

# DEFORESTATION AND VIOLENCE IN BRAZIL

Deforestation Is An Ongoing Problem In Brazil, Affecting The Country's Rich Biodiversity, Indigenous Communities, And Rural Workers (Often Violently).

## SUMMARY

We analyzed the statistical relationship between deforestation and violence in Brazil using annual municipal level data for the 2008-2019 time period, for both the Cerrado biome and the Legal Amazon.

In addition, we investigated publicly available data linking international trading firms to quantities of deforestation to identify the role of U.S. consumers, trading companies, and financial institutions in deforestation through soy and beef trade.



## ROLES



HANDS ON  
DATA COLLECTION



DYNAMIC MODELING



IN-DEPTH ANALYSIS



MERGING ACADEMIC  
RESEARCH AND INDUSTRY  
APPLICATIONS

## SOLUTION

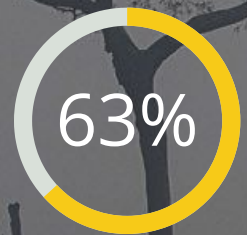
Our analysis contributes new **robust models** that we derived after **collecting data first-hand** from local organizations and **merging publicly available data sources**. Our final dataset has a **broad regional scope** that encompasses municipalities not previously included in other studies. We specified **time & regional parameters** and implemented a **more conclusive measure of violence**: we utilized murder and murder attempt data whereas previous studies largely focused on conflicts related to land rights disputes. These notable distinctions, along with some smaller technical differences, allowed us to observe the deforestation problem in a **more comprehensive** manner than previously done.

## RESULTS



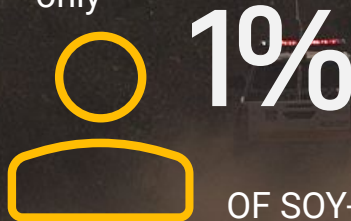
+ 46.1%

increase in the probability  
of **violence** with every  
100% increase in  
**deforestation**



of soy-driven  
deforestation is  
attributable to the  
**top 3 U.S. firms**  
exporting soy out of Brazil

U.S. **consumers**  
can be linked to  
only



1%

OF SOY- &  
BEEF-DRIVEN  
DEFORESTATION



13%

of soy-driven  
deforestation is linked to  
the **top 3 financial**  
**institutions**; all of which  
are U.S. based



INTELLIGENT  
ANALYTICS  
& MODELING