

# **Drug Trafficking, Drug Violence and Development; The Case of Guerrero, Mexico**

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## **ABSTRACT**

This thesis examines the problem of drug trafficking and drug violence from the perspective of development. The main conceptual argument is that drug trafficking and one of its outcomes, violence, have been addressed only in terms of security issues when they have causes that are related to poverty, inequality and lack of development. The main hypotheses that are tested here is whether adverse socioeconomic conditions make some regions more prone to violence; whether socioeconomic conditions have some relation with the drug production; whether the levels of drug production have a relation with violence rates; and whether the reinforcement policies had worse negative outcomes in terms of violence in those places that have more adverse socioeconomic conditions. The analysis uses the case study of the state of Guerrero, Mexico, a region where the conditions of violence, drug trafficking, poverty and inequality have the highest rates of the country. The analysis uses a qualitative approach based on observation and interpretation of data in two levels: in the units of analysis of its 81 municipalities and in the geographical analysis of its seven regions. The main findings suggest that while there is no strong evidence to support the proposition about the relationship between violence and socioeconomic conditions, there is some evidence that suggests a relationship between low levels of socioeconomic conditions and drug production activities. It also suggests that the regions with more adverse socioeconomic conditions were affected in higher levels by the policies of reinforcement. The findings pretend to be relevant for future design of policies seeking to address the problem of drug trafficking.

*To the 43.  
For the importance of not being indifferent.*

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## INTRODUCTION

*You can't even call this shit a war.  
Why?  
Wars end.  
The Wire. Season 1, Episode 1*

In Mexico, since 2006 more than 100,000<sup>1</sup> people have died, 8,000 have disappeared<sup>2</sup> and 280,000 have been forcibly displaced (IDMC, 2015) as a result of drug related violence. According to the Armed Conflict Survey 2015,<sup>3</sup> the number of casualties are only surpassed by the civil war victims in Syria and Iraq. The issue has not only created an environment of insecurity in many regions but also political instability. Although these negative outcomes are related to the drug trafficking activities, they cannot be fully explained only in terms of the illicit trade of narcotics. What has to be taken into consideration is that what changed in 2006 was the governmental response to this activity. The character of the state's counter narcotics response was punitive and followed the inclusion of the security sectors, efforts and budget in order to combat the illegal drug trade. However, and in the same way it has been documented in other cases of security reinforcement (Miron, 1999), what followed the strategy was an immediate escalation in the levels of violence. The policy that was implemented to combat the illegality of the narcotics trade, triggered the conditions for violence and more negative than positive results.

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<sup>1</sup> The data is not precise. In March 2014 Mexico's National Public Security Ministry reported that in the first 14 months of the administration of President Enrique Peña Nieto, the country recorded 21,258 deaths related to organized crime and drug violence. Previous reports regarding the former president Felipe Caleron are still in debate. According to newspaper Milenio (that has maintained an accounting of deaths related to drug violence since 2007) the number of deaths during the six years of Calderon's government was 65,362.

<sup>2</sup> Official data from the federal government from May 2014. However, the previous administration had reported 20,000 from 2006 to 2012.

<sup>3</sup> Internal Displacement Monitoring Center, Mexico's report. Retrieved June 4<sup>th</sup> 2015 <http://www.internal-displacement.org/americas/mexico/summary>

Following this argument, this thesis considers that the main problem with these types of responses is that they approach the issue only with an emphasis on the criminal side of the trade. In former president Felipe Calderon's words, the fight is against the "criminals and the evil that they represent".<sup>4</sup> As a result, these kinds of policies usually tackle the problem on the basis of immediate and visible activities but do not take into consideration the structural causes for criminality. Another outcome of this perspective is the fact that there is practically no conceptual differentiation between for instance, people that grow drugs, usually small, poor farmers, and the organizations that distribute the product, who are in charge of the trade and are usually the ones involved in violent events. Bearing this in mind, the theoretical framework used for this thesis, does not restrict the explanation of the problem of drug trafficking exclusively to security matters but takes into account the structural causes of crime and violence that include poverty, inequality and lack of development. In addition, the conceptual proposition also seeks to make a distinction between the different activities related to drug trafficking.

This being said, the main research question that structures this work is *whether socioeconomic conditions such as poverty, inequality, and lack of development can be significant factors that make specific regions more prone to drug trafficking activities (including drug production) and to its negative effects, such as violence*. Due to the fact that there is no previous relevant literature and empirical research focused on Mexico that takes this conceptual proposition into consideration, this thesis first aim is to pin down hypothesis that tests the level of significance in the relationship between socioeconomic conditions and rates of violence. Additionally, it will test

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<sup>4</sup> Felipe Calderon's speech on June 23<sup>rd</sup> 2011, last retrieved on June 3<sup>rd</sup> 2015, <https://www.youtube.com/watch?v=xanUnVmLORE>



relations of socioeconomic variables with other indicators related to drug trafficking, such as number of Drug Trafficking Organizations (DTOs) that have a presence in a particular territory or the amount of drugs that are produced in that same territory. The first hypothesis (H1a) tests whether there is a relation between low levels of socioeconomic conditions and high levels of violence. The second (H1b) examine whether adverse socioeconomic conditions have a significant relation with levels of drug production. The third proposition (H1c) brings up the question whether drug production has a significant relation with levels of violence. Since the theoretical framework also discusses the argument that supports the relation between the reinforcement of security policies and the increase of violence, this research also proposes a hypothesis that test its effects. Following the main proposition related to the structural causes for violence, this hypothesis (H2) tests whether policy enforcement had more negative effects in terms of violence in those municipalities that have higher rates of adverse socioeconomic conditions.

To test the arguments, this thesis uses as case of study the state of Guerrero in Mexico. The justification for the selection basically consists in the fact that this state is one of the regions that has registered a higher impact in terms of the increase of violence during the last years. In fact, it is currently the state with the highest rates of homicides in the country and also the one with largest opium production. The region, traditionally one of the poorest and underdeveloped, has also gone through an environment of political and social instability for years. In its territory there are not only presence of DTOs, but also guerrilla groups, self-defense groups and strong social organizations. Its crisis of governability and violence reached one of its highest points in September 2014, when 43 rural students were killed in the city of Iguala, in an event in which the local police participated, as well as the mayor of the city and the local gang that controlled the

area. The case combined all the elements that lead to the conclusion that the problem of violence must have other variations that are not only related to drug trafficking activities, but that must have links with socioeconomic conditions, a lack of development and weakness and even an absence of the state.

The analysis of the case study is supported by a qualitative approach based on the data observations for each of the 81 municipalities of the state. These observations were done using a database containing indicators of socioeconomic conditions, such as income, education, children mortality rate, inequality and marginalization; and drug trafficking indicators such as homicide rates, DTOs, and rates of drug cultivation. It also includes other variables such as presence of guerrilla and self-defense groups. The first part of the analysis corresponds to the observation of the cases in order to find patterns and correlations among the variables. The second part is focalized in a geographical analysis of the seven regions of the state. With the same indicators, these observations, supported by the use of maps, allowed visualization of the state in its areas of conflict. What the research finds is that while there is no significant relation between socioeconomic conditions and violence, socioeconomic conditions may seem to have an impact in the production of drugs. In other words, poverty and lack of economic mobility could be a factor that influences the production or cultivation of drugs in specific regions. In the case of the effect of the policy enforcement on the levels of violence, there is some evidence to suggest that these policies had a higher negative effect in those regions and municipalities that have the worst economic conditions.

The thesis is structured as follows. Chapter I explains in detail the research methodology and the description of the data used in the analysis. It also discusses some concerns about the dataset and

the limitations of the scope. Chapter II is dedicated to the discussion of the theoretical background that supports the analysis and explains the relationship between drug-traffic and violence with economic inequality and development. Its main goal is to critically discuss how the international prohibition ideology has influenced the approaches to understand and evaluate the problem from its origins. Chapter III explains the specific political, historical and structural conditions that surround the illicit drug market in Mexico and the current composition of drug cartels, the territories that they control, and the drugs they trade as well as the other activities in which they are involved. It also includes the character of the governmental responses in this area. Ultimately, it tries to answer the question of “how we got here”. Chapter IV is dedicated to the description of the case and the analysis with the discussion of results. Finally, it presents some conclusions that address the main findings, the questions that the research leaves open and a reflection focused on how this kind of approach could influence policy makers in the design and implementation of policies that are actually intended to tackle the issue of drug trafficking and drug violence with responses focused on the structural roots of the problem.

## **I. RESEARCH METHODOLOGY**

This chapter describes the research methodology followed for the theoretical approach and the analysis of this thesis. The first section deals with the research questions and the hypotheses that structure the work. The second section consists on the description and selection of the method, the data collection and measurement, and it also includes some concerns regarding the dataset. The third part discusses the justification for the case study selection, the time frame and some limitations of the scope.

### ***1.1 Research Questions and Hypotheses***

The puzzle that inspired this thesis was the discussion on the factors that have brought Mexico to its current crisis of violence, which is related to drug trafficking. From the beginning, the focus of this research intended to address the issue from a multifactorial perspective searching for alternative approaches that could help explaining the structural causes of this activity. Furthermore, trying to reduce the scope of research and to look for other causes of violence that not were only and simplistically related to drug trafficking, the specific question that this research will follow is whether socioeconomic conditions such as poverty, inequality, and lack of development can be significant factors that make specific regions more prone to drug production and to the negative effects of drug trafficking, such as violence. The other intention was to start differentiating the acts that correspond to the activity of drug trafficking, which theoretically speaking corresponds to a criminal activity, and the cultivation of illegal drugs, which is currently also considered a felony.

Consequently, the first hypothesis is presented in three different arguments that combine the three variables of violence, drug production and socioeconomic conditions. These are:

**H1a.** Adverse socioeconomic conditions are related with higher levels of violence.

**H1b.** Adverse socioeconomic conditions have a significant relation with rates of drug production.

**H1c.** Drug production has a significant relation with levels of violence.

The second hypothesis focuses on testing the effect that the enforcement policies of the Mexican government in the state of Guerrero and its negative outcomes. Here it will be argued that the reinforcement of security policies against drug trafficking has increased violence. The question would be then in which regions, the policies had a more negative effect, in terms of violence rates, than in others. Then, following the theoretical argument, this research seeks to find whether there is any significant relation between the regions that were more affected by the policies and the regions with more adverse socioeconomic conditions. Therefore, the second hypothesis is:

**H2.** Policy enforcement has had more negative effects in terms of violence in those municipalities that have higher rates of adverse socioeconomic conditions.

## ***1.2 Methods Selection***

This thesis is focused on the case study analysis. The choice for this type of method is mainly based on its potential for achieving validity; its capacity for the development of new hypotheses;

the way it works on finding causal patterns in the context of single cases; and its ability to address causal complexity (George & Bennett, 2005: 19). Since this approach considers structural and historical context it provides the chance to observe and interpret any unexpected aspects related to the research questions, which is not possible to do with exclusively statistical approaches. This approach also allows to identify and include new hypotheses that were not considered at the beginning of the research and could at the end contribute to the theory building. This aspect is relevant because in this particular case, the intention is not to test existing theories, but to find elements and patterns in the data that could help in the process of a bottom-up theory-building scheme (Gibson & Brown, 2009).

The case study approach is also useful for the means of this research as it attempts to understand a contemporary phenomenon in its real life context, and also when the boundaries between the phenomenon and context are not clearly evident (Yin, 1981). The choice of this approach is based on the fact that this research aims to understand the particular conditions of drug trafficking and drug violence within a context of poverty, marginalization, inequality and lack of development. Another important reason to consider is the fact that this type of research design also allows a more exploratory character, which needed in cases like this one, where there is no previous research that combines the suggested variables.

Therefore, in order to find some causal inference this thesis consists of two analytical parts. The first one consists in the historical, political and structural conditions that explain Mexico, and then Guerrero in the context and evolution of drug trafficking and drug violence of the past decades. The aim of this part is to identify the structural conditions and the causal relations between the

variables that reconstruct the study object, not as an isolated phenomenon, but as the result of a chain of events and conditions that have, as well, multifactorial elements.

The second part consists on the qualitative analysis of data. It will use as units of analysis the 81 municipalities that conform the state of Guerrero and a dataset with socioeconomic and drug trafficking indicators. The first section of the empirical analysis will present a qualitative observation based on the dataset of the municipalities' conditions. Using the suggested hypotheses and the relation between variables presented, this part will aim to find if the propositions correspond to the indicators and if some other assumptions could be built through the description, observation and analysis of the data. The second part is also based on the observation but in this case the municipalities are regrouped in seven regions, according with the official economic division of the state. These observations are intended to find patterns mainly on the areas of cultivation and the regions with high levels of rivalry between DTOs and therefore with high levels of violence. This last part is supported with the visualization of maps and regional localization.

### **1.2.1 Justification for the Case Selection**

Guerrero was selected as the case study because it is the state where the three main variables of this research –drug trafficking, drug violence and lack of development- present themselves in extreme conditions. While there are two states (out of 32) that have higher indicators of poverty and underdevelopment, Guerrero is at the same time the state currently presenting the highest levels of violence and political instability. The state has had a history of strong social mobilization and even the presence of guerrilla groups along with political violence. Guerrero's characteristics

will allow to identify how structural and historical conditions are deeply related with the events and variables that this thesis aims to explore.

Regarding the time frame, the intention is to identify the events that in the short time have led to the critical conjecture of the last years that started at the end of the eighties, passing through the nineties and the first years of the two thousands. For the analytical part this research uses indicators of violence from the years 2006 and 2013. The rationale for choosing this time period has to do mainly with the second proposition that related with the effects of the reinforcement policies. Since these policies changed at the end of 2006 with the beginning of Felipe Calderon's presidency, the comparison between rates from 2006 and 2013 can help visualizing those places where violence had more effects. In the case of 2013 is because is the last and most accurate existing data of homicide rate that is currently available.

### **1.2.2 Limitations of the Scope**

Among the limitations regarding the scope of the research and the methodology selection the focus the analysis in a single state, it could be mentioned the impossibility to generalize the results. While internal validity is very high, external validity is very low. However, in the particular case of drug trafficking and drug violence in Mexico it is important to analyze the specific conditions that has made some states more prone to develop the drug market –production and distribution- within their borders. The case of the southern state Guerrero for instance, as long as the cases of Michoacan and Jalisco, is different from the border states where their geographical localization made them “natural” territories for the development of the trade. Even though the case study presents its own



limits for generalization, it could be useful in opening new debates to examine the causal relations of variables that are not frequently analyzed.

### ***1.3 Data Collection and Measurement***

In general, because of the illegal nature of the activities related to drug trafficking, the data recollection always presents a problem of accuracy and inconsistency. In this case, the database used for means of this research was filled with data from different sources. Most of it corresponds to official sources that are publicly available through several governmental databases; the rest was mainly obtained through information access request according to current Mexican laws of governmental transparency. Some of these requests were not positively answered or in some cases were partially answered. In these cases, specific details were validated through media enterprises. In other cases such as the mentioned case of homicide rate, there were two different sources available, but only one is used in this research. The following is a description of each variable, its source and its measurement for the analysis.

In the case of Homicide Rate, the data used corresponds to the National Institute of Statistics (Inegi), which quantifies death certificates at municipal level. The rate was calculated with the number of homicides per 100,000 inhabitants in the case of each municipality. Regarding the presence of DTOs, governmental information requested according to the law of transparency (Application number 001700116115)<sup>5</sup> only provided presence of DTOs by state and some regions per state. Due to this fact, the data was complemented with more specific information published

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<sup>5</sup> All the applications can be consulted in [www.infomex.org.mx](http://www.infomex.org.mx)

by newspaper *Milenio* that affirms that the data comes from governmental intelligence reports and that the documents are in the custody of the reporters that sign the article. Although it does not specify if it was obtained by an information leak or by other means, the data was validated through other media enterprises and specialized articles.

What is important to point out is that according to the mentioned data, 62 of the 81 municipalities (76% of the total area) register the presence of DTOs. The rest, however, are not free of criminality due to the fact that in this regions what stands out is the presence of local gangs mainly dedicated to extortion and kidnaping. In addition to this situation, in some municipalities, two, three and sometimes four DTOs fight for the control of the territory. For the purposes of the analysis, the presence of DTOs was used to reveal the level of competitiveness and rivalry in specific regions. The measurement was simply numerical, indicating the number of DTOs that have presence in the region.

In the case of drug production, the data used was found in the archives of previous public information requests (Application number 000700213814). The data regarding drug production refers to the number of hectares of opium and cannabis that were seized by the army since 2000 to 2014. The information had some mistakes that were removed. For instance, this database mentions the names of Cerro El Gallardo, Degollado, Manuel M. Dieguez, Tlacotepec and Altamirano that do not correspond to current municipalities of Guerrero. Degollado and Tlacotepec are municipalities of Jalisco and Cerro El Gallardo and Manuel M. Dieguez were not found in the complete list of Mexico's municipalities. Altamirano's data was added to Pungarabato, because

the city corresponds to this latter municipality. For the purposes of the research, there were we only counted the seizures that corresponded from the year 2006 to the year 2013.

All the socioeconomic variables were taken from official sources. Children Mortality Rate, Years of Education, and Income correspond to data from the United Nations Development Program. The Gini index to measure inequality is calculated by the National Council for Social Policy Evaluation (Coneval by its Spanish acronym). The Gini index refers to the economic inequality of the society measured with the concentration of the income among a specific population. It takes values from 0 to 1, where 1 represents the highest inequality and 0 the lowest. When a value is closer to 0 means that there is equity on the income among the population of that specific region. Finally, this author decided to add the presence of self-defense groups and guerrillas as a variable that could give a proxy of political instability. The data for the presence of self-defense group was obtained from a report published by the Human Rights National Commission in 2013. The data for the presence of guerrilla was taken from media enterprises.

### **1.3.1 Data Concerns**

The methodological concerns regarding the homicide rates official data are that there are two official sources for the homicide rates that differ between each other. One is the National Institute of Statistics (Inegi by its Spanish acronym) and the National System for Public Safety (SNSP by its Spanish acronym). The first takes its data from death certificates at state and municipal level; however its publication does not work on fixed schedules and by the time of this research for instance, the most recent data was from 2013. The main problem with this data is that it is

impossible to identify homicides related to drug violence and other kind of homicides. On the other hand, SNSP publishes<sup>6</sup> its own database of federal jurisdiction and local state jurisdiction per municipality, which is actualized each month. However, it also does not differentiate between homicides related to drug violence and other kind of homicides<sup>7</sup>. The main cause for the differences between both databases is that Inegi counts death certificates and the SNSP counts preliminary investigations, which means that if there is one, two or more victims found in the same event, it is registered as a single case. Another issue as a result of no differentiating the types of homicides is that many of the possible research lines are almost impossible to follow. For instance, in the case of drug related violence it is very important to know how the victim was killed and found (with firearm, signs of torture, decapitation, dismemberment, if the victim was found with some kind of messages, etc.).

Media, the other source for data, is even more inaccurate. Some national newspapers, such as *Reforma* and *Milenio*, have been making their own count of homicides related to drug violence since 2007. However, their data holds on local correspondents reports and their complete databases are not public available is difficult to corroborate their precision. Facing these problems, some scholars (Osorio, 2011; Rios, 2012) have based their researches on building their own databases by media monitoring. Nevertheless these scholars not only depend on the accuracy of media reports but also face the fact that in some regions media has stopped reporting violence related issues due to threats or attacks from the criminal organizations. In other cases, factors such as the

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<sup>6</sup> The SNSP published its data through its website <http://www.secretariadodejecutivo.gob.mx/> last retrieved June 2nd 2015.

Media Agreement for the Violence Coverage signed in 2011 by Mexican media, has made the media information incomplete<sup>8</sup>.

It would be valuable to have more specific information regarding the characteristics of the conditions of the homicides, as it could be useful in further analysis to determine the violent behavior of specific DTOs, and if there is any striking difference between the types of homicides per regions. Some research such as the one done by the Trans-Border Institute, “Drug Violence in Mexico” (Molzahn, Rodríguez & Shrink, 2013), makes reference to some database that by the moment was publicly available, where the government detailed deaths related to drug violence with the specific conditions of the murderers. However, the access to this data was restricted at the end of 2012 when the new government took office. A public information request of that database was made for this research (Application number 001700116015) but even though attended by the Mexican government, the request was not solved in a favorable way. Finally, regarding the indicator for cultivation of drugs, it has the problem that it can only be calculated through the number and size of seizures and these depends of many factors. For instance, the capacity and the priorities of the security forces, the use of bribes and the organization of the DTOs. All these limitations also make the data not as accurate as necessary.

After stipulating the method selection and the data that is used for the analysis of the case, the next chapter discusses the theoretical arguments that support the propositions of this thesis.

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<sup>8</sup> One of the agreements of this pact for instance is that media does not reproduce the messages that DTOs leave with their victims.

## **II. DRUGS AND VIOLENCE AS DEVELOPMENT ISSUES**

This chapter is dedicated to the discussion the theoretical framework and concepts that are used in this thesis. The first section corresponds to a literature review focused on the topics that are most studied in the subject of drug trafficking with an emphasis in the approaches that have studied violence and its cycles. The second section discusses the concepts of crime and inequality and how they have been explained in preceding analysis. The third part of this chapter bring out the concept of development as a variable that could contribute to the study of the issues related to drug trafficking.

### ***2.1. The Cycle of Violence***

Most of the scholar research focused on the illegal trade of narcotics cover three general topics: one is related with the nature of the organized crime and the DTOs including smaller gangs (Natarajan, 2000; Beitel, 2013); the second has to do with patterns of consumption among members of drug organizations or smaller drug dealers (Altschuler,& Brounstein, 1991); and the third covers the relation between crime and violence (Miron, 1999; Snyder & Duran-Martinez, 2009). There are other topics, mainly related to policy approaches to the issue, mainly portray case studies or comparative studies of the application, effectiveness or ineffectiveness or of certain policies applied in local and national levels (Greenwald, G., 2009; Caulkins & Pacula, 2006). In relation to the third big topic, crime and violence, there has also been some research done related to the correlation between the increase of violence rates and reinforcement policies against drug-traffic (Espinosa & Rubin 2015; Garzon 2010; Miron 1999; Sneyder & Duran 2009; Werb 2011).

During the past years, after the increase of violence related with drug trafficking in Mexico, much research has been done also related to this particular issue (Molzahn & Shirk, 2013; Osorio, 2011; Rios, 2012; Wright, 2009). In the topic of the changes in the nature of the DTOs, for the difficulty that this kind of research implies, there has been also an increase on the publication of profiles of drug lords or about the history of a particular organization. However, these kind of works do not have academic accuracy since they are mainly done by journalists (Gomez & Fritz, 2005; Hernandez, 2012; Osorno, 2011).

In general, there is an agreement that violence has been used by criminal organizations in order to enforce agreements in the frame of illegal transactions and also to protect or defend a territory (Osorio, 2011; Valdés, 2013). However, it is not true that all illegal markets are *per se* and always violent. In “normal” conditions, violence can be triggered mainly because of three scenarios: a contract failure (Valdés 2013) that includes treason, cheating, whistle or blowing (Payan 2006: 44); a fight over the monopoly of the leadership (Valdes 2013); or, competition (Payan 2006). For decades, not only in Mexico (Osorio, 2011) but also in many parts of the world, drug trafficking and other illegal activities have been carried out without the numbers and the symbolism that Mexico has gone through (Rios, 2012). Therefore, while violence is the way to *solve* disagreements in the frame of illegal activities and among illegal organizations, it is usually not used in a large-scale manner (Osorio, 2011).

According to Miron (1999) what changes the intensity of violence is precisely the enforcement policies that intent to eliminate the drug trafficking. Violence then obtains new representations and dynamics (Chindea, 2014; Osorio 2011). The first one is related to violence that is caused as an

outcome of the confrontation between the DTOs and the security forces: the second one is the one related to intra and inter cartels violence in actions of succession and competition respectively. The third one is between the DTOs and the civilian population. Chindea (2014) also includes a fourth representation of violence, which is the confrontation between different security forces: army, national police, state police, municipal police, etc. Not as evident as the others, this has to do mostly with the chain of command among them. Drug related violence basically grows because of the increase in competition that is caused by the enforcement of the policies, which trigger a series of negative chain effects.

What it can be identified from the review is that it is focused on the outcomes –violence, criminal structures, drug consumption- but not in the causes of drug trafficking. While it is of course important to understand the dynamics of violence and its causes, the problem that is less frequently analyzed is the conditions under which the illegal activities such as drug trafficking evolve and that can give a bigger and less reductionist picture of the issue. While the problem of violence has been explained as the outcome of drug trafficking and the enforcement policies, it has not been explained as the outcome of a problem that may have other structural origins.

Since the intention of this work is to analyze the problem from the point of view of a development issue and not exclusively from the security approach, the next section will discuss the theoretical background that has dealt with different approaches to understand the causes of crime/drug trafficking and its relationship with inequality and development.



## ***2.2. Crime and Inequality***

While there is an extensive literature on the relationships between crime, violence, inequality and development (Bourguignon 1991; Fajnzylber, Lederman & Loayza 2002; Heinemann & Verner 2006; McIlwaine 1999; Neumayer 2005), there is not much of a mention of the particular case of drug trafficking. During the 1970s and 1980s, crime and violence started to be seen as a form of resistance among economically and socially disadvantaged individuals (McIlwaine 1999). However, during the 1990s, there was a change of paradigm that started considering rates of property crime were lower in developing countries compared with developed nations. The argument consisted in the fact that while crime was higher in the North because it was the more developed, violent crime was more prominent in the (Rogers, 1989 & Zveki, as cited by Mcilwaine 1999). Violence and crime then, were seen as factors that undermined the development of nations not only in economic growth but also in investment (Ayres 1988, as cited by McIlwaine 1999).

Fajnzylber et al. (2002) found that greater inequality is associated with higher intentional homicide and robbery rates. However, in his research the level of income per capita is not a significant determinant of national crime rates. Changes in income distribution, rather than changes in absolute levels of poverty, are associated with changes in violent crime rates (cited by Heinmann and Verner, 2006: 12). In a previous research, Fajnzylber et al. (1998), had also considered that drug production and drug possession are both significantly associated with higher crime rates and that the incidence of intentional homicide is statistically larger in countries that produce drugs.

On the other hand, following studies (Heinmann & Verner, 2006) suggest that overall levels of development are less important in explaining violence than the extent of inequality, the levels of growth and the pre-existing level of violence. They argue that tackling inequality is the key for violence prevention. “Growth that is not pro-poor is unlikely to bring about a significant reduction in violence levels” (Heinmann & Verner, 2006: 15). In this sense, the link between inequality and violence had important implications for the type of growth that is conducted to violence prevention.

In a recent analysis of the economic impact of the drug trafficking industry in Mexico, Rios argues acknowledges that the large majority of individuals that get involved in drug production do so because of a context of multidimensional poverty (2012c: 14). As she argues “the drug industry has been a very important source of income for places that lack basic vital services” (Rios, 2012c: 14). Rios, who defends the current mexican government strategy regarding drug trafficking, however acknowledges that even though drug traffic has a negative economic impact for the country, drug flows are in fact beneficial for some local, less diversified economies. In such places, she goes on, drug cartels are sometimes the only source of employment, income and investments (Rios 2012c, 13). “Although the aggregate drug traffic is generating negative economic consequences for Mexico”, she argues, “it is important to acknowledge that drug traffic cash flows are in fact helping some Mexican communities to somehow alleviate a grinding stage of poverty and underdevelopment. In fact, for almost all drug-producing communities, the drug traffic industry seems to be the only source of income” (Rios 2012: 15). For Kay (2001, as cited by Heinmann and Verner, 2006), rural violence in Mexico has to do with its unequal and exclusionary agrarian socioeconomic system. However, violence and violent crime are related, he claims, to

several factors, including the political context. In other study, Marin (2002, as cited by Rios 2012c), shows that in many rural local economies are unable to compete in the agricultural markets and therefore they involved with drug cultivation.

Other approaches consider that economic development is not necessarily linked with raise in crime and violence and insist that other conditions are necessary for them to take place (Bourguignon, 1999). From this perspective, poverty and inequality are determinants of crime and violence but there are two other motivations. One is the economic motivation in the appropriation of somebody else's property and the other is the pursuit of illegal activity even at the risk of being caught and punished. Criminal offenders, he continues, "are likely to be found among those who have relatively more to gain from these activities and relatively little to lose in case they are caught" (Bourguignon, 1999: 171).

What all the theoretical arguments miss is the fact that in the case of drug trafficking, there are different parts of the chain of trade. For instance even when some of these theoretical approaches consider that there is a causal relation between levels of criminality with poverty and inequality, there is no argument that explores, for the case of drug trafficking, the different levels of involvement in the "criminal" activity.

### ***2.3 Drugs and Development***

In general, there is an agreement that crime and poverty are related and in the case of drug trade, evidence shows that its production is related with adverse socioeconomic conditions. However, in

the case of drug trafficking, there are not many studies that make the actual differentiation between the criminal character of the different parts of the chain of trade, production and distribution. For instance that distinguish between farmers and dealers. While the international prohibition is worried about eradicating drug production (Bewley-Taylor, 2012), it has ignored for instance the reasons why people grow drugs, which responds to conditions where there are no other chances or routes (Smith, 1992). There are not as well, recent approaches that discuss the roots of the illicit market and the conditions under which it generates. This is why here, we considered important to point out a perspective that considers drug trafficking not only as a criminal, illegal and violent activity, but that also as a development problem that has its roots on conditions of lack of opportunities for social mobility, opaque governance and lack of viable economic alternatives, the lucrative model of drug trafficking makes poor regions more prone to get involved with this activity (Buxton, 2015: 15).

These conditions make this regions' population vulnerable and needed of political and economic responses (Buxton, 2015: 15) that go beyond the simple law enforcement or militarization of the problem. These responses would have to be based on efforts to solve the “underlying links of poverty an underdevelopment” (Smith, 1992: 114). What this suggests is the necessity of start looking at the problem from a broader framework where crime could not only attacked on its representations but on its origin. The development approach would not be the final solution to the narcotics problem, Smith (1992) argues, but it represents a way of dealing with it from structural levels and causes. This does not mean that development approaches have not been taken into consideration in the international debate. In a 2001 review by the United Nations International Drug Control Programme (today UNODC), it was considered that “where law enforcement (...) is

not accompanied by development measures, (...) it will induce fierce resistance from farmers and their organizations and frequently result in the diversification of illicit crops to new areas”. With this many alternative development measures have been implemented in order to eradicate narcotic crops. However, in focusing the eradication at this level it has only criminalized poverty and of course it has not solved poverty.

Summarizing, in the chain of events that goes from poverty to crime and the participation in illegal activities that in specific circumstances lead to violence, there is also a need for theoretical debate and empirical analysis that discusses this relations. This suggests that specific development approaches must be taken into account to explain the issues related to crime and in this particular case, drug trafficking. In the next chapters, we use these theoretical foundations in order to analyze the case of Mexico and particularly the case of the state of Guerrero, using socioeconomic indicators in order to test our assumption that adverse economic conditions of inequality and poverty are related to the grow of the narcotics market and ultimately with violence.

### III. THE PUZZLE OF DRUG TRAFFICKING AND DRUG VIOLENCE IN MEXICO

This chapter reconstructs the process that led Mexico to the actual state of affairs related to drug trafficking and drug violence. The first part discusses the political and structural conditions that combined and turned this country in one of the biggest drug producers of the world. The second part presents data related to the actual characteristics of the market, in terms of DTOs presence and control over which territories and the production and cultivation of narcotics.

#### *3.1 Historical, Political and Structural Conditions*

The current situation of drug trafficking in Mexico are the result of a combination of several factors that had to do with political and economic conditions related not only to internal, but also to external circumstances. In order to understand this *perfect storm* (Krauze, 2012) that has created violence, thousands of killings, political instability in some regions and even forced human displacement, first, the problem has to be disintegrated in its structural levels and historical conditions that lead to the critical conjuncture of the past eight years. The main goal is to point out that even though drug trafficking in Mexico has its particularities, it is not a phenomena that has shaped itself or in isolation, but that has to be understood as the outcome of socioeconomic conditions, political changes, and also internal and external policies.

There are six moments that can reconstruct this puzzle. Four are related to internal changes: first, the economic crisis of the 1980s and the market liberalization of the 1990s; second, the political

change and decentralization during the nineties and two thousands; third, the changes in the correlations of forces between cartels during the two thousands; and fourth, the enforcement of the policies in 2006 during Felipe Calderon government. The other two are related to external events and are the war on drugs in Latin America and the role of the USA and the guns market. The specific conditions and circumstances of each of them are dismissed bellow. They are arranged more or less by temporality, even though many of the events overlap in time and space with others. For being one of the time frames of this thesis, the case of the enforcement of the policies in 2006, this will be discussed in a separate section.

Followed by the liberalization of the markets in line with neoliberal policies during the nineties, the second growth of the market of narcotics in Mexico after the sixties occurred during this period. Mexico, along with Central America and the Caribbean, went through economic adjustment, contraction and rising levels of unemployment in the eighties decade, which among other outcomes, increased the benefits of participating in the illegal market (Buxton, 2006) for some sectors. With the Free Trade Agreement between the US, Canada and Mexico (NAFTA) implemented in 1994, the country got implicated in agreements that exceeded its capacities. NAFTA made almost impossible for Mexican farmers to compete with the subsidized prices of imported products. Far from the motivations of crime, small farmers started to cultivate mainly marihuana and opium as a way of survival (Valdés, 2013; Wallace & Boullosa, 2015). The crossing of goods between borders also grew exponentially after NAFTA (Krauze, 2012) which made it easier for the DTOs to transport drug shipments and more difficult to the authorities to detect them (Wallace & Boullosa, 2015). The market liberalization, and specially NAFTA, created a cycle that

increased the production and at the same time opened bigger chances of taking this bigger production through the border.

Among the external events that had an effect in the crisis of violence in Mexico, the situation in other countries of Latin America, mainly Colombia, played a fundamental role. With the front against drugs implemented by the Colombian government with support of the United States at the end of the nineties, the routes of trade had to change. As the result of a *balloon effect* –the geographical displacement of the drug trafficking activities to other region as a result of reinforcement policies (Mora, 1996)- there was a change on the routes of Colombian cocaine to the US. While shipments were transported before through the Caribbean to Florida they started to be carried through Central America and Mexico in order to reach the US (Guerrero, 2014). This caused also an increase in the violence in Central America and in the number of gangs in the area.

By those years, at the second half of the nineties Mexico went through a series of reforms in the political and electoral field (Woldenberg, 2013) that had an impact in other areas. In 2000, and after 71 years without changes in the ruling party (Institutional Revolutionary Party, PRI), there was an electoral democratic change of regime. For the first time after the Mexican Revolution of 1910, a party different from the opposition –the National Action Party (PAN) won the presidential election. With the change of party and an organizational restructuring of the government, many of the former habits –like the *plaza* system- started to change. This informal hierarchical and informal structure, controlled by the PRI, consisted in a system where drugs lords controlled a region – *plaza*- with knowledge of the local authorities and even security agents who received a bribe (Hernandez, 2010; Valdes, 2013).



While corruption did not disappear, it changed its rules (Rios, 2012: 6). The former strong presidential power decreased and the local -legal and illegal- powers diminished. When the PRI lost the government “the basis of the system collapsed” (Grillo, 2011, as cited by Krauze, 2010). Without the central control of the political and police areas that was executed before from the presidency the informal rules that regulated the illicit business did not applied anymore. (Krauze, 2012; Rios, 2012). In a way, the government stopped having control of the trade.

Another event that started to synchronize in those years was the fact that there were some important divisions between the big groups that controlled the drug trade. Traditionally, Mexican DTOs based its operations on informal rules that favored trust within the organizations where there were family relations and communitarian nets.<sup>9</sup> According to the former head of the Mexican intelligence agency during Calderón’s government, Guillermo Valdés (2013), the lack of this familiar net inside the *Golfo* cartel is what marks a before and an after in the recent history of drug trafficking in Mexico. The *Golfo* cartel was in confrontation with the Sinaloa, Juarez and Beltran Leyva (Grillo, 2011, as cited by Krauze, 2012 and Valdés, 2013). In order to protect himself from its enemies, its leader, Osiel Cárdenas created a personal guard with elite members of the Mexican army that deserted their ranks<sup>10</sup> and afterwards also by *ex-kaibiles*<sup>11</sup>. Former soldiers with training in the US, *Los Zetas*, became a powerful group that with the time started to gain more and more responsibilities within the organization. When the *Golfo* cartel started moving south to the state of

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<sup>9</sup> The clearest examples of this are for instance the Beltran Leyva cartel, formed by five brothers; or the Arellano Felix (Tijuana cartel) formed by seven brothers and four sisters.

<sup>10</sup> Afterwards ex kaibiles also incorporated to the group. The kaibiles are members of paramilitary groups created by the Guatemalan military dictatorship. They are accused of several killings of civilians, including the massacre of Dos Erres where more than 200 people were killed.

Michoacan in order to expand its territory, Los Zetas were in charge of the logistics of the operation. The extreme violent group got involved in other criminal activities such as extortion and kidnaping. At the same time they began to sell their protection to other smaller and local criminal organizations that ended under their control. *Los Zetas* did not think as a criminal organization but as a paramilitary group which aim was to control some regions using terror tactics such as decapitations, massacres and propaganda in internet (Grillo, 2011, as cited by Krauze, 2012). In fact they were the ones that started to sign their killings with messages directed to other organizations and sometimes even the government (Atuesta, 2015).

Among the external factors that came together and led to the crisis of violence, is the role of the US. Besides its role as the biggest market for drug consumption, the United States, specifically its government and the direction of its policies, have been responsible for much of the outcomes of the war in drugs in Latin American countries. In the case of Mexico and according to the US Department of State since 2008, this country has provided \$1.1 billion dollars as part of the Merida Initiative to the Mexican government, mainly for security forces equipment and training in order to make the war on drugs more effective inside the country. US has also trained more than 7,500 Federal Police Officers and to the Navy in tasks of security and law enforcement<sup>12</sup>. While these circumstances prepared the field that led to the crisis of drug violence in Mexico, it was the specific response to the Mexican government that finally triggered the situation.

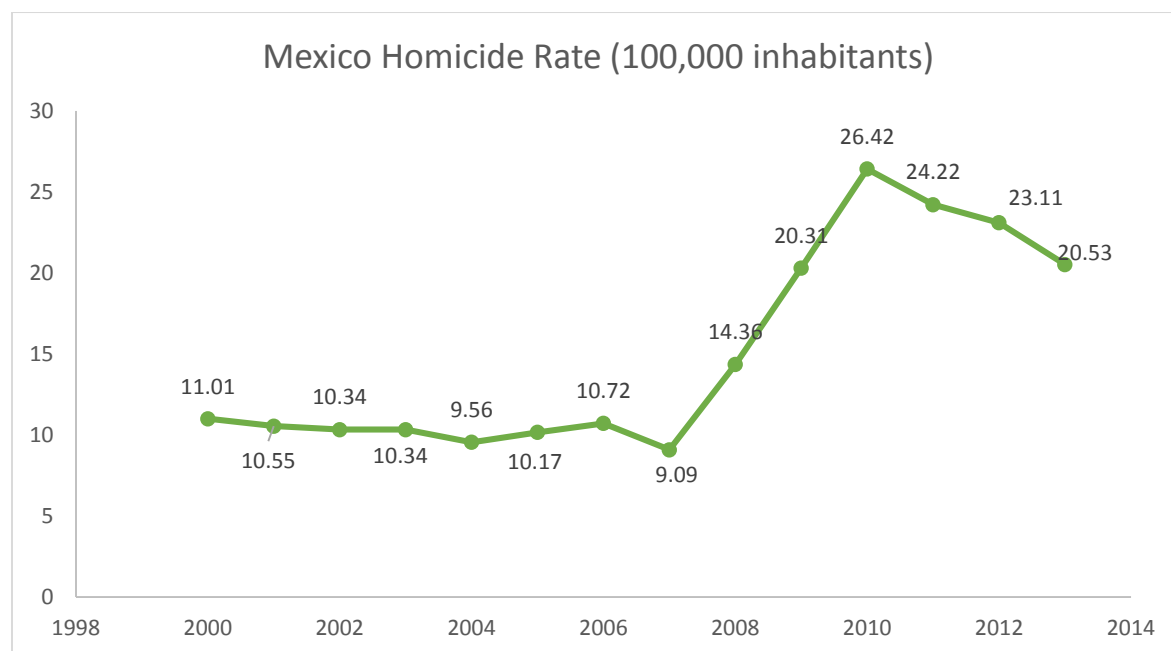
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<sup>12</sup> US Department of State. International Narcotics Control Strategy Report 2013  
<http://www.state.gov/j/inl/rls/nrcrpt/2013/vol1/204050.htm#Mexico> last retrieved June 3, 2015.

### ***3.2 Effects of the Governmental Response After 2006***

The most evident effect of the crisis of violence was the dramatic increase in the homicide rates in the country after the implementation of a reinforcement policy in 2006 (Figure 1). The consequences do not limit to the number of dead people but to an increase in the rates of people missing and also for those who have been forcibly displaced (IDMC, 2015). As part of this new strategy at the beginning of his presidency, former president Felipe Calderon ordered the mobilization of the army, navy and the federal police to regions where there was presence of criminal organizations linked with the drug trafficking. For some analysts, the redirection of the public safety and security policy was his attempt to gain legitimacy after the post-electoral conflict (Castañeda, 2012; Osorio, 2011), after a much closed elections that he won for half a percentual point.

In a recent report from the Federal Audit Office, it has been stated that the strategy also created more criminality and, as a result of the militarization the human rights violations also increased. At the same time, the citizen's perception of the public unsafety increased and the thrust in the security institutions decreased (ASF, 2015). In fact, follows the report, those regions that have received more budget for public safety tasks are the ones that have perceived a higher impact on terms of violence and in other types of felonies. For instance, from 2007 to 2013, extortion increase in 146.4; kidnappings in 250% and homicides in 66.7%.

**Figure 1. Mexico Homicide Rate (2000-2013)**

### 3.3 Overview of the Conditions of the Drug Market

According to the US Department of State<sup>13</sup>, Mexico is the major transit and source country for illicit drugs to the United States. This includes cocaine, marihuana, heroin and methamphetamines. While it does not produce cocaine, this governmental source calculates that 90% of this drug that gets to the US from South America comes through Mexico. In the case of heroine, the United Nations Office on Drugs and Crime (UNODC)<sup>14</sup> reports that while Peru, Colombia and Bolivia are the biggest producers of cocaine in the world, Mexico is the third world producer of opium,

<sup>13</sup> US Department of State. International Narcotics Control Strategy Report 2013  
<http://www.state.gov/j/inl/rls/nrcrpt/2013/vol1/204050.htm#Mexico> last retrieved June 3, 2015.

<sup>14</sup> Referencia UNODC REPORTE DROGAS

only after Afganistan and Myanmar, which means is the biggest in the Americas. Historically, Mexico has also been the biggest supplier of marihuana to the USA, but the recent legalization of its consumption in some North American states has caused a decrease in the production of marihuana in Mexico. Since the marihuana that is been produced in the US has a better quality (The Washington Post, 2015a), Mexican marihuana is losing the market. For instance, while the amount of cannabis that was seized by US law enforcement agents in the Mexican border has declined in 37% since 2011 heroin has increased three times the amount of 2009 (The Washington Post, 2015a). One of the reasons for the raise of heroin consumption in the USA is the fact that the government has become more rigid with the sale of controlled painkillers. This has turned many pills addicts to try heroin (WashingtonPost, 2014).

In the case of the drug trafficking organizations (DTOs) there have been important changes during the last years, also consequence of the security policies. At the beginning of the 21<sup>st</sup> century there were five big organizations that controlled the market of drugs in the country: *Beltran Leyva, Sinaloa, Juarez, Tijuana and Golfo*. By 2014, the Federal Attorney identified nine big organizations: *The Pacifico cartel, Arellano Felix, Familia Michoacana, Carrillo Fuentes, Beltran Leyva, Los Zetas, Golfo cartel, Caballeros Templarios and, Jalisco Nueva Generacion*. Besides this, the nine organizations control in total 45 smaller gangs that operate within the country (Appendix 1).<sup>15</sup> These organizations have presence in 23 out of 32 states and as it can be seen in the table, the most disputed territories are the northern and US border state of Tamaulipas and the southern state of Guerrero.

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<sup>15</sup> Recent research however, suggests that the number of smaller gangs can be traced to 200 (Atuesta, 2015).

This brief analysis of the historical and socioeconomic conditions of the formation of the illicit drug market in Mexico is necessary in order to understand the complicated dynamics and multifactorial circumstances that led to the development of the market and to the current crisis of violence in the country. This is to understand why, how and under what circumstances the country got to the point of the large increase of violence; it also considers how the events in the macro level affect the micro level in specific region. Therefore, the next chapter focuses on the case study analysis of the state of Guerrero.

## IV. ANALYSIS

This chapter is dedicated to the description of the case and the analysis of the data. The first part presents a detailed portrayal of the case study, the state of Guerrero. The second section includes the analysis of the 81 observations that correspond to the municipalities that conform the state. The third part interprets the data by region, describing and testing links and correlation in the socioeconomic indicators with the data on violence rates and drug trafficking. Finally the fourth part includes the discussion of the findings and the confrontation with the hypotheses presented in the research.

### *4.1 Description of the Case: Guerrero*

The state of Guerrero registers the highest rates of violence, poverty, marginalization, drug production, and DTOs presence of the country. While it has always presented homicide rates that are higher than the national average (Table 1) from 2006 it went from a rate of 25.59 to a rate of 77.84 in 2012. Within its territory coexist five DTOs and at least seven gangs; three guerrilla groups; and 46 self-defense groups (CNDH, 2014; Trujillo & Michell, 2014). Although the origins of these organizations is very different, the common characteristic that can be traced in all of them is State weakness, the lack in the rule of law and corruption in the local governments. According to the 2014 ranking of violence in states and municipalities, Guerrero was during the past year, the second most violent state, only surpassed by Morelos. Three of its municipalities –Acapulco, Chilpancingo and Iguala de la Independencia- are also between the twentieth most violent regions of the country. Acapulco (for third year in a row the most violent) and Chilpancingo, themselves, register the two highest homicide rates at the national level. This last city, the capital of the state,

is also the third national place in cases of kidnapping<sup>16</sup>. The situation during the past years has caused that 15 out of 81 municipalities' public safety is under the control of the federal police and the armed forces (CNDH, 2014).

**Table 1. Homicide Rates. Comparative Mexico and Guerrero (2000-2013)**

Year	Mexico	Guerrero
2000	11.01	26.11
2001	10.55	20.81
2002	10.34	20
2003	10.34	19.48
2004	9.56	19.19
2005	10.17	19.12
2006	10.72	25.59
2007	9.09	24.81
2008	14.36	32.51
2009	20.31	60.11
2010	26.42	50.89
2011	24.22	70.72
2012	23.11	77.84
2013	20.53	67.36

Source. Homicide rate Inegi 2000-2013

Guerrero became a state in 1849, almost 30 years after the Mexican war of Independence from Spain that ended in 1821. Since those years, Guerrero “has been poor, isolated, unequal, *caciquil*, and with a precarious political stability” (Illades, 2014). With a current population of 3’ 338, 000 where 70% live in poverty, the state shares with its neighboring states, Oaxaca and Chiapas, the rates of highest levels of poverty in the country (Table 2). According to the Human Development Index for Mexican Municipalities published by the United Nations Development Program

<sup>16</sup> Consejo Ciudadano para la Seguridad Pública y Justicia Penal, 2015. *La violencia en los Municipios y en las Entidades Federativas de Mexico 2014* [Violence in Mexican Municipalities and States in 2014] retrieved from <http://www.seguridadjusticiaypaz.org.mx/biblioteca/finish/5-prensa/205-la-violencia-en-los-municipios-y-en-las-entidades-federativas-de-mexico-2014/0>



(2014),<sup>17</sup>Guerrero as a state is in the third worst place of human development in the country (only surpassed again by Oaxaca and Chiapas). Cochoapa el Grande, the municipality with the lowest human development rate in Mexico is also in this state where almost half of the 81 municipalities average a very low rate in this index.

Currently, Guerrero lives a political and a security crisis that reached its highest point after the night of September 26<sup>th</sup> 2014 when a group of rural students were kidnaped by the municipal police of the city of Iguala and were handed over to members of the criminal organization *Guerreros Unidos* which has links with the *Familia Michoacana* cartel. The impact of the case caused several demonstrations and forced the federal government to assume the investigations and to implement a special public safety operation in the state. Soon after, the mayor of the city was detained and accused of being the intellectual killer and the governor of the state had to resign (Archibold, 2014; Partlow, 2014).

**Table 2. Socioeconomic Indicators. Comparative Mexico and Guerrero**

	<b>Mexico</b>	<b>Guerrero</b>
GNI (PPP) per capita (in dollars)	16, 110	11, 043
Average years of education	8.6	7.3
Children mortality rate	14	19.11
Human Development Index	.756	.679
Gini	.481	.514

Source. Income World Bank and UNPD; Education, Inegi; Children Mortality Rate, UNDP; Human Development, UNDP; Gini, World Bank and Coneval.

<sup>17</sup> United Nations Development Program, 2014. Human Development Index for Mexican Municipalities 2013 retrieved from <http://www.mx.undp.org/content/dam/mexico/docs/Publicaciones/PublicacionesReduccionPobreza/InformesDesarrolloHumano/UNDP-MX-PovRed-IDHmunicipalMexico-032014.pdf>

However, this was not the first time a massacre obliged a governor to resign in Guerrero. In 1995, members of the state police killed 17 people that were going to a political meeting in the community of Aguas Blancas, located in the municipality of Coyuca de Benitez. The former governor had to resign and although many of the former policemen were detained, they were freed in 1999 (Illiades, 2014; Proceso, 2002a). The massacre originated the birth of the leftist guerrilla group *Ejercito Popular Revolucionario* (EPR), that since its appearance in 1996, has had some splits that have originated at least three other organizations such as the *Ejercito Revolucionario del Pueblo Insurgente* (ERPI); *Comite Clandestino Revolucionario de los Pueblos –Comando Justiciero 28 de junio*; *Fuerzas Armadas revolucionarias del Pueblo* (FARP); and *Tendencia Democratica Revolucionaria* (TDR) (Gil, 2014; Proceso, 2002b; Riva Palacio, 2014 and 2015).<sup>18</sup>

The guerrillas are not the only organized armed group in Guerrero. To these, communitarian police and self-defense groups have to be added. The Human Rights National Commission (2014) reports that during 2013, 47 out of 81 municipalities had a self-defense group in charge of the security of the communities. Another important organization is the Guerrero Teachers Union (*Coordinadora Estatal de Trabajadores de la Educación en Guerrero*, CETEG). Their demonstrations often include vandalizing or even setting fire to governmental offices or local political parties headquarters. In fact, some of their latest actions include several demonstrations in order to boycott the realization of the federal elections on June 7, 2015 (García, 2015). In addition, some of their leaders have been linked with the guerrilla groups (Riva Palacio, 2015).

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<sup>18</sup> It is important to point out that none of these groups have relationship with the drug cartels like in the case of Colombia.

Its geographical position –closer to the center of the country- and proximity with Michoacan –state with the biggest production of methamphetamines- has also made Guerrero one of the most competed and violent territories during the past years. Its soil and topography has made it the major producer of opium of the country (Mirada Legislativa, 2015) and therefore the major source of supply of heroin to the US. Within its territory operate at least five organizations linked with the drug trafficking: *Jalisco Nueva Generacion*, *Pacífico*, *Beltrán Leyva*, *Caballeros Templarios* and the *Familia Michoacana*, and at least seven gangs that are distributed within the territory and that are in conflict for its control. According to data from the National Defense Secretary<sup>19</sup>, from the year 2000 to 2014, the Mexican army has found drug crops of marihuana and opium in 74 out of 81 municipalities, where only Alpoyecá, Benito Juárez, Zuhuatanejo de Azueta, Martir de Culiapan, Marquelia, Juchitan and Illialtenco did not register any seizures. A recent analysis of drug cultivation (Sánchez, 2015), found that four of the seven regions of the state can be considered important areas for the distribution and production of drugs.

The evidence suggests that the multifactorial elements of its social, political and economic context are also related to the levels of violence, criminality and social discontent. Following the argument of this thesis, the causes of violence, are not only the ones related with the drug cartels, but have its roots in more complex dynamics that have been going on for decades and that may be traced in the social inequality. It also suggests that these conditions have opened the opportunity for the production and distribution of illicit drugs. Consequently in order to contrast these statements and

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<sup>19</sup> For this research it was requested information regarding the geographical location of drug crops. However, this was not positively answered. The information that is used here is from databases that are currently publicly available through the information access service of the federal government ([www.infomex.gob.mx](http://www.infomex.gob.mx)) with the registration number 0000700213814.

support the argument, the next section focalizes in the analysis of the data from the 81 municipalities of the state.

#### ***4.2 Analysis of Data by Municipality<sup>20</sup>***

To begin the analysis, we start with the variable of violence, measured in homicide rate. The first thing to be analyzed is the impact in homicide rates from 2006 compared to rates of 2013. As it can be observed in the Figure 1, homicide rates went from 25.59 in 2006 to 77 in 2012 and to 67 in 2013; an increase of 208% in seven years. It is important to point out that 25.59 already was a high number compared to the rest of the country which had an average rate of 10.72, which suggests that there were previous conditions that made the state violent even before the reinforcement..

In the case of the observation by municipality, there are some dramatic increases. Taking into account only municipalities with more than 100,000 inhabitants, **Iguala** had an increase of 333%; **Chilpancingo** in 314%, **Acapulco** increased in 230%, Taxco in 225%, Chilapa de Alvarez 167%; and, Zihuatanejo de Azueta, 124%. There are other cases where homicides went from 0 to 3, such as the case of Juan R. Escudero where homicides went from a rate of 0 to 17, increasing the rate from 0 to 69.77, due to the fact that is a municipality with 24, 365 inhabitants. The same happened in Cualac, with only 7,007 inhabitants, this town went from a rate of 0 to 42.81. In general all of the municipalities increased their rates and only eight registered a decrease, none of them going further than 75% less homicides (Table 2). In the case of the urban areas (more than 50,000 inhabitants), 12 out of 13 presented an increase in homicide rates being Acapulco and

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<sup>20</sup> Map of Guerrero by Municipalities. Appendix 3

Chilpancingo, the capital, the two with the higher increase in this category (Table 3 and Appendix 2.2).

**Figure 2. Guerrero Homicide Rate (2000-2013)**



In reference to the income distribution, 8 from the 10 municipalities with lower GNI (PPP) of the state, have rates of homicides between 19.13 (Jose Joaquin de Herrera) and 145.87 (Coayutla de Jose Maria Izazaga). However, from the 10 municipalities with higher GNI (PPP), with the exception of Petatlan that shows 7.88 of homicide rate, they present rates that go from 41.24 (Arcelia) to 109.49 (Acapulco). In the case of years of education, the regions with lower averages –from 1.14 to 2.69- present ranges between 5.26 and 46.93 in homicides rates. In the case of the 10 with higher average of education, this regions present slightly significant higher levels of violence, with ranges that go from 19.97 (Benito Juarez) and 109.49 (Acapulco) and 140 (Pungarabato). In the case of children mortality rate, the indicator also misses to explain violence. At least with these observations and indicators, it is not possible to find a direct relation with

violence rates and adverse economic conditions. Income, average education and children mortality indicators, register very low rates (or high for mortality) in a great percentage of the municipalities; since violence rates are also high in most of the municipalities they do not help to find any significant correlation.

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**Table 3. Selected Municipalities. Homicide Rate**

Municipality	Population	Homicides 2006	Homicide Rate 2006	Homicides 2013	Homicide Rate 2013	% Increase
Acapulco de Juárez	789 971	262	33.16	865	109.49	230%
Apaxtla	12 389	6	48.43	19	153.36	217%
Atenango del Río	8 390	1	11.91	3	35.75	200%
Atlixac	26 341	1	3.79	14	53.14	1300%
Atoyac de Alvarez	61 316	15	24.46	72	117.42	380%
Benito Juárez	15 019	1	6.65	3	19.97	200%
Copalillo	14 456	1	6.91	8	55.34	700%
Coyuca de Benitez	73 460	23	31.30	109	148.38	374%
Coyuca de Catalan	42 069	19	45.16	53	125.98	179%
Cuajinicuilapa	25 922	7	27.00	21	81.01	200%
Cuautepec	15 115	1	6.61	3	19.84	200%
Chilapa de Alvarez	120 790	6	4.96	16	13.24	167%
Chilpancingo de los Bravo	241 717	37	15.30	153	63.29	314%
Iguala de la Independencia	140 363	21	14.96	91	64.83	333%
Igualapa	10 815	1	9.24	5	46.23	400%
Zihuatanejo de Azueta	118211	33	27.97	74	62.59	124%
Taxco de Alarcón	104053	8	7.68	26	24.98	225%

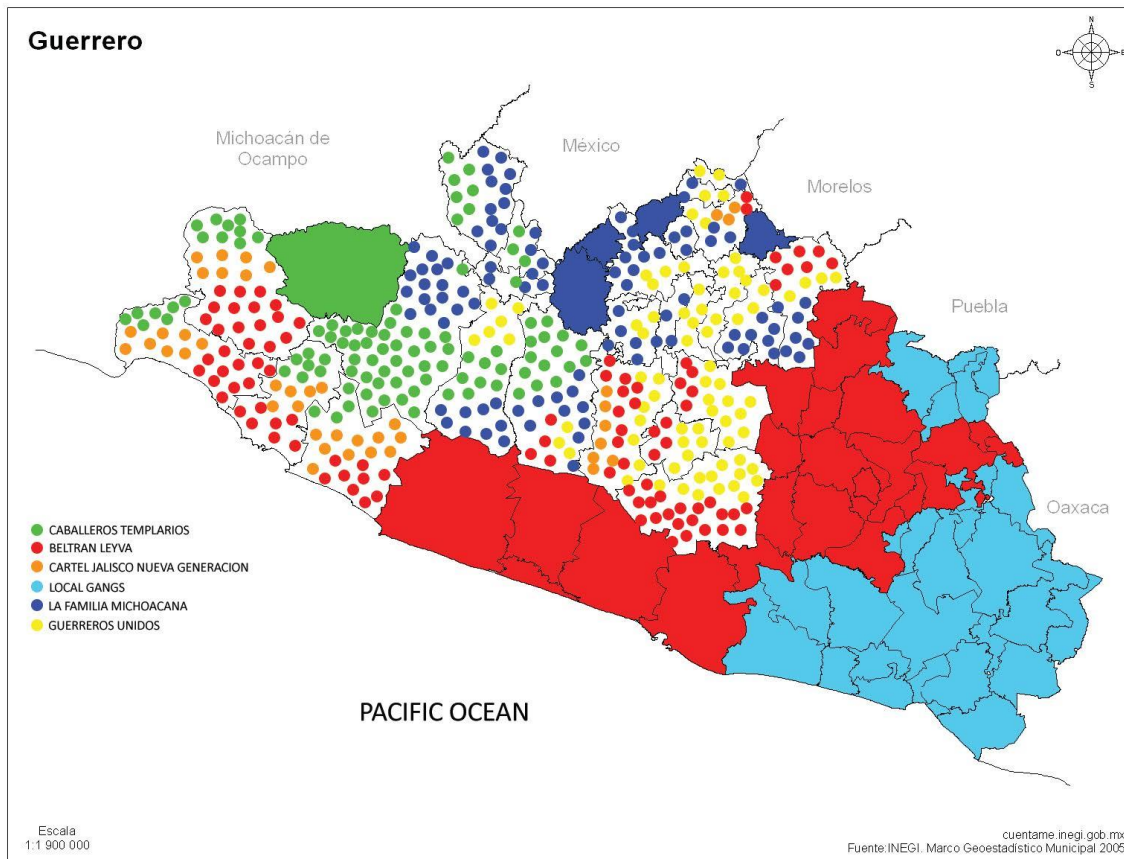
However, if we take a look at the 10 municipalities that have the highest percentage of increase in homicide rates from 2006 and 2013, the evidence is clearer. Removing two outliers Telolapan and Tixtla de Guerrero, which present average GNI (PPP) rates, all of the others are significantly low.

<sup>21</sup> The complete dataset can be contrasted in the Appendix 2.

If we repeat the analysis, the same happens with average years of education where 8 out of 10 municipalities do not surpass the 6 years average of education and where two of them correspond to the list of lowers rates with 2.42 (Xalpatlahuatl) and 2.59 (Atlixnac). In the case of children mortality rate while they are not among the highest (only and again Atlixnac with a very high rate of 29.39 percentage of children mortality) all of them are significantly enough in the highest sample, with the exception of Juan R. Escudero, with a not so high rate of 12.376. In the case of the Gini index for inequality, we can see that in general most municipalities have a significant high level for this indicator and that all of the 10 municipalities that were more affected by the reinforcement in terms of violence have also high levels being Tixtla and Teloloapan the two with the highest index of inequality. What can be inferred is that adverse socioeconomic conditions are variables that are present in the places that register worst levels of violence.

Now in order to test if the adverse socioeconomic conditions have a relation with rates of drug production, we analyze the data from the seizures and the economic indicators. The case of Zihuatanejo de Azuela, a touristic center with one of the largest GNI (PPP), where there has not been registered any drug seizure, has its particularities. While the data says that is not a center of production, three organizations fight for the control of the territory in this area. Zihuatanejo has a rate of 62.59 points in homicide rate, which put it in the group of 31 municipalities with more than 50 rate points. The case of Zihuatanejo can be explained for its strategic location as a touristic center, which as consequence makes it a market for the local distribution of narcotics. What this case may infer is that while there is a relation between number of DTOs that have presence in the municipality and the violence rate, there may not be a relation with the character of the municipality as a drug producer.

**Figure 3. Map Guerrero. DTOs presence by Municipality**



Following the idea of the relation between high levels of homicides rates and rivalry between DTOs, what can be seen from the data is that six of the ten most violent municipalities register the presence of 2, 3 or 4 drug trafficking organizations; only three that are controlled by a single one and one that is controlled by local gangs. For instance if we only take into account the municipalities that register the presence of local gangs the increase in violence is much lower. The 26 municipalities with no presence of big DTOs register “only” 80% in the increase of violence, going from a rate of 18.67 to 33.7, contrasting with the increase of 208% that the whole state registered from 2006 to 2013 (Table 4 and 5). What this relation suggests is that violence is higher



in those places that register not only rivalry of DTOs but also the presence of even one, but powerful organization (Figure 2).

**Table 4. Municipalities Controlled by Local Gangs and Homicide Rate**

Municipality	Homicide Rate 2006	Homicide Rate 2013	% Increase	DTOs	Seizures Total Area (hectares)
Juchitan	0	69.77	70%	Local Gangs	0
Illiaticenco	0	28.51	29%	Local Gangs	0
Marquelia	46.46	54.21	17%	Local Gangs	0
Cuautepec	6.61	19.84	200%	Local Gangs	0.83
Cuajinicuilapa	27.00	81.01	200%	Local Gangs	8.03
Azoyú	20.79	110.88	433%	Local Gangs	14.98
Cualac	0	42.81	4281%	Local Gangs	15.64
Copala	22.00	14.68	-33%	Local Gangs	18.87
Xochihuehuetlán	28.25	14.12	-50%	Local Gangs	25
San Luis Acatlán	14.16	16.52	17%	Local Gangs	29.39
Atlamajalcingo del Monte	0	17.52	1752%	Local Gangs	29.45
Huamuxtitlán	20.84	20.84	0%	Local Gangs	35.67
Xalpatláhuac	0	8.16	816%	Local Gangs	49.80
Iguala	9.24	46.23	400%	Local Gangs	52.36
Olinalá	20.22	4.04	-80%	Local Gangs	93.10
Cochoapa el Grande	0	31.95	32%	Local Gangs	105.87
Tlacoachistlahuaca	37.54	46.93	25%	Local Gangs	131.56
Alcozauca de Guerrero	21.08	5.27	-75%	Local Gangs	139.33
San Marcos	12.37	30.92	150%	Local Gangs	286.68
Malinaltepec	13.51	16.89	25%	Local Gangs	345.90
Florencio Villareal	24.78	39.65	60%	Local Gangs	420.08
Teconapa	9.074	24.95	175%	Local Gangs	551.60
Ometepec	27.72	70.13	153%	Local Gangs	785.75
Tlacoapa	20.06	10.03	-50%	Local Gangs	787.18
Metlatónoc	21.07	5.26	-75%	Local Gangs	1287.12
Ayutla de los Libres	27.11	23.92	-12%	Local Gangs	12767.44
Total	18.67	33.71	80.56%		17891.74

**Table 5. Municipalities with High Level of Rivalry and Homicide Rates**

Municipality	Homicide Rate 2006	Homicide Rate 2013	% Increase	DTOs	Seizures Total Area (hectares)
Ajuchitlán del Progreso	34.02	57.58	69%	3 (CT,FM, GU)	2474.09
Apaxtla	48.43	153.36	217%	2 (FM, GU)	91.51
Chilpancingo de los Bravo	15.30	63.29	314%	2 (BL, GU)	4434.83
Coahuayutla de José María Izazaga	69.09	145.87	111%	3 (CJNG, CT, BL)	189.52
Coyuca de Catalan	45.16	125.98	179%	2 (CT, FM)	1729.01
Cuetzala del Progreso	10.90	76.36	600%	2 (GU, FM)	21.32
Cutzamala de Pinzón	28.05	37.40	33%	2 (CT, FM)	52.37
Eduardo Neri	8.66	38.99	350%	2 (BL, GU)	401.89
Huitzo de los Figueroa	13.38	34.79	160%	3 (BL, GU, FM)	12.91
La Unión de Isidoro Montes de Oca	70.00	120.56	72%	3 (BL, CJNG, CT)	106.63
Leonardo Bravo	12.13	56.63	367%	2 (BL, GU)	3460.92
Pilcaya	8.65	51.91	500%	2 (FM, GU)	14.75
Pungarabato	48.60	140.40	189%	2 (CT, FM)	126.83
San Miguel Totolapan	17.85	153.52	760%	4 (BL, CT, FM, GU)	6733.77
Taxco de Alarcón	7.68	24.98	225%	4 (BL, CJNG,FM, GU)	33.88
Teloloapan	7.43	98.56	1225%	2 (FM, GU)	26.78
Tepecoacuilco de Trujano	22.97	36.10	57%	2 (FM, GU)	23.2
Tetipac	7.61	38.08	400%	2 (FM, GU)	6.074
Zihuatanejo de Azueta	27.91	62.59	124%	3 (BL, CJNG, CT)	0
Total	21.80	69.04	216.67%	21.8027097	627 19940.34

Finally we made an observation about the presence of self-defense groups and guerrillas along with the presence of DTOs. In this case the relation found is that in those cases where there is presence of three or four DTOs in rivalry for the same municipality, only in two cases, out of 25, there is presence of guerrillas (Petatlan and Ajuchitan de Progreso). This suggests that the guerrilla groups have kept away from the zones that the DTOs control (or viceversa). In fact, in 13 of these

25 cases, there is only registry of local gangs in the area. In the case of presence of self-defense groups we expected a significant correlation between the presence of these groups and the presence of DTOs in rivalry. However the data suggests the opposite. From the 47 municipalities where self-defense groups have presence, only in two of them there is registry of rivalry between four groups, the cases of Taxco and San Miguel Totopan, and other two with rivalry also between two groups, the cases of Cuetzala and Tepecoaculco. In the rest of the 43 where there is a registry of self-defense groups, the data shows that they are present in municipalities where one group controls the region or where there is only presence of local gangs. In relation with the 19 municipalities where there is the registry of both kind of aggrupation, guerrillas and self-defense groups, 13 of them surpass the 30 points on violence rate and only one register lower values than 10. Even when is not conclusive, with more in depth data this finding could suggests that the absence of state, reflected in the presence of these groups, is actually a factor that make the region more prone to the effects of violence (Appendix 2.3).

#### ***4.3 Analysis by Region***

In this subsection we will analyze the same variables but for each of the seven economic regions of the state<sup>22</sup> in order to find patterns in the data. This regions are: Acapulco, Costa Chica, Costa Grande, Centro, La Montana, Norte y Tierra Caliente.

*Acapulco.* This region corresponds to one single municipality because its socioeconomic conditions are very different from the rest of the state. The reason for this is that Acapulco has

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<sup>22</sup> These regions were established in 1988 by the Center for Municipal Studies that depends from the Ministry of the Interior.

been for decades one of the most important touristic centers of the country which has made the city much more developed than the others. According to the data, it seems that this is also the same reason for the increase of violence in the area. From 2006 to 2013, the rates of violence increased in 230%, going from a rate of 33.16 to 109.49, which made Acapulco the most violent municipality of the country. The reasons for this seem to be related to the fact that it is an area where there is local distribution of narcotics controlled basically by the Cartel Independiente de Acapulco, which depends on the Beltrán Leyva cartel.

*Costa Chica.* While in this area violence almost multiplied from 2006 to 2013, the rate, which is still high for normal values, is low (39.90) for the state compared with the other regions. It is one of the most important regions for drug cultivation where big DTOs do not have presence, and only register presence of local gangs. However, in this region, all the 15 municipalities register self-defense groups and only two do not register guerrilla groups (Copala and Cuajinicuilapa). Regarding the socioeconomic conditions it is one of the poorest of the state, only surpassed by La Montana and displays high levels of marginalization.

*Costa Grande.* Due to the fact that Zihuatanejo de Azueta is an outlier of the average, the socioeconomic indicators are the second best of the state. However, if we remove this municipality from the data, the region falls two places in the general rank. In terms of drug cultivation, this area is not significant, but in terms of methamphetamines production it is, mostly in Coahuayutla de José María Izazaga and La Unión de Isidoro Montes de Oca (in the border with Michoacán), where there have been seizures of more than 1,000 kilograms of this type of drugs. This region also registers a high rivalry between DTOs. In four out of the nine municipalities for instance, there is

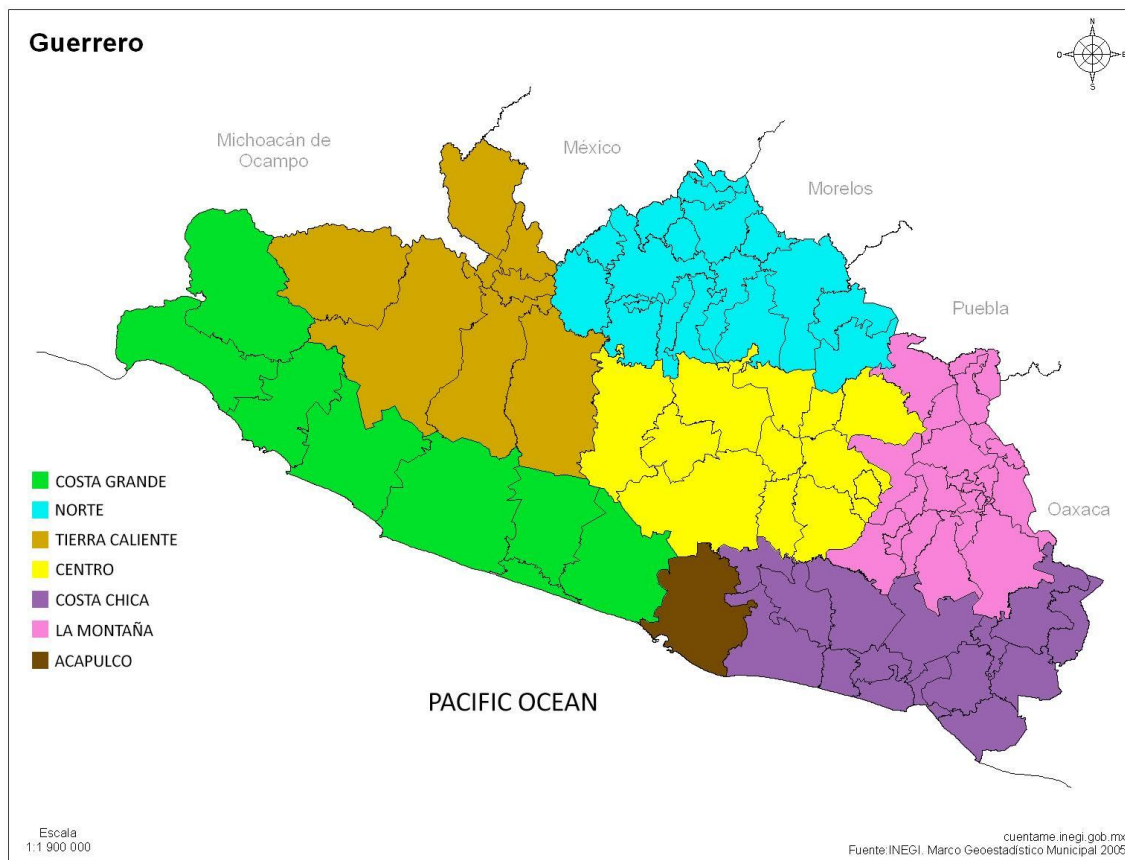
presence of three cartels: Beltran Leyva, Cartel Jalisco Nueva Generacion and Caballeros Templarios. The rest are controlled by the first. Violence is the second highest of the region which correlates once more with the rivalry fact.

**Table 6. Socioeconomic and Drug Trafficking Indicators by Region**

Region	Pop.	Homici de Rate 2006	Homici de Rate 2013	% Increas	Years of educ.	Income (dollars)	Children Mortality	Gini	Drug's seizures (hectares)
Acapulco de Juárez	789971	33.16	109.49	230.00	8.450	12032.6	10.970	0.444	1460.26
Costa Chica	428501	20.3	39.9	96.55	4.83	5459.14	19.1	0.481	15155.47
Costa Grande	413793	33.83	93.04	175.00	5.81	7074.68	14.21	0.456	5657.42
Centro	615333	12.83	41.6	224.00	4.69	5503.22	22.25	0.472	21644.28
La Montaña	280198	22.12	34.97	58.06	3.79	4172.73	23.67	0.453	11018.60
Norte	482383	13.064	56.8	334.92	5.45	6765.17	16.45	0.452	677.63
Tierra Caliente	251012	35.85	84.45	135.56	5.1	6863.74	15.45	0.463	17683.00

*La Montana.* Completely rural, with the exception of Tlapa de Comonfort, this region has the worst socioeconomic conditions of the state. Education has only an average of 3.79 and the children mortality rate is the highest with 23.67. In terms of income, it has the lowest, all with high levels of marginalization and inequality. In reference to violence rate this region presents the lower significant change with a 58% of increase between 2006 and 2013 going from a rate of 22.12 to 34.97. Opium is cultivated in this region where only Beltran Leyva cartel and local gangs have presence. While Guerrilla, EPR and ERPI, have presence in four and two respectively, out of 20, there is registry of the conformation of self-defense groups in all but four of them.

**Figure 4. Map of Guerrero by Region**



*Norte*. This is the region where violence had more effects since 2006. With an increase of 335% going from a rate of 13.06 to 56.80, this region presents high rivalry between DTOs. Taxco de Alarcon, a touristic city and very important producer of silver, registers the presence of four cartels: Beltran Leyva, Cartel Jalisco Nueva Generacion, Familia Michoacana and Guerreros Unidos. In Huizco de los Figueroa, the presence of three DTOs can also be traced, and in the rest there is rivalry between Familia Michoacana and Guerreros Unidos. Fewer cases are controlled by one single organization, in this case mostly Beltran Leyva or Guerreros Unidos and Familia Michoacana in other four. While the cultivation of drugs is practically insignificant 12 out of 16

of the municipalities register seizures of some kind of drugs, mostly marihuana. This could be due to the fact that the region is on the borders with the states of Mexico, Morelos and Puebla and is a natural route of distribution. Self-defense groups have presence in only six municipalities where there is some competition between cartels. In the case of guerrillas, the region does not have registry of presence of any of them. Mostly rural, with the exception of two municipalities, this region also has very low levels of socioeconomic indicators. Years of education do not reach the six years and the income is also very low. Although the inequality is very high, in comparison with other regions this is one has the lowest.

In the case of Iguala de la Independencia, the municipality where the killing of the 43 students occurred in September 2014, the data indicates that is a region where there is no significant production of drugs but that is completely controlled by the gang Guerreros Unidos. In relation with the socioeconomic indicators, these indicate that the levels of education, health services and income are much better than the rest of the state but that there is a high level of inequality (.446) and marginalization.

*Tierra Caliente.* The complete territory of this region also covers portions of Michoacan and Mexico state. This area registers an important production of drugs, mainly opium. However, the data also suggests that is also a center not only for cultivation but also for the production of narcotics. In Coyuca for instance 3,640 liters of heroine were confiscated in 2012. This may explain why is a very competitive area between DTOs. There is registry for the presence of four drug trafficking organizations: Beltran Leyva, Caballeros Templarios, Familia Michoacana, Guerreros Unidos (controlled by Familia Michoacana). In San Miguel Totolapan, the four of them

have presence; in Ajuchitan del Progreso all but Beltran Leyva (although with the presence of Guerreros Unidos it can be said that they have some kind of presence); in Coyuca de Catalan, Cutzama, Pungarabato and, Tlapehuala there is presence of the Familia Michoacana and the cartel that was formed with former members, Caballeros Templarios, both of them, mostly dedicated to production of methamphetamines.

Regarding the impact of violence during the past years, this increased in 136% from 2006 to 2013, when it went from rates to 35.85 to 84.45. Even though 136% is not as dramatic as other cases, it presented, even back in 2006, one of the highest rates compared to the whole country and even the state. In this region there is practically no presence of self-defense groups, with the exception of San Miguel Totolapan, which contrast with the region of Tierra Caliente in Michoacan where actually the self-defense groups emerged at the beginning of 2013. In the case of the socioeconomic indicators, as all the other regions the average income and the years of education are low; although it presents a better rate of children mortality.

#### ***4.4 Discussion***

Even though the data has some limitations in terms of number of cases, the analysis based in individual observation and regional mapping suggests some relevant findings, although constrained to the particular case of Guerrero. In the case of H1a, adverse socioeconomic conditions are related with higher levels of violence, it can be said that there is not enough evidence to support the assumption. The generalized situation of poverty and inequality and also violence in most of the municipalities make it very difficult to find any relevant pattern. However, while the socioeconomic indicators of education, income and Gini Index did not suggest evident relations



with the levels of violence, the child mortality rate did. This can be considered an important finding due to the fact that the indicator of children mortality rate implies circumstances where there is lack of health services or proper attention to women during pregnancy that can be related with other factors such as, lack of available information.

This leads to the discussion of the second and third hypothesis H1b: adverse socioeconomic conditions have a significant relation with rates of drug production; and H1c, drug production has a significant relation with levels of violence. According to the data and mainly the regional analysis, it can be said that there is some evidence that supports H1b. The four main centers of production: Tierra Caliente, Costa Chica, Centro, and Montaña, are also the regions with the worst socioeconomic conditions. Even though the evidence is not strong enough to conclude that there is a causal relationship, it can be said that there is some correlation between variables. In the case of the H1c, according to the evidence, the three biggest producer regions are also the ones with lower rates of violence. In the case of Acapulco and Costa Grande, the two regions with the highest levels of violence, the rates of production are on the opposite side, the lowest. This evidence suggests that the levels of drug production have some relation with the levels of violence but in a negative way. It seems that those areas where there is bigger production are also the less competitive and violent.

In the case of the Norte region, the one with higher percentage of increase in levels of violence from 2006 to 2013, while there is no significant cultivation of drugs in this area, it can be inferred that levels of violence respond to the fact that it is in the border with other states and is a route of distribution where in consequence there is competition between DTOs that causes violence. The

other possibility is that violence can be more related with the production of drugs (methamphetamines and heroin) more than with the cultivation. However, more data would be needed in order to make this assumption. What can be said is that almost in all cases, the proximity with Michoacan makes the municipality or region more prone to violence.

However, in the case of the second hypothesis H2 related to the assumption that the policy enforcement had more negative effects in terms of violence in those municipalities that had more adverse conditions, the qualitative observation of the data suggest that there is some relation. In this case it can be said that between 2006 and 2013, homicide rate increased more in poorest areas. The finding is important because relates with the theoretical framework proposition that suggest that drug trafficking should be considered not –or not only- as a problem of public safety but as a problem of development. In the case of the interpretative observation case by case, and per indicators, one of the main findings of the data analysis is the fact that while socioeconomic conditions do not have a clear causal relation with the increase of violence, there is some evidence that suggests that the reinforcement policies and further militarization of some regions, had higher negative effects in terms of violence in places with low socioeconomic conditions. Taking into consideration the two levels of analysis, we can suggest that there is some relation between adverse socioeconomic conditions and the increase of rates of drug violence. In a nutshell, while there is some relation between low socioeconomic conditions and rates of violence, it is not enough for considering a causal relation.

As a conclusion, violence can be explained in multifactorial levels depending on the characteristics of the regions. Rivalry between cartels has showed to be a factor that triggers violence, however

there are multiple particularities for that region to be prone to more competition. For instance, in the case of Norte region, it is related to the fact that is a route of distribution outside the state. In the case of Tierra Caliente it is related to circumstance that the region is in the border with one the most violent area of Michoacan and the fact that it cultivates not only opium and cannabis but also is an important center for the production of methamphetamines. In this case, the evidence suggests that competition between cartels seem to be related to the production (not cultivation) but also with its geographical localization.

The limitations of the data do not allow to analyze for instance the development of this competition during the last years, which makes impossible to make assumptions about how this rivalry has moved from region to region. However what could be added is that adverse socioeconomic conditions have an important significance in the identification of the areas where drugs are cultivated. The three regions with general better socioeconomic conditions are also the three that have significantly lower levels of drug production. Summarizing, while violence is related to polarization in the competition between cartels in a determined region, the polarization of specific regions occurs for different reasons that can be related to their geographical localization. In addition, even when socioeconomic conditions suggest a relation with violence, socioeconomic conditions did show a more significant relation with the fact that drugs are produced in greater numbers in some places than in others. In the case of the effects of the reinforcement and militarization we would also need a more extensive time series data analysis in order to identify for instance the changes in the composition of territorial control by the DTOs.

## CONCLUSIONS

What this thesis has intended to do is to contextualize drug trafficking not as a problem of criminality and therefore of security –whose most evident negative outcome is violence- but to contribute to the debate on its structural causes. This research has argued that the problem of drug trafficking has to be approached from different perspectives that start explaining the conditions that in the first place led specific countries, states and regions to this activity. The theoretical proposition that supported the analysis placed levels of poverty, inequality and lack of development as relevant circumstances that open opportunities for this type of market to exist. The ultimate intention is also to gain the attention of policy makers to help them develop alternative strategies than those that historically have been implemented and that have had more negative than positive outcomes.

The findings of this thesis, while not conclusive since it only focuses on one state, throw up some important conclusions. In the first place it found a very strong causal relation with levels of violence and the presence of two or more DTOs in the analyzed areas. Those municipalities that are controlled by local gangs present in general lower levels of violence which contrast with the higher levels of violence in those places where there is presence of bigger organizations. The second finding has to do with the relationship between the levels of violence and amounts of drug production, the evidence also seems to point out that there is, but it is a negative one. In general the places that are dedicated to the cultivation of drugs are the ones with lower rates of violence. This remark is also related to the finding that suggests that socioeconomic conditions could be related with the areas where drugs are produced.

These conclusions bring other questions that can lead to further research. For instance, since violence is measured in homicide rates, in the case of the areas that are controlled by small gangs where violence is lower, the indicators could be contrasted with rates in other types of crimes, such as kidnaping, extortion or burglary. The rates of violence in terms of homicides could be lower, since these groups do not have the same gun capacity of bigger DTOs, but this does not mean that the regions are safer. In the second case, taking into account that data is consistent with the argument that violence is lower in those places where drugs are produced, further questions for the research could be more focused on the study of the labor division in the DTOs structures, where the producers are not *per se* members of the criminal organizations. Further research could also include a bigger sample in order to be able to establish wider conclusions. In this case, the application of statistical methods could support the propositions and bring more evidence to the discussion. At the same time, field research and qualitative interviewing analysis could complement the outline of the research.

In the case of the effects of the reinforcement of the policies, while the analysis could not find strong evidence that supports the proposition that violence is more prone to occur in those places that have lower socioeconomic conditions, it found evidence that supports the fact that the reinforcement policies had a higher negative impact, in terms of violence, in those places that have lower socioeconomic conditions. The result is relevant because it brings to the discussion the effects of militarization not only in general terms but it opens the debate in terms of which sector of the population suffers the most with these kind of governmental responses.

As a final remark, the results and suggestions for further research presented in this thesis, have the intention to contribute to the debate that opens new approaches for the understanding of a problem that everyday takes the lives of dozens of people. The main purpose is to suggest evidence that supports alternative ways to fight illegal activities such as drug trafficking. By conceptualizing and implying data that support this idea, policy makers could start proposing new approaches that do not fight illegality with reinforcement but with policies that focus on its structural causes.

## APPENDICES

### *Appendix 1. Mexican DTOs, Gangs and Territory Distribution*

Cartel	No.	Gangs	State or regions
Pacífico	1	Gente Nueva	Chihuahua and Sinaloa
	2	Los Cabrera	Durango and Chihuahua
	3	La Barredora	Guerrero
	4	Poniente or Laguna	Durango and Coahuila
	5	El Aquiles	Baja California
	6	El Tigre	Baja California
	7	Los Artistas Asesinos	Chihuahua
	8	Los Mexicles	Chihuahua
Arellano Felix (Tijuana cartel)	9	El Chan	Baja California
	10	El Jorquera	Baja California
	11	El Kieto	Baja California
La Familia Michoacana	12	Guerreros Unidos	Morelos, Guerrero and Mexico State
	13	La Empresa	Mexico State and Morelos
Carrillo Fuentes	14	La Linea	Chihuahua
	15	Los Aztecas	Chihuahua
Beltran Leyva	16	Los Mazatlecos	Sinaloa and Baja California Sur
	17	El 2 mil	Sonora
	18	Los Granados	Guerrero/Tierra Caliente
	19	Los Rojos	Guerrero/North and Center and Morelos
	20	La Oficina	Aguascalientes and Baja California Sur
	21	Los Ardillos	Guerrero/Mountains and Center
	22	Cartel Independiente de Acapulco (CIDA)	Guerrero
Los Zetas	23	Sangre Zeta	Coahuila and Nuevo Leon
	24	Grupo Operativo Zetas	Tamaulipas (El Mante, Soto la Matina and Victoria)
	25	Comando Zetas	Tamaulipas (Reynosa, Matamoros, Nuevo Laredo, Miguel Aleman, Gustavo Dias Ordaz and Ciudad Mier)
	26	El Circulo and El Extranjero	Tamaulipas (Jimenez, Victoria, Ciudad Madero and Abasolo)
	27	Unidad Zetas	Tamaulipas (Nuevo Laredo)
	28	Nectar Lima	Tamaulipas (Nuevo Laredo)
	29	Grupo Delta Zeta	Tamaulipas (Valle Hermoso)
	30	Los Negros	Guanajuato (Irapuato)
	31	Fuerzas Especiales Zetas	Tabasco (Cardenas, Huimanguillo, Teapa and Center); Quintana Roo and Tamaulipas
Golfo	32	Metros	Tamaulipas (Reynosa)
	33	Rojos	Tamaulipas (Matamoros)
	34	Grupo Lacoste	Tamaulipas
	35	Grupo Dragones	Tamaulipas (Tampico)
	36	Grupo Bravo	Tamaulipas (Aldama)
	37	Grupo Pumas	Tamaulipas (El Mante)
	38	Grupo de Apoyo Ceros, M3	Tamaulipas (Reynosa)
	39	Los Fresitas	Tamaulipas

	40	Los Sierra	Tamaulipas
	41	Los Pantera	Tamaulipas
	42	Ciclones	Tamaulipas
	43	Los Pelones	Quintana Roo
Caballeros Templarios	44	No identified gangs	Michoacan, Guerrero, Guanajuato, Morelos, Mexico State, Jalisco, Colima, Queretaro, Baja California
Jalisco Nueva Generacion	45	No identified gangs	Jalisco, Colima, Michoacan, Guanajuato, Nayarit, Guerrero, Morelos, Veracruz and Mexico City

Source. National Attorneys Office. Public Information Request 2015.



## Appendix 2. Dataset

### 2.1 Socioeconomic Indicators

Municipality	Population	Urban / rural	Average years of educ	Income (dollars)	Children mortality rate	Gini	Marginalization
Acapulco de Juárez	789971	1	8.45	12032.6	10.98	0.444	Low
Ahuacuotzingo	25027	0	2.69	3356.6	24.67	0.437	High
Ajuchitlán del Progreso	38203	0	4.39	5221.4	15.60	0.482	High
Alcozauca de Guerrero	18971	0	2.20	3270.4	20.00	0.462	High
Alpoyeca	6637	0	5.08	5465.9	18.34	0.453	High
Apaxtla	12389	0	5.43	6837.5	14.56	0.526	Without
Arcelia	32181	0	6.41	8974.6	13.14	0.501	High
Atenango del Río	8390	0	4.62	5118.2	25.60	0.507	High
Atlamajalcingo del Monte	5706	0	3.86	3677.9	20.84	0.466	High
Atlixac	26341	0	2.59	3085.5	29.39	0.423	High
Atoyac de Alvarez	61316	1	6.42	7442.2	16.21	0.491	Without
Ayutla de los Libres	62690	1	4.33	4425.0	25.63	0.496	High
Azoyú	14429	0	5.09	5794.7	14.47	0.456	High
Benito Juárez	15019	0	6.92	8114.0	12.06	0.472	Without
Buenavista de Cuellar	12688	0	6.47	8295.9	10.63	0.430	Polarized
Coahuayutla de José María Izazaga	13025	0	3.44	3549.2	19.14	0.414	High
Cocula	14707	0	5.76	7085.4	12.76	0.507	High
Copala	13636	0	5.59	6107.3	17.01	0.463	High
Copalillo	14456	0	2.74	4043.9	20.69	0.432	High
Copanatoyac	18855	0	2.63	3631.1	25.27	0.451	High
Coyuca de Benitez	73460	1	5.74	6198.5	13.43	0.457	High
Coyuca de Catalan	42069	0	4.38	5905.3	14.80	0.469	High
Cuajinicuilapa	25922	0	4.82	6058.3	13.75	0.471	High
Cualac	7007	0	4.29	3983.0	14.25	0.428	High
Cuautepec	15115	0	4.67	4610.6	18.77	0.463	High
Cuetzala del Progreso	9166	0	4.33	5058.7	25.88	0.396	High
Cutzamala de Pinzón	21388	0	3.76	6856.1	13.62	0.445	High

Chilapa de Alvarez	120790	1	4.16	5201.7	28.49	0.502	High
Chilpancingo de los Bravo	241717	1	9.56	12505.	12.30	0.473	High
Florencio Villareal	20175	0	5.81	6852.50	13.090	0.486	High
General Canuto A. Neri	6301	0	4.49	4025.36	15.00	0.380	High
General Heliodoro Castillo	36586	0	4.07	4044.67	22.84	0.424	High
Huamuxtitlán	14393	0	5.16	7161.04	14.91	0.526	Without
Huitzco de los Figueroa	37364	0	6.07	7631.69	16.79	0.479	High
Iguala de la Independencia	140363	1	8.71	13378.87	11.77	0.446	High
Igualapa	10815	0	4.85	5104.80	22.04	0.464	High
Ixcateopan de Cuauhtémoc	6603	0	6.04	5878.33	17.87	0.454	Without
Zihuatanejo de Azueta	118211	1	7.61	10443.67	11.04	0.408	Without
Juan R. Escudero	24364	0	5.67	6293.72	12.37	0.476	High
Leonardo Bravo	24720	0	4.71	4474.82	16.82	0.463	High
Malinaltepec	29599	0	5.07	4273.88	27.61	0.492	High
Martir de Cuilapan	17702	0	3.41	4278.78	28.25	0.498	High
Metlatónoc	18976	0	1.86	2804.89	31.12	0.430	High
Mochitlán	11376	0	5.55	6697.47	15.50	0.526	High
Olinalá	24723	0	4.29	5357.47	19.20	0.451	High
Ometepec	61306	1	5.72	7220.00	19.22	0.526	High
Pedro Ascencio Alquisiras	6978	0	3.52	4486.25	19.97	0.398	High
Petatlan	44979	0	5.85	8122.12	13.76	0.483	Without
Pilcaya	11558	0	5.81	6965.97	12.18	0.458	Without
Pungarabato	37035	0	7.33	9951.58	10.82	0.416	Without
Quechultenango	34728	0	4.13	4444.84	26.31	0.479	High
San Luis Acatlán	42360	0	4.74	4800.25	25.94	0.503	High
San Marcos	48501	0	5.18	6100.00	16.12	0.492	High
San Miguel Totolapan	28009	0	4.24	4539.95	23.91	0.448	High
Taxco de Alarcón	104053	1	7.09	9397.65	11.41	0.437	Without
Teconapa	44079	0	5.87	4849.40	23.75	0.473	High
Técpán de Galeana	62071	1	5.96	7584.42	15.18	0.469	High

Teloloapan	53769	1	5.91	7134.14	17.05	0.499	Without
Tepecoacuilco de Trujano	30470	0	5.58	7492.19	13.74	0.489	High
Tetipac	13128	0	4.60	5412.48	17.35	0.408	High
Tixtla de Guerrero	40058	0	7.07	7987.72	16.39	0.541	Without
Tlacoachistlahuaca	21306	0	2.44	3582.06	20.85	0.507	High
Tlacoapa	9967	0	4.67	4153.74	27.72	0.479	High
Tlalchapa	11495	0	5.61	7730.09	16.91	0.479	High
Tlalixtaquilla de Maldonado	7096	0	4.06	2900.10	25.88	0.379	High
Tlapa de Comonfort	81419	1	5.92	6717.09	16.41	0.546	High
Tlapehuala	21819	0	6.43	8471.01	14.97	0.479	High
La Unión de Isidoro Montes de Oca	25712	0	4.57	5143.08	12.85	0.454	High
Xalpatláhuac	12240	0	2.42	4217.25	21.75	0.413	High
Xochihuehuetlán	7079	0	3.36	5137.77	21.51	0.426	High
Xochistlahuaca	28089	0	2.60	3653.05	21.19	0.487	High
Zapotitlán Tablas	10516	0	4.07	3435.73	20.64	0.462	High
Zirándaro	18813	0	3.37	4123.50	15.27	0.456	High
Zitlala	22587	0	3.22	4000.13	27.81	0.445	High
Eduardo Neri	46158	0	6.52	8075.09	17.49	0.458	High
Acatepec	32792	0	3.78	3037.69	30.64	0.418	High
Marquelia	12912	0	6.47	6863.07	20.52	0.462	High
Cochoapa el Grande	18778	0	1.14	2416.61	42.87	0.425	High
Jose Joaquin de Herrera	15678	0	2.08	2752.30	35.26	0.402	High
Juchitan	7166	0	4.31	5865.79	14.14	0.470	High
Illiatenco	10522	0	5.54	4554.56	21.31	0.495	High

## 2. 2 Violence Indicators

Municipality	Homicides 2006	Homicide Rate 2006	Homicides 2013	Homicide Rate 2013	% Increase
Acapulco de Juárez	262	33.16	865	109.49	230%
Ahuacuotzingo	5	19.97	9	35.97	80%
Ajuchitlán del Progreso	13	3402	22	57.58	69%
Alcozauca de Guerrero	4	2108	1	5.27	-75%
Alpoyeca	3	45020	2	30.13	-33%
Apaxtla	6	48043	19	153.36	217%
Arcelia	8	24.85	16	49.718	100%
Atenango del Río	1	11.91	3	35.75	200%
Atlamajalcingo del Monte	0	0	1	17.52	1752%
Atlixac	1	3.79	14	53.14	1300%
Atoyac de Alvarez	15	24.46	72	117.42	380%
Ayutla de los Libres	17	27.11	15	23.92	-12%
Azoyú	3	20.79	16	110.88	433%
Benito Juárez	1	6.65	3	19.97	200%
Buenavista de Cuellar	1	7.88	1	7.88	0%
Coahuayutla de José María Izazaga	9	69.09	19	145.87	111%
Cocula	0	0	12	81.59	82%
Copala	3	22	2	14.68	-33%
Copalillo	1	6.91	8	55.34	700%
Copanatoyac	5	26.51	7	37.12	40%
Coyuca de Benitez	23	31.3	109	148.38	374%
Coyuca de Catalan	19	45.16	53	125.98	179%
Cuajinicuilapa	7	27	21	81.01	200%
Cualac	0	0	3	42.81	4281%
Cuautepec	1	6.61	3	19.84	200%
Cuetzala del Progreso	1	10.9	7	76.36	600%
Cutzamala de Pinzón	6	28.05	8	37.40	33%
Chilapa de Alvarez	6	4.96	16	13.246	167%

Chilpancingo de los Bravo	37	15.3	153	63.29	314%
Florencio Villareal	5	24.78	8	39.65	60%
General Canuto A. Neri	2	31.74	3	47.61	50%
General Heliodoro Castillo	13	35.53	14	38.26	8%
Huamuxtitlán	3	20.84	3	20.84	0%
Huitzco de los Figueroa	5	13.38	13	34.79	160%
Iguala de la Independencia	21	14.96	91	64.83	333%
Igualapa	1	9.24	5	46.23	400%
Ixcateopan de Cuauhtémoc	1	15.14	12	181.73	1100%
Zihuatanejo de Azueta	33	27.91	74	62.59	124%
Juan R. Escudero	0	0	17	69.77	6977%
Leonardo Bravo	3	12.13	14	56.63	367%
Malinaltepec	4	13.51	5	16.89	25%
Martir de Cuilapan	0	0	1	5.64	564%
Metlatónoc	4	21.07	1	5.26	-75%
Mochitlán	3	26.37	4	35.16	33%
Olinalá	5	20.22	1	4.04	-80%
Ometepec	17	27.72	43	70.13	153%
Pedro Ascencio Alquisiras	3	42.99	4	57.32	33%
Petatlan	14	31.12	23	51.13	5%
Pilcaya	1	8.65	6	51.91	500%
Pungarabato	18	48.6	52	140.40	189%
Quechultenango	9	25.91	6	17.27	-33%
San Luis Acatlán	6	14.16	7	16.52	17%
San Marcos	6	12.37	15	30.92	150%
San Miguel Totolapan	5	17.85	43	153.52	760%
Taxco de Alarcón	8	7.68	26	24.98	225%
Teconapa	4	9.07461603	11	24.95	175%
Técpán de Galeana	27	43.49	54	86.99	100%
Teloloapan	4	7.43	53	98.56	1225%

Tepecoacuilco de Trujano	7	22.97	11	36.10	57%
Tetipac	1	7.61	5	38.08	400%
Tixtla de Guerrero	1	2.49	15	37.44	1400%
Tlacoachistlahuaca	8	37.58	10	46.93	25%
Tlacoapa	2	20.06	1	10.03	-50%
Tlalchapa	5	43.49	3	26.09	-40%
Tlalixtaquilla de Maldonado	1	14.09	2	28.18	100%
Tlapa de Comonfort	20	24.56	30	36.84	50%
Tlapehuala	6	27.49	9	41.24	50%
La Unión de Isidoro Montes de Oca	18	70	31	120.56	72%
Xalpatláhuac	0	0	1	8.16	816%
Xochihuehuetlán	2	28.25	1	14.12	-50%
Xochistlahuaca	3	10.68	3	10.68	0%
Zapotitlán Tablas	2	19.01	8	76.07	300%
Zirándaro	10	53.15	6	31.89	-40%
Zitlala	2	8.85	4	17.70	100%
Eduardo Neri	4	8.66	18	38.99	350%
Acatepec	6	18.26	8	24.39	350%
Marquelia	6	46.46	7	54.21	17%
Cochoapa el Grande	0	0	6	31.95	32%
Jose Joaquin de Herrera	0	0	3	19.13	19%
Juchitan	0	0	5	69.77	70%
Illiatenco	0	0	3	28.51	29%

## 2.3 Drug Trafficking and Presence of Civilian Armed Groups

Municipality	DTOs	Cannabis Seizures (Hectares)	Opium Seizures (Hectares)	Total Seizure Area (Hectares)	Self Defense Groups	Guerrillas
Acapulco de Juárez	1 (BL)	12.236	134.028	146.264	Yes	Yes (EPR)
Ahuacuotzingo	1 (BL)	44.0755	246.292	290.3675	No	No
Ajuchitlán del Progreso	3 (CT,FM, GU)	107.5385	2366.5551	2474.0936	No	Yes (ERPI)
Alcozauca de Guerrero	Local Gangs	0.165	139.171	139.336	Yes	No
Alpoyeca	1 (BL)	0	0	0	No	No
Apaxtla	2 (FM, GU)	41.1845	50.3325	91.517	No	No
Arcelia	1 (FM)	15.0905	103.712	118.8025	No	No
Atenango del Río	1 (BL)	2.9413	2.497	5.4383	No	No
Atlamajalcingo del Monte	Local Gangs	0.46	28.9985	29.4585	Yes	No
Atlixac	1 (BL)	50.316	2843.9322	2894.2482	Yes	No
Atoyac de Alvarez	1 (BL)	47.8714	1355.0735	1402.9449	Yes	Yes (EPR, ERPI)
Ayutla de los Libres	Local Gangs	3094.5434	9672.9031	12767.4465	Yes	Yes (EPR, ERPI)
Azoyú	Local Gangs	0.29	14.698	14.988	Yes	Yes (EPR, ERPI)
Benito Juárez	1 (BL)	0	0	0	Yes	Yes (EPR)
Buenavista de Cuellar	1 (FM)	1.03	1.465	2.495	No	No
Coahuayutla de José María Izazaga	3 (CJNG, CT, BL)	0.495	189.0317	189.5267	No	No
Cocula	1 (GU)	1.26	5.476	6.736	No	No
Copala	Local Gangs	14.805	4.069	18.874	Yes	No
Copalillo	1 (BL)	5.437	9.91	15.347	No	No
Copanatoyac	1 (BL)	13.004	551.8632	564.8672	Yes	No
Coyuca de Benitez	1 (BL)	73.899	126.1505	200.0495	Yes	Yes (EPR, ERPI)
Coyuca de Catalan	2 (CT, FM)	1.57	1727.4453	1729.0153	No	Yes (ERPI)
Cuajinicuilapa	Local Gangs	0	8.035	8.035	Yes	No
Cualac	Local Gangs	0.38	15.265	15.645	Yes	No
Cuautepec	Local Gangs	0.08	0.75	0.83	Yes	Yes (FAR-LP)

Cuetzala del Progreso	2 (GU,FM)	13.1825	8.14	21.3225	Yes	No
Cutzamala de Pinzón	2 (CT, FM)	26.19	26.1825	52.3725	No	No
Chilapa de Alvarez	1 (B)L	6.8025	397.1918	403.9943	No	No
Chilpancingo de los Bravo	2 (BL,GU)	108.051	4326.785	4434.836	No	No
Florencio Villareal	Local Gangs	417.0565	3.03	420.0865	Yes	Yes (FAR-LP)
General Canuto A. Neri	1 (FM)	2.42	155.328	157.748	No	No
General Heliodoro Castillo	3 (BL,CJN G, GU)	0.92	11796.289	11797.2086	No	No
Huamuxtitlán	Local Gangs	0	35.67	35.67	No	Yes (EPR)
Huitzco de los Figueroa	3 (BL,GU, FM)	0	12.91	12.91	No	No
Iguala de la Independencia	1 (GU)	0.64	39.8257	40.4657	Yes	No
Igualapa	Local Gangs	52.3645	0	52.3645	Yes	Yes (EPR, ERPI)
Ixcateopan de Cuauhtémoc	1 (FM)	3.38	12.915	16.295	No	No
Zihuatanejo de Azueta	3 (BL,CJN C, CT)	0	0	0	No	No
Juan R. Escudero	1 (BL)	55.527	0.525	56.052	Yes	No
Leonardo Bravo	2 (BL,GU)	42.227	3418.7023	3460.9293	No	No
Malinaltepec	Local Gangs	16.514	345.9095	345.9095	No	No
Martir de Cuilapan	1 (BL)	0	0	0	No	No
Metlatónoc	Local Gangs	1.18	1285.9421	1287.1221	Yes	No
Mochitlán	1 (BL)	24.0635	127.605	151.6685	No	No
Olinalá	Local Gangs	27.205	65.9	93.105	Yes	Yes (EPR, ERPI)
Ometepec	Local Gangs	0.1505	785.6088	785.7593	Yes	Yes (EPR, ERPI)
Pedro Ascencio Alquisiras	1 (FM)	201.573	1.1	202.673	Yes	No
Petatlan	3 (BL,CJN G, CT)	0.33	679.718	680.048	No	Yes (EPR)
Pilcaya	2 (FM,GU)	5.13	9.62	14.75	No	No



Pungarabato	2 (CT, FM)	113.4801	13.35	126.8301	No	No
Quechultenango	1 (BL)	0.6	456.7391	457.3391	No	No
San Luis Acatlán	Local Gangs	1.64	27.751	29.391	Yes	Yes (EPR, ERPI)
San Marcos	Local Gangs	255.2263	31.459	286.6853	Yes	Yes (EPR, ERPI)
San Miguel Totolapan	4 (BL,CT, FM,GU)	4.15	6729.6271	6733.7771	Yes	No
Taxco de Alarcón	4 (BL,CJN G, FM,GU)	2.005	31.8755	33.8805	Yes	No
Teconapa	Local Gangs	537.2983	14.31	551.6083	Yes	Yes (EPR, ERPI)
Técpán de Galeana	1 (BL)	8.503	3069.7255	3078.2285	Yes	Yes (EPR)
Teloloapan	2 (FM,GU)	1.27	25.515	26.785	Yes	No
Tepecoacuilco de Trujano	2 (FM,GU)	0	23.2	23.2	Yes	No
Tetipac	2 (FM,GU)	0.24	5.834	6.074	No	No
Tixtla de Guerrero	1 (BL)	3.1385	11.28	14.4185	Yes	No
Tlacoachistlahuaca	Local Gangs	9.975	121.587	131.562	Yes	Yes (EPR, ERPI)
Tlacoapa	Local Gangs	0.12	787.0685	787.1885	No	No
Tlalchapa	2 (FM, CT)	0	9.45	9.45	No	No
Tlalixtaquilla de Maldonado	1 (BL)	1.905	4.315	6.22	No	No
Tlapa de Comonfort	1 (BL)	0.22	65.161	65.381	Yes	Yes (EPR, ERPI)
Tlapehuala	1 (BL)	0	0.03	0.03	No	No
La Unión de Isidoro Montes de Oca	3 (BL,CJN G, CT)	3.46	103.1704	106.6304	No	No
Xalpatláhuac	Local Gangs	47.831	1.97	49.801	Yes	No
Xochihuehuetlán	Local Gangs	22.91	2.09	25	Yes	No
Xochistlahuaca	Local Gangs	77.4225	10.42	87.8425	Yes	Yes (EPR, ERPI)
Zapotitlán Tablas	1 (BL)	16.0775	2245.681	2261.7585	Yes	No
Zirándaro	1 (CT)	5708.7053	729.9303	6438.6356	No	No
Zitlala	1 (BL)	0	106.164	106.164	No	No
Eduardo Neri	2 (BL,GU)	9.9525	391.94	401.8925	No	No
Acatepec	1 (BL)	14.001	2298.0141	2312.0151	Yes	Yes (EPR)

Marquelia	Local Gangs	0	0	0	Yes	Yes (EPR, ERPI)
Cochoapa el Grande	Local Gangs	1.44	104.435	105.875	Yes	No
Jose Joaquin de Herrera	1 (BL)	26.237	445.068	471.305	No	No
Juchitan	Local Gangs	0	0	0	Yes	Yes (EPR, ERPI)
Illiatenco	Local Gangs	0	0	0	Yes	No

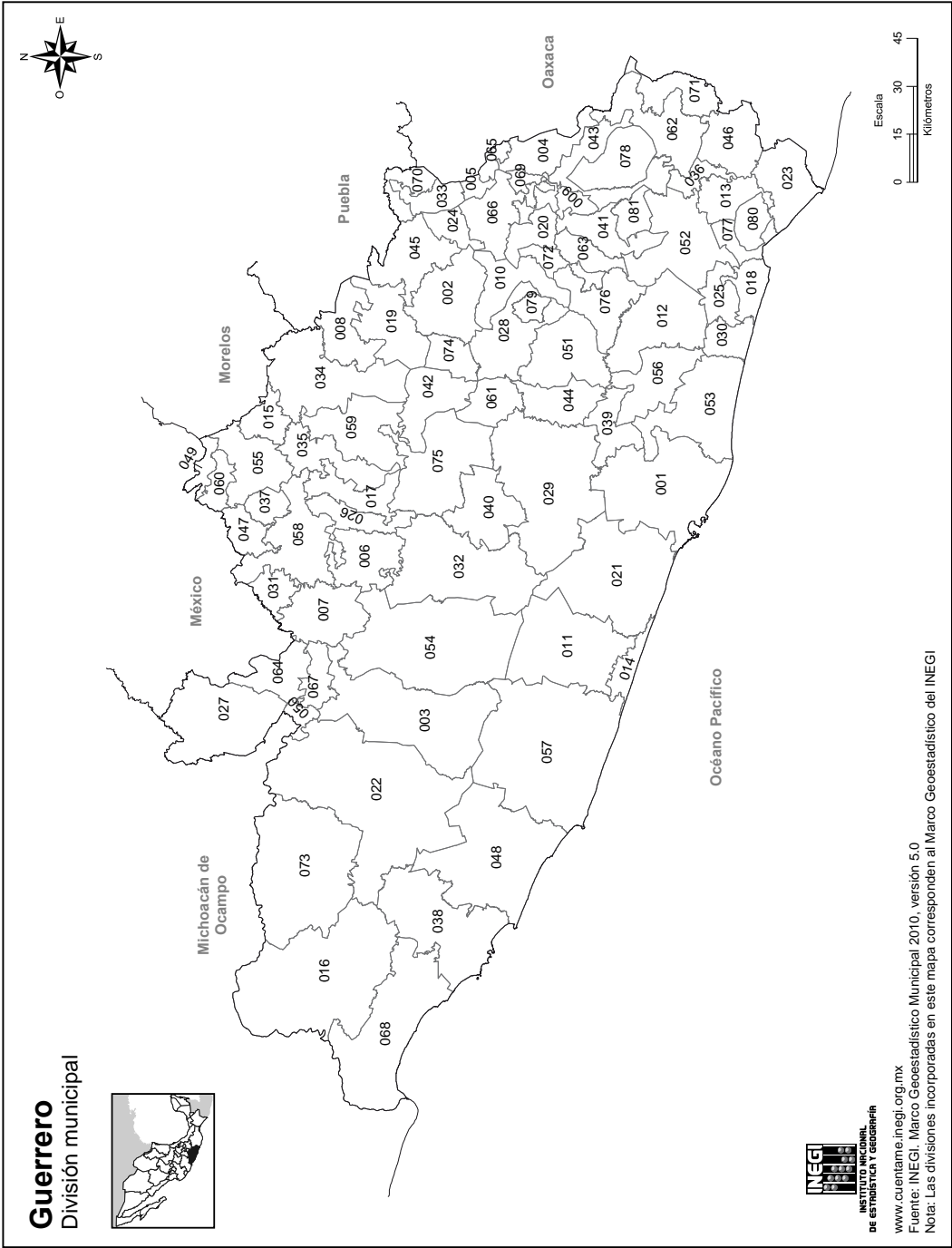
*Appendix 3.Narcotics Seizures in Illegal Laboratories in Guerrero*

Data	Municipality	Methampheta mines		Marihuana (for smoking)	Opium (for smoking)		Heroine		Morphine
		Ltr	Kg		Kg.	Ltr	Kg	Ltr	
2009	GRAL. HELIODORO CASTILLO								
2009	TÉCPAN DE GALEANA								
2009	CHILPANCINGO DE LOS BRAVO								
2010	GRAL. HELIODORO CASTILLO		7		16		4		
2010	GRAL. HELIODORO CASTILLO	29	50		150				
2012	LEONARDO BRAVO				95				
2012	COYUCA DE CATALÁN							3,64	
2012	GRAL. HELIODORO CASTILLO					74. 200			
2012	GRAL. HELIODORO CASTILLO								
2012	GRAL. HELIODORO CASTILLO				759				
2012	CHILPANCINGO DE LOS BRAVO				40	30	0. 115		
2013	ZIRÁNDARO								
2013	GRAL. HELIODORO CASTILLO				0.40 0				6.15 0
2014	GRAL. HELIODORO CASTILLO								
2013	COAHUAYUTLA DE J. MA. IZAZAGA								
2013	COAHUAYUTLA DE J. MA. IZAZAGA								
2013	COAHUAYUTLA DE J. MA. IZAZAGA		36						
2014	COAHUAYUTLA DE J. MA. IZAZAGA								
2014	ZIHUATANEJO								
2014	GRAL. HELIODORO CASTILLO				350				
2014	CHILPANCINGO DE LOS BRAVO			58.9 70	91.2				
2014	CHILPANCINGO DE LOS BRAVO			17.7 00	0.88 5				
27.0 2.14	QUECHULTENANGO								
23.0 3.14	LEONARDO BRAVO				50				

<b>29.0</b> <b>3.14</b>	COAHUAYUTLA DE J. MA. IZAZAGA								
<b>3.04.</b> <b>14</b>	GRAL. HELIODORO CASTILLO				40				
<b>5.04.</b> <b>14</b>	LEONARDO BRAVO					2.5			
<b>5.04.</b> <b>14</b>	GRAL. HELIODORO CASTILLO				23				
<b>10.0</b> <b>4.14</b>	IGUALA DE LA INDEPENDENCIA								
<b>28.0</b> <b>4.14</b>	LA UNIÓN DE ISIDORO M. DE OCA								
<b>29.0</b> <b>4.14</b>	LA UNIÓN DE ISIDORO M. DE OCA		1,06 0.355						
<b>2.05.</b> <b>14</b>	GRAL. HELIODORO CASTILLO								
<b>22.0</b> <b>8.14</b>	LA UNIÓN DE ISIDORO M. DE OCA								
	<b>TOTAL</b>	<b>29.</b> <b>000</b>	<b>1,15</b> <b>3.355</b>	<b>76.6</b> <b>70</b>	<b>1,61</b> <b>6.185</b>	<b>106</b> <b>.700</b>	<b>4.</b> <b>115</b>	<b>3,64</b> <b>0.000</b>	<b>6.15</b> <b>0</b>

Source. Federal Attorney's Office

Appendix 4.. Map of Guerrero by Municipal Divisions



Guerrero

División municipal

001 Acapulco de Juárez	042 Mártir de Cuilapan
002 Ahuacutzingo	043 Metlatónoc
003 Ajuchitlán del Progreso	044 Mochitlán
004 Alcozauca de Guerrero	045 Olinalá
005 Alpoyeca	046 Ometepec
006 Apaxtla	047 Pedro Ascencio Alquisiras
007 Arcelia	048 Petatlán
008 Atenango del Río	049 Pilcaya
009 Atliamajalcingo del Monte	050 Pungarabato
010 Atlixtlac	051 Quechultenango
011 Atoyac de Álvarez	052 San Luis Acatlán
012 Ayutla de los Libres	053 San Marcos
013 Azoyú	054 San Miguel Totolapan
014 Benito Juárez	055 Taxco de Alarcón
015 Buenavista de Cuéllar	056 Tecoaapa
016 Coahuayutla de José María Izazaga	057 Tépican de Galeana
017 Cocula	058 Teloloapan
018 Copala	059 Tepecoacuilco de Trujano
019 Copalillo	060 Tetipac
020 Copanatoyac	061 Tixtla de Guerrero
021 Coyuca de Benítez	062 Tlacoachistlahuaca
022 Coyuca de Catalán	063 Tlacoapa
023 Cuajinicuilapa	064 Tlalchapa
024 Cuahtác	065 Tlalixtlaquilla de Maldonado
025 Cuautepec	066 Tlapa de Comonfort
026 Cuetzala del Progreso	067 Tlapehuala
027 Cutzamala de Pinzón	068 La Unión de Isidoro Montes de Oca
028 Chilapa de Álvarez	069 Xalpatláhuac
029 Chilpancingo de los Bravo	070 Xochihuehuetlán
030 Florencio Villarreal	071 Xochistlahuaca
031 General Canuto A. Neri	072 Zapotitlán Tablas
032 General Heliodoro Castillo	073 Zirándaro
033 Huamuxtitlán	074 Zitlala
034 Huitzoco de los Figueroa	075 Eduardo Neri
035 Iguala de la Independencia	076 Acatepec
036 Igualapa	077 Marquelia
037 Ixcateopan de Cuauhtémoc	078 Cochoapa el Grande
038 Zihuatanejo de Azueta	079 José Joaquín de Herrera
039 Juan R. Escudero	080 Juchitán
040 Leonardo Bravo	081 Iliatenco
041 Malinaltepec	



www.cuentame.inegi.org.mx  
Fuente: INEGI. Marco Geoestadístico Municipal 2010, versión 5.0  
Nota: Las divisiones incorporadas en este mapa corresponden al Marco Geoestadístico del INEGI

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