

Presentation Draft for the Workshop: Mapping and Modeling Climate Security Vulnerability, University of Texas at Austin, May 16-17, Day 2, Session 1: Governance and Violence Mapping

### **The GeoEPR Dataset:**

#### **Mapping Politically Relevant Ethnic Groups across Space and Time**

The GeoEPR dataset charts all politically relevant ethnic groups worldwide. The dataset covers 1946 – 2005 and accounts for changes in the spatial representation of groups over time. The data is provided in GIS shapefile format.

#### 1. Starting point

Within the context of the role of geography in civil wars, the spatial location of ethnic groups that might be involved in a conflict is an important factor. The GeoEPR data is based on two datasets which deal with ethnic groups: (1) the GREG dataset represents settlement patterns of ethnic groups worldwide, (2) the EPR dataset identifies politically relevant ethnic groups and their access to power over time. Both datasets are briefly introduced in the following. The GeoEPR combines the geo-referenced data with the dynamic group list of politically relevant groups and the ethnic power relations.

##### 1.1. Geo-referencing Ethnic Groups (GREG)

Designed to identify the location of conflict parties, the GREG data project geo-references ethnic groups worldwide based on the Soviet Atlas Narodov Mira. The GREG dataset uses GIS to represent group territories as polygons and has detailed global coverage (Weidmann et al. 2010). Although the GREG dataset is a pioneering contribution to spatial analysis of ethnic groups, it has some disadvantages: it is time invariant, the Soviet data from 1964 is outdated, and because it has been charted by Soviet ethnographers there are biased accuracy levels (Wucherpfennig et al. 2010).

##### 1.2. Ethnic Power Relations Dataset (EPR)

The EPR dataset identifies all politically relevant ethnic groups in a country and records the level of access to central state power by their representatives (Wimmer et al. 2009: 317). Ethnicity is defined as any subjectively experienced sense of commonality based

on the belief in common ancestry and shared culture (Weber 1978: 383 – 398). Thus, the definition of ethnicity includes ethno-linguistic, racial, and ethno-religious groups, but not tribes and clans (Cederman et al. 2010: 42). An ethnic group is considered relevant if at least one political actor claims to represent the group in national politics, or if the members of the group are politically discriminated.

The following degrees of access to power are distinguished:

- (1) *Monopoly*: Elite members of the ethnic group hold monopoly power in the executive.
- (2) *Dominant*: Elite members hold dominant power in the executive with limited inclusion of members of other groups.
- (3) *Senior Partner*: Representatives participate as senior partners in a power sharing agreement.
- (4) *Junior Partner*: Representatives participate as junior partners in a power sharing agreement.
- (5) *Regional Autonomy*: Elite members have no central power but have some influence at the sub-national level.
- (6) *Separatist Autonomy*: Elite members declared their territory independent from central government.
- (7) *Powerless*: Elite representatives hold no political power.
- (8) *Discriminated*: Group members are actively discriminated with the intent of excluding them from political power.

Monopoly and dominant groups hold absolute power of the central government, whereas senior and junior partners divide the central power among each other. Groups with regional or separatist autonomy, powerless and discriminated groups are excluded from central power.

The EPR codes different sub-periods when the number of politically relevant groups and the access to executive power change over time.

## 2. The GeoEPR Dataset

Based on the list of ethnic groups included in the EPR dataset, the GeoEPR allocates a settlement type to each ethnic group and provides their regional bases. Further, the GeoEPR codes changes in the geographic representation of ethnic groups over time and distinguishes different geographic periods, for instance when the settlement patterns change, when a group migrates, or when modified state borders cut through the region of an ethnic group.

The following settlement patterns are distinguished:

- (1) *Regionally based*: Group members reside in particular region.
- (2) *Urban*: Group members are located primarily in urban areas.
- (3) *Regional urban*: Group members live in particular region and city.
- (4) *Dispersed*: Group members do not inhabit particular region or city.
- (5) *Migrant*: Group members often change location.
- (6) *Aggregate*: Group that is aggregated from several smaller groups.

Regional bases are defined for all ethnic groups that are either regionally based, regional urban and aggregate. Group-referenced polygons indicate the ethnic group settlement location. The following example shows the GeoEPR coding for Ethiopia in 1990 respectively 2000.

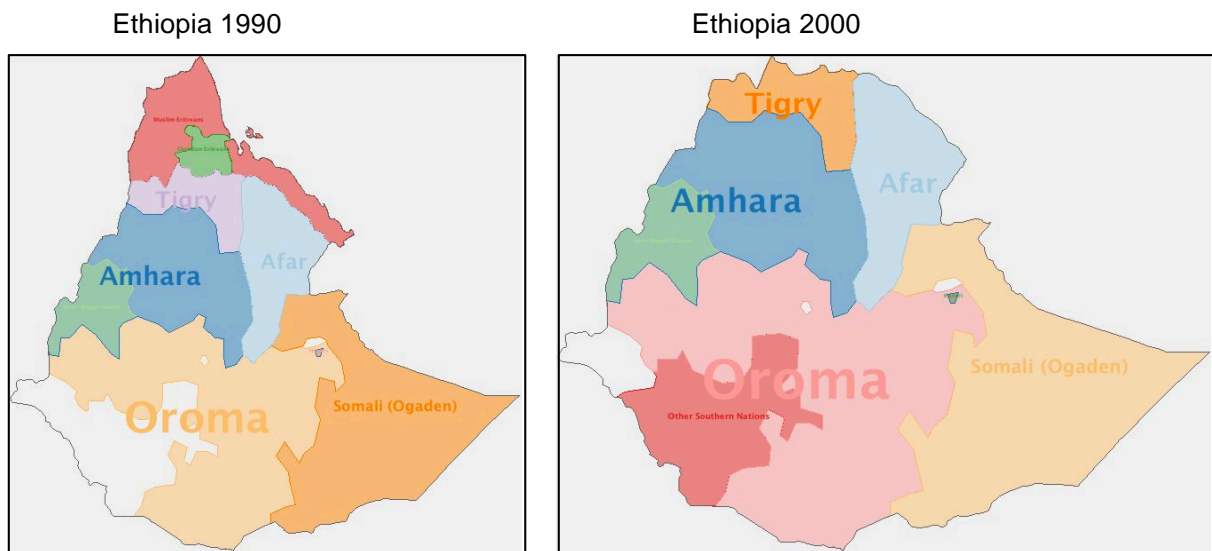


Figure 1. GeoEPR Coding for Ethiopia

Because the GeoEPR is directly linked to the EPR dataset it includes information on the political status of the ethnic groups. It is, for instance, possible to spatially locate all groups that are excluded from power in a country or region. The following example displays the GeoEPR coding for Azerbaijan in 2000 with the excluded groups highlighted in red.

### Azerbaijan 2000

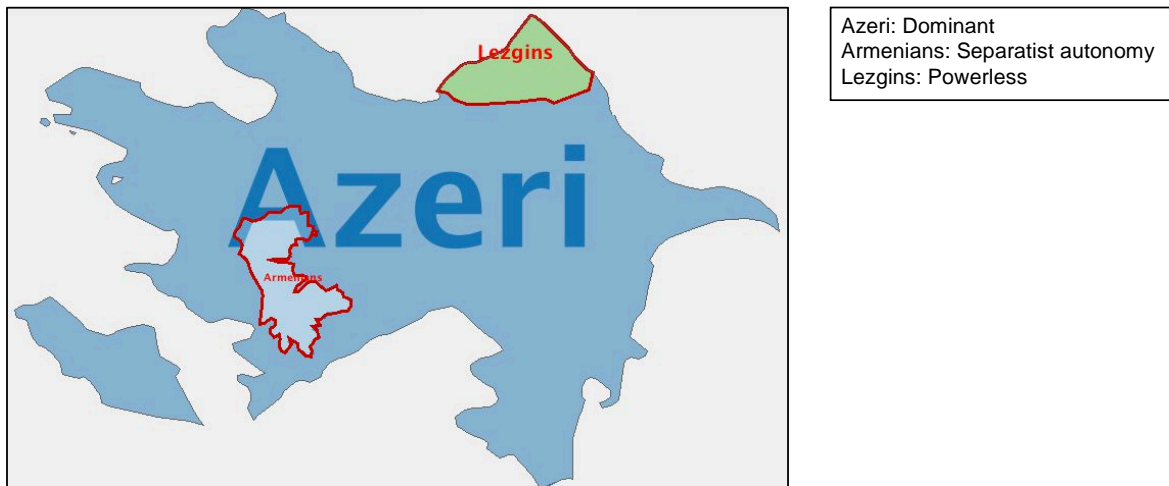


Figure 2. GeoEPR Coding for Excluded Groups in Azerbaijan 2000  
Groups excluded from central power marked in red.

### 3. Download

The Data can be downloaded from <http://dvn.iq.harvard.edu/dvn/dv/epr>. The dataset covers 1946 - 2005. An update until 2009 is currently finalized.

### 4. Bibliography

- Cederman, Lars-Erik, Min, Brian and Andreas Wimmer (2010): "Why Do Ethnic Groups Rebel? New Data and Analysis", *World Politics*, 62 (1): 87–119.
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