

The Nexus between Climate Change, Migration and Security and its Implications for Access to Clean Water

Vally Koubi



Motivation

- No shortage of political and media interest in the climate change-migration nexus



- Literature regards the environment-migration nexus as self-evident and speculates about the major consequences that could follow

Protests

Riots

Conflict



Environment → migration → conflict?

- Given that most empirical evidence
 - a. is anecdotal or confined to only one (or a few) specific cases
=> not generalizable
 - b. is derived from aggregated levels of analysis, i.e., country
=> ecological fallacy

====> the challenge is to show that



Environment → migration → conflict?

- The alleged pathway is overly *deterministic because not all migrants are* constantly engaged in conflict
- Limited knowledge of the precise mechanisms underlying the environmental change-migration-conflict relationship
 - insufficient evidence for policy-makers to act upon

Theoretical Argument

- Direct exposure to environmental change in their former location shapes migrants' conflict perception in their new location
- Environmental events inflict casualties and extensive property and infrastructure destruction
 - directly and negatively affect individuals' perceptions regarding their satisfaction with and well-being at their present location
 - have the potential to incite relative deprivation and grievances that shape individuals' conflict perceptions

Theoretical Argument

- However, not all types of environmental stressors should have the same effect on individual grievances and, thus, conflict perceptions

- Conflict perception depends on the type of environmental change, as individuals are likely to be affected differently by
 1. Sudden onset, short-term events
 2. Gradual, long-term events

Long-term environmental events

- Have a rather small-immediate impact on individuals
 - Individuals may adjust their productive strategies and lives over time
 - However, long-term environmental events can disrupt economic development, raise income inequality, and weaken state capacity
- increase willingness for violence and intensify conflict perceptions, which persist in individuals' minds for a long time

Hypothesis 1: *Environmental migrants having experienced gradual, long-term environmental events are more likely to perceive conflict in their new location*

Short-term environmental events

- Have a rather large immediate impact on individuals
- However, short-term environmental events:
 - affect most individuals similarly
 - do not create as much relative deprivation

Hypothesis 2: *Environmental migrants having experienced short-term environmental events are unlikely to exhibit any significant conflict perception in their new location.*

Research Design

Micro-level survey data:

- 3,650 personal interviews with migrants and non-migrants
- 5 countries:
 - Vietnam, Cambodia, Uganda, Nicaragua, Peru
- Sampling Strategy:
 - Within countries, regions affected by specific environmental events were selected
 - Within regions, random selection of districts and villages
 - non-migrants: random selection of individuals/households
 - migrants: snowballing to match number of non-migrants from same village

Location of the surveys

	Cambodia	Nicaragua	Peru	Uganda	Vietnam
Environmental problems	Droughts Floods Cyclones	Droughts Cyclones	Droughts Floods	Droughts Heavy rains Floods	Droughts Floods Cyclones Salinization
Number of respondents (50% migrants)	600	600	617	672	1200
GDP per capita in 2013	946 USD	6424 USD	1777 USD	653 USD	1755 USD
Survey period	January to February 2014	March to April 2014	July to August 2014	September to October 2013	September to October 2013

Research Design

- Dependent variable:
 - a migrant perceived conflict (1) or not (0)

- Independent variable:
 - “perceived” environmental event:
 - Individual reported that an environmental event, i.e., a sudden-onset/rapid or low-onset/long-term , was present at current/last location

- Control variables:
 - gender, age, household member has already migrated, economic wealth (self-assessment of economic reason, household status, education, and profession), political system, economic level

Results

- Migrants due to sudden and short-term environmental events are less likely to perceive conflict in their new location
- Migrants due to slow-onset and long-term environmental events are more likely to perceive conflict in their new location
- Standard demographic variables (household member had migrated, age, sex) have little effect on migrants' conflict perception
- Economic conditions could matter

Perceptions of the local population

- Perceptions of the local population could reinforce this pattern
 - migrants of sudden events as being more legitimate than migrants of gradual events
 - migrants of long-term events are more likely to being perceived as competitors for jobs and public goods (e.g., water, public infrastructure, education, health)
- Such socioeconomic environments, where locals compete with migrants for those public goods and migrants feel marginalized, could shape both natives' and migrants' conflict perceptions and, hence, provide a fertile ground for political violence.

Water as a source of conflict

- Water is a public good => its quantity, quality and access depend on the capacity and quality of domestic institutions.
- Planning, infrastructure and adaptability to climatic changes are very important for coping with water scarcity and decrease the likelihood of conflict. Yet, many countries in particular developing ones lack adequate policies to deal with water.
 - water access is mainly based on the political weight of certain communities/groups or geographical areas rather than on need and vulnerability and is subject to corruption of public (governmental and administrative) officials who use water access as a tool to gain electoral success or increase personal wealth.
- Unequal water access that favors some groups or areas while leaving other groups marginalized can foster grievances that lead to conflict.

Implications

- Hence, rather than postulating a direct relationship between water scarcity and conflict, it would be more valuable and practical to look at how economic and political institutions as well national policies influence water availability and distribution.
- Domestic and international responses should be timely and avoid further scenarios in which the effects of climatic changes are exacerbated by mismanaged policies and decisions
- In meantime, concrete actions that can minimize vulnerability to climatic changes and mitigate conflict should focus on the avoidance of persistent inequality and injustice