from the neoliberal diet (Otero et al. 2015), loss of Mexican food sovereignty (Otero 2011), and food dumping (Wise 2009). This article focused primarily on the effects of NAFTA on Mexican farmers in the agricultural sector.

NAFTA is also a criminogenic policy because the various effects mentioned above created conditions conducive for crime in the more traditional sense. The best documented example of this is drug trafficking and the violence associated with it documented earlier. In short, the upheaval within rural farming communities caused in part by NAFTA led some of these affected individuals to seek work in the informal economy, especially the drug trade (Arizpe 2014). The price of hiring a coyote (person who charges a fee to smuggle Mexicans seeking entry into the United States) has also steadily increased in the years following NAFTA (Fernández-Kelly and Massey 2007). This increased price is related to another important effect of NAFTA, increased migration of Mexicans to the United States. Although undocumented migration is not a crime as established by criminal law, it can still be understood as a criminogenic outcome of NAFTA. NAFTA was designed to protect and encourage foreign direct investment, but did not have equal protections for workers or openness for the flow of workers (Ricaurte 2020). Thus, United States dependence on Mexico for cheap labour has been a major impetus in the migration flows northward. Contrary to protecting migrant workers, the United States responded to these conditions by heavily militarizing the southern border, in effect tripling deaths among Mexican immigrants traversing the border (Massey, Durand, and Malone 2002). Overall, NAFTA set priorities in accordance with a neoliberal SSA which contributed to an institutional power imbalance that empowered an economy that favoured TNCs over small-scale Mexican farmers and such a policy has been argued to be criminal/criminogenic.

Conclusion

The evidence presented connects NAFTA to a series of harms relating to agriculture. The neoliberal agricultural model ushered in during the NAFTA years was categorized by crop specialization, monocropping, food dumping, and a
reduction of subsidies for the poorest farmers (González 2014). As a result, growers of several crops were deeply impacted, corn chiefly among them. Some Mexicans felt their cultural identity was threatened due to the rich history of maize in Mexico (Fitting 2011). The shifting of subsidies from subsistence farmers to TNCs contributed to the rising inequality following NAFTA (Fox and Haight 2010; Esquivel 2015). Some of these farmers responded by expanding their land cultivation (Pascual and Barbier 2007) contributing to deforestation and soil erosion (Soto 2012) while TNCs exported water rich fruits and vegetables exacerbating water shortages (Allan 2003). The neoliberal agricultural model also dramatically changed the average Mexican’s diet to include highly processed, sugary foods (Clark et al. 2012) and threatened Mexico’s food sovereignty (Rivera, Whiteford, and Chávez 2009). Specifically, monocropping led to losses in biodiversity that could create serious threats for future generations (Pechlaner and Otero 2010). Lastly, the tumultuous conditions created for small-scale Mexican farmers forced many to the informal economy, principally the drug trade (Watt and Zepeda 2012). In other words, NAFTA was a criminal policy for leading to many of these social harms and a criminogenic policy for creating conditions conducive for increasing traditional crime.

Since states often exert power covertly through policy rather than overtly through military or police force, especially during times of stability, this case study highlights an important framework for future researchers in state crime. A focus on policy as criminal and criminogenic offers two related avenues for future researchers of state crimes. This study showed how NAFTA was criminal by leading to social harms with some mention of how it was criminogenic by creating conditions conducive for crime. Such an approach heeds a major concern of Tombs (2012) about studying state-corporate crimes as discrete events. Instead, understanding policy as an artifact of a living relationship between states and corporations equips criminologists to move beyond studying single criminal state-corporate crimes to investigating the deeper symbiotic relationships between states and corporations, a specific point of emphasis for Tombs. In addition, social structure is often abstract, but policy, to some degree, codifies important aspects of social structure.

Understanding NAFTA as a criminal/criminogenic policy, the recent renegotiations of NAFTA, or the United States-Mexico-Canada Agreement (USMCA) must be placed under extreme scrutiny. No different from the original negotiation, Mexican farmers have not been seriously included. Not surprisingly, the signed USMCA still heavily favours TNCs to Mexican farmers and workers. However, the pharmaceutical industry suffered a defeat in its attempts to strengthen intellectual property rights, autoworkers’ wages were increased, and labour protections to vulnerable Mexican workers were extended. Future researchers and
policy-makers should ask if not only the USMCA, but any major policy, is achieving what Messner and Rosenfeld (2013: 126) call a “cultural regeneration” where the emphasis on validating self-worth through financial success is shifted to something more collective such as compassion and community and non-economic sectors of society such as family, education, and health care are freed from an economic stranglehold via a rebalancing of the social institutions. Without such a cultural regeneration, society will remain criminogenic, and thus criminogenic policies will be frequent.

Notes

1. Dietary changes brought about by neoliberal economic policies.
2. Willful here means intended actions that increase likelihood of negative outcomes without necessarily purposely intending harmful consequences. For example, a person who excessively drinks alcohol before driving a vehicle and then swerves off the road hitting a pedestrian and killing them willfully (purposely intended) drank to inebriation, but at no point did the person purposely intend to kill someone. In such a case, this would be said to be a crime or blameworthy social harm because they willfully intoxicated themselves and willfully drove thereby increasing the likelihood of swerving and hitting a pedestrian. A corporation that willfully slashes safety expenditures which ultimately lead to a work-related death would similarly be classified as crime.
3. It is acknowledged that crime and social harm are being used interchangeably and this is problematic as argued in an ongoing discussion about the differential definitions of crime, social harm, and zemiology (Copson 2018; Tombs 2018). The use of crime here is largely political in that labeling social harms as crime brings more political weight, but for the purpose of this paper, the definitional debate is avoided.
4. See Metalclad’s court proceedings at http://www.economia.gob.mx/files/Metalclad_v2.pdf and http://www.italaw.com/cases/671, and also news coverage at http://articles.latimes.com/2001/jun/14/business/fi-10239 (accessed all links 1 October 2022).
5. See Nyéléni, Declaration of Nyéléni at https://nyeleni.org/spip.php?article290 (accessed 7 July 2019).
6. According to CEIDAS (Centro de Estudios e Investigación en Desarrollo y Asistencia Social) and INEGI (Instituto Nacional de Estadística y Geografía) data, 85,343 people died from malnutrition over these years, while 49,804 died from organized crime.
7. See a radio interview with Gerardo Otero for more details on the junk-food-risk index at http://www.rabble.ca/podcasts/shows/red_eye/2013/02/quantifying-junk-food-risk (accessed 5 February 2018).
8. See also the USDA Foreign Agricultural Service for statistics on Mexico’s agricultural imports and exports with the United States at https://www.fas.usda.gov/regions/mexico (accessed 1 October 2022).
9. See the WTO dispute on this measure at https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds308_e.htm (accessed 1 October 2022).
10. See Mexico’s Gobierno de la República website at http://www.imss.gob.mx/salud-en-linea/obesidad-menoredad (accessed 1 October 2022).
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