- Look for potential useful variables to introduce in the model:
    1. Droughts … Or normalized difference vegetation index (NDVI), vegetation condition index (VCI), and temperature condition index (TCI)
    2. Displacements
    3. Livestock prices (food)
    4. International trading
    5. Population density (conflicts are always higher in capitals?)
    6. Socioeconomic indicators (poverty line)
    7. Food insecurity
    8. Diseases (Cholera in the horn of Africa: cholera becomes more prevalent when temperatures are high and rainfall conditions are changing.)
    9. Variable to describe the coping capacity of a certain region

- Find websites with datasets:
    1. SPEI (https://spei.csic.es/database.html#p7), PDSI, NDVI (https://dataviz.vam.wfp.org/seasonal_explorer/rainfall_vegetation/visualizations), SPI
    2. https://www.internal-displacement.org/database/displacement-data, https://data.humdata.org/dataset?q=displacements (Horn of Africa: https://data.humdata.org/dataset?groups=eth&groups=ken&groups=som)… But data from 30/04/2016, https://dtm.iom.int/datasets
    3. WFP dataviz
    4. International trading
    5. Population density (conflicts are always higher in capitals?)
    6. Socioeconomic indicators
    7. https://data.humdata.org/dataset/food_security

- Check whether they are significant in the regression

SPEI

- The Standardized Precipitation Evapotranspiration Index (SPEI) is an extension of the widely used Standardized Precipitation Index (SPI).

- The SPEI is designed to take into account both precipitation and potential evapotranspiration (PET) in determining drought.

SPEI value	Class
More than 2.00	Extremely wet (humid)
1.50 to 1.99	Severely wet
1.00 to 1.49	Moderately wet
0.50 to 0.99	Slightly wet
–0.49 to 0.49	Near normal
–0.99 to –0.50	Mild dry
–1.49 to –1.00	Moderately dry
–1.99 to –1.50	Severely dry
Less than –2.00	Extremely dry (drought)

PDSI

- The Palmer Drought Severity Index (PDSI) uses readily available temperature and precipitation data to estimate relative dryness. It is a standardized index that generally spans -10 (dry) to +10 (wet).

- I didn’t find gridded datasets with high resolution

	A	B	C	D	G	I
1	ISO3	Country / Territor	Year	Event Name	Disaster Internal Displacer	Hazard Type
2	SOM	Somalia	2022	Somalia: Drought - Countrywide - 2(	1134143	Drought
3	ETH	Ethiopia	2022	Ethiopia: Drought - Countrywide - 0	685740	Drought
4	KEN	Kenya	2022	Kenya: Drought - Garissa - 2022	183216	Drought
5	KEN	Kenya	2022	Kenya: Drought - Turkana - 2022	92352	Drought
6	IRQ	Iraq	2022	Iraq: Drought - 8 Governorates - 01	50514	Drought
7	KEN	Kenya	2022	Kenya: Drought - Marsabit - 2022	30150	Drought
8	AFG	Afghanistan	2022	Afghanistan: Drought - Hilmand (Ba	11181	Drought
9	KEN	Kenya	2022	Kenya: Drought - Isiolo - 2022	10488	Drought
10	DJI	Djibouti	2022	Djibouti: Drought - Countrywide - 0	6086	Drought
11	MDG	Madagascar	2022	Madagascar: Drought - 2022	5214	Drought

model

Build a causality and theoretical model

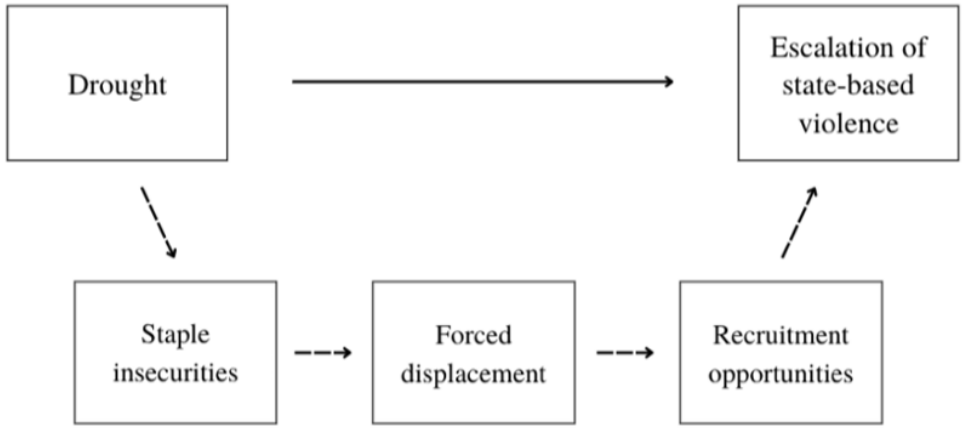

Figure 3.2.1 Macro and micro levels of the causal mechanism

Use conflict as an independent variable and displacements as the dependent one?

IDV: drought flood (temp anomalies) conflicts

DV: internal displacements network

model

- Two-Stage least squares (2SLS) regression analysis is a statistical technique that is used in the analysis of structural equations. This technique is the extension of the OLS method.
- It is useful when there are feedback loops in the model.
- Problem of endogenous variables, correlated with the error term

Omitted variable bias

In our model we omit variables that are not measurable, i.e. they represent qualities that are intrinsic to the unit being measured.

In our case the unit is the country, and an example of a unit-specific variable could be the socioeconomic fabric of the country that fuels or inhibits conflicts under different environmental circumstances, or cultural aspects of decision-making of the government or the population that have evolved over hundreds of years in that country.

All these factors impact the change in conflicts, but they cannot be directly measured. While training the model on the panel data set, if we leave out such factors from the model, it will cause what is known as the omitted variable bias.

Dummy variables in fixed effects regression