

Violence and Coca Crops in Colombia's PDET regions

María José Daza B
Keough School of Global Affairs

INTRODUCTION

On November 24, 2016, the Government of Colombia (GoC) and the Revolutionary Armed Forces of Colombia (FARC) guerrilla, signed an historic peace agreement that ended a 52-year armed conflict.

With the aim of accelerating the structural transformation of remote rural areas, and in line with the peace agreement, in 2017 the GoC created 16 special development regions (PDET) covering 170 municipalities. The PDET districts were selected based on 4 criteria: areas highly affected by armed conflict; high levels of poverty; high presence of illegal economies; and low Institutional capacity.

This project analyses if (1) there has been a reduction of violence in the PDET regions, and (2) if there exists any relationship between the variation in violence levels, and the presence of illegal coca crops.

The project's timeframe goes from 2014 to 2019, which covers three years before and after the creation of the PDETs.

METHODOLOGY

Data Collection: violence (armed conflict events and victims of armed conflict) and coca crops data was gathered at the municipality level and was retrieved from OCHA's humanitarian monitor for Colombia and Colombia's Ministry of Justice and UNODC's joint integrated system for monitoring illicit crops (SIMCI).

Data Cleaning: Data on armed conflict events and victims of armed conflict was debugged so that only information of the 170 municipalities that conform the 16 PDET districts was kept. Furthermore, the data was organized into two subsets. The first one aggregated data from 2014 to 2016 and the second one data from 2017 to 2019.

Geographic Analysis:

1. **Mapping the 16 PDET districts:** In order to map the distribution of armed conflict and coca crops in the PDET regions, the project used the dissolve tool to aggregate the geographic area of the 170 municipalities into the 16 PDET regions.

2. **Armed conflict:** data on armed conflict events was illustrated by using dot density, for both the 2014-2016 and the 2017-2019 periods. Additionally, a table join between the 16 PDET regions and data on victims of armed conflict was performed for producing two choropleth maps that showed the victim count in each of the regions and municipalities.

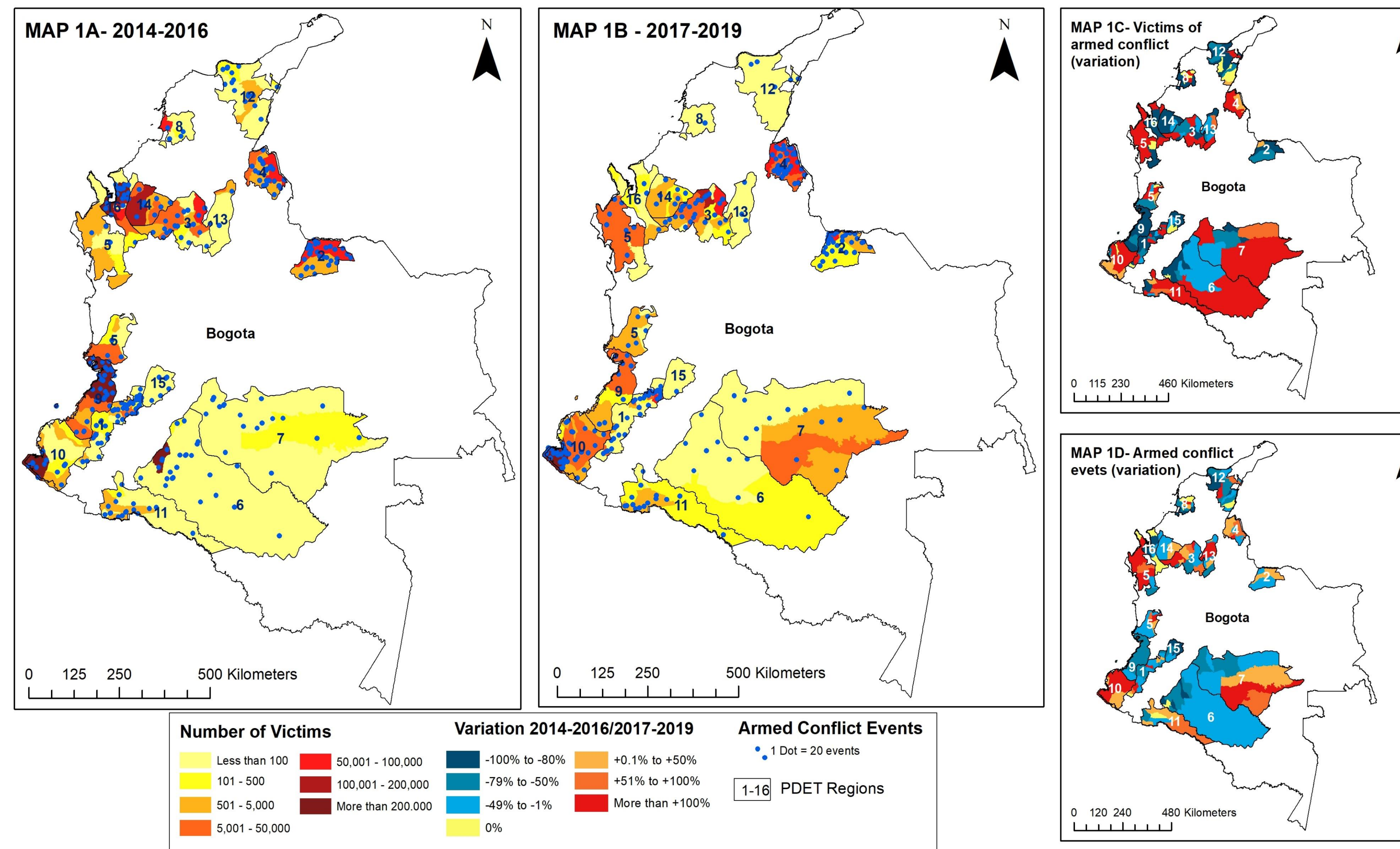
3. **Coca Crops:** data on coca crops at the municipality level was mapped by means of dot density quantitative analysis. Yet, for a more accurate analysis on the distribution and number of hectares planted, this data was complemented with UNODC's maps on the variation and permanence of coca crops measured by hectares.

LIMITATIONS

One of the limitations of this research is that data relating to armed conflict events was coded in a way that it didn't allow to set apart between the different types of events, which in turn limits the analysis of what kind of violent acts are increasing and which ones are decreasing.

In regard to coca crops, the biggest limitation was that most of the data was in the form of raster data. Vector data was limited. To overcome this shortcoming, the project imported and georeferenced raster data maps that had already been produced by UNODC.

FIGURE 1- ARMED CONFLICT EVENTS AND VICTIMS OF ARMED CONFLICT IN PDET REGIONS



RESULTS AND CONCLUSIONS

Map 1.A and 1.B show that conflict events and victims concentrate mostly on the West and North-West portions of the country (regions 2, 4, 9, 14 and 16). For the 2017-2019 period, there is a notable increase of victims in region 7 and a reduction of them in region 2.

This signals that despite the creation of the PDET regions, conflict continues to develop in the same areas that it did before the signature of the peace agreement.

Maps 1C and 1D show that for regions 6 and 7 there has been a reduction in armed conflict events, yet victims have increased. This suggests there is a change on the type of conflict events happening in these regions.

Map 2.A illustrates that coca plantations concentrate in the same regions (1,4,9,10 and 11) for the two analyzed periods.

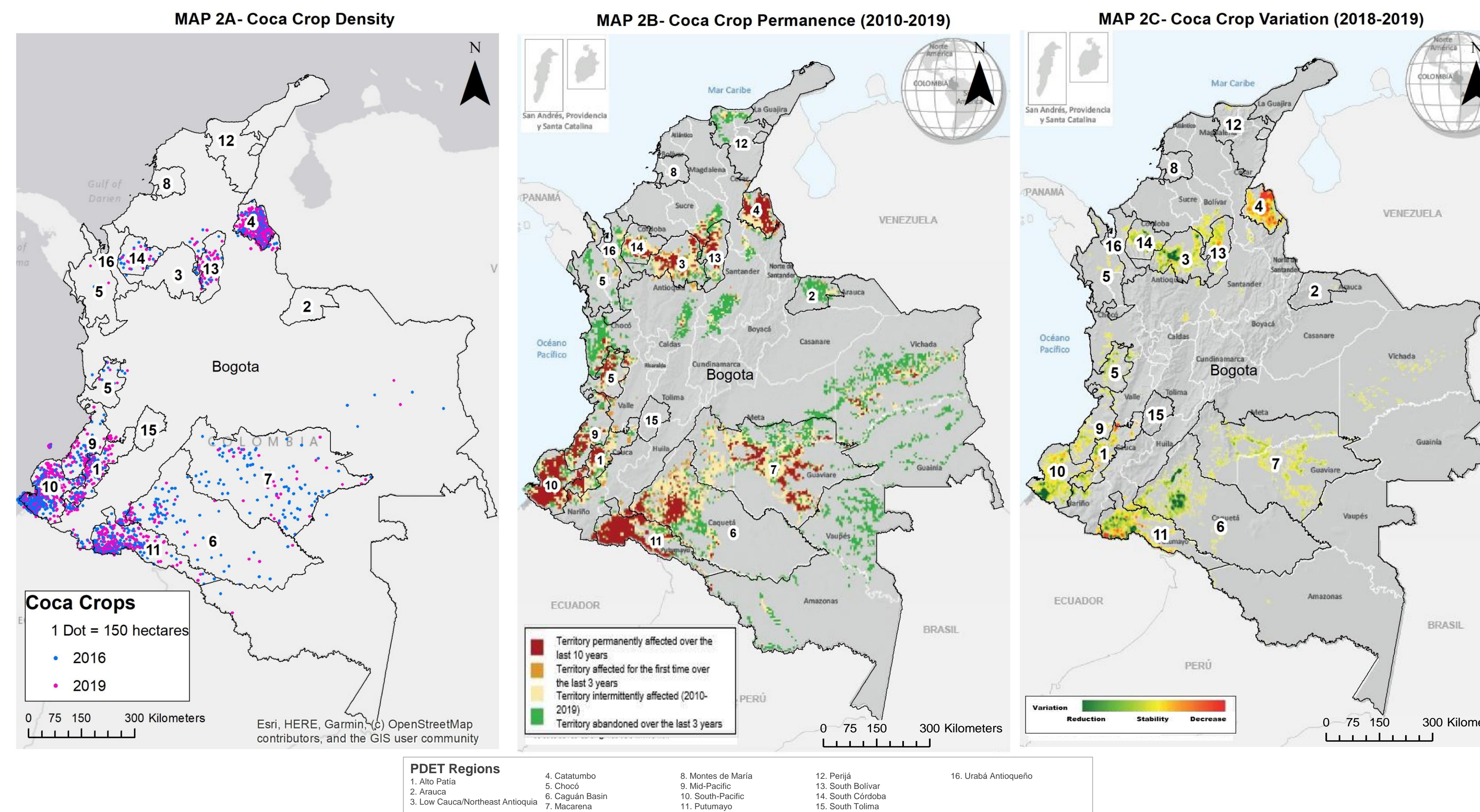
This finding is confirmed by Map 2.B, as the aforementioned regions are signaled as permanently affected by coca crops over the last 10 years (2010-2019). This map, however, also shows that there aren't any major "new" areas affected by coca crops.

Map 2.C, which illustrates the changes of coca crops between 2018 and 2019, displays that despite the high density of crops in regions 10 and 11, there has in fact been a reduction in the number of planted hectares in these regions.

If observed in conjunction with the violence maps, this shows that violence is related not only with the density of the crops, but also with their variation.

In conclusion, the research demonstrates that, although there is a general coincidence between the regions with presence of coca crops and regions where violence has augmented, increased hectares of coca plantation do not always account for the raise of violence.

FIGURE 2- COCA CROPS IN PDET REGIONS



RECOMMENDATIONS AND FURTHER RESEARCH

This research suggest that although it exists a correlation between violence and coca crops, this relationship must be analyzed carefully, as less crops do not always equate with less violence.

In terms of peacebuilding, this means actions towards the reduction of violence in PDET regions must go beyond coca eradication and need to take into consideration other drivers of violence such as low institutional capacity and high levels of poverty.

As to coca eradication, further research should be done in order to better understand how different forms of coca eradication (e.g. forced vs. voluntary, or manual vs. glyphosate aspersion) correlate with varying levels of violence.

SOURCES

Administrative boundaries - Datos Abiertos ESRI Colombia <https://datosabiertos.esri.co/>
Violence - OCHA Colombia Humanitarian Monitor <https://monitor.salahumanitaria.co/#>
Coca Crops - UNODC -Survey of territories affected by illicit crops (2016 and 2019) <https://www.unodc.org/unodc/en/crop-monitoring/?tag=Colombia>
Observatorio de Drogas de Colombia <http://www.odc.gov.co/sidco/perfiles/estadisticas-nacionales>