

Environmental change and migration: A review of West African case studies

Kees van der Geest

United Nations University Institute for Environment and Human Security (UNU-EHS)

GlobeDrought webinar, 26 March 2019



Routledge Handbook of Environmental Displacement and Migration

Edited by Robert McLeman and François Gemenne

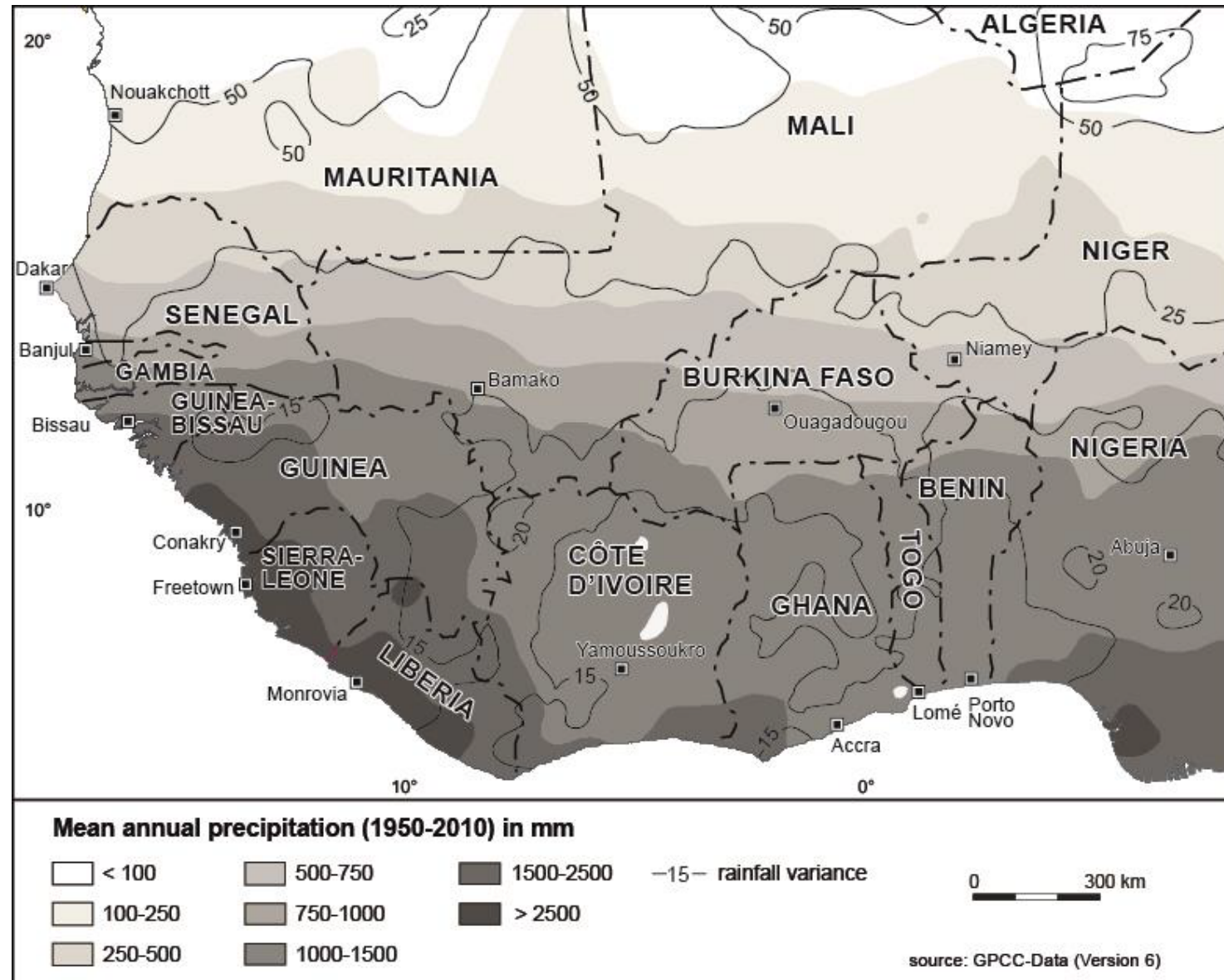
Other authors of the chapter:

- Victoria van der Land
- Clemens Romankiewicz

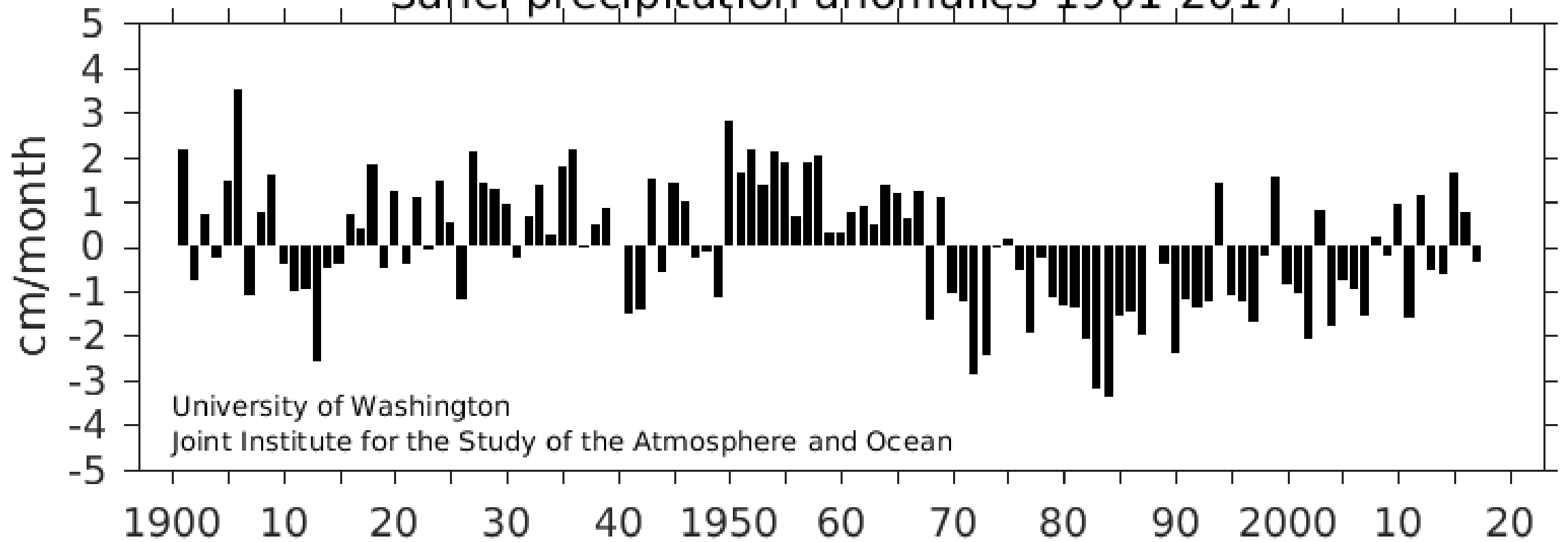
Review of 15 case studies

- Methods
- Findings

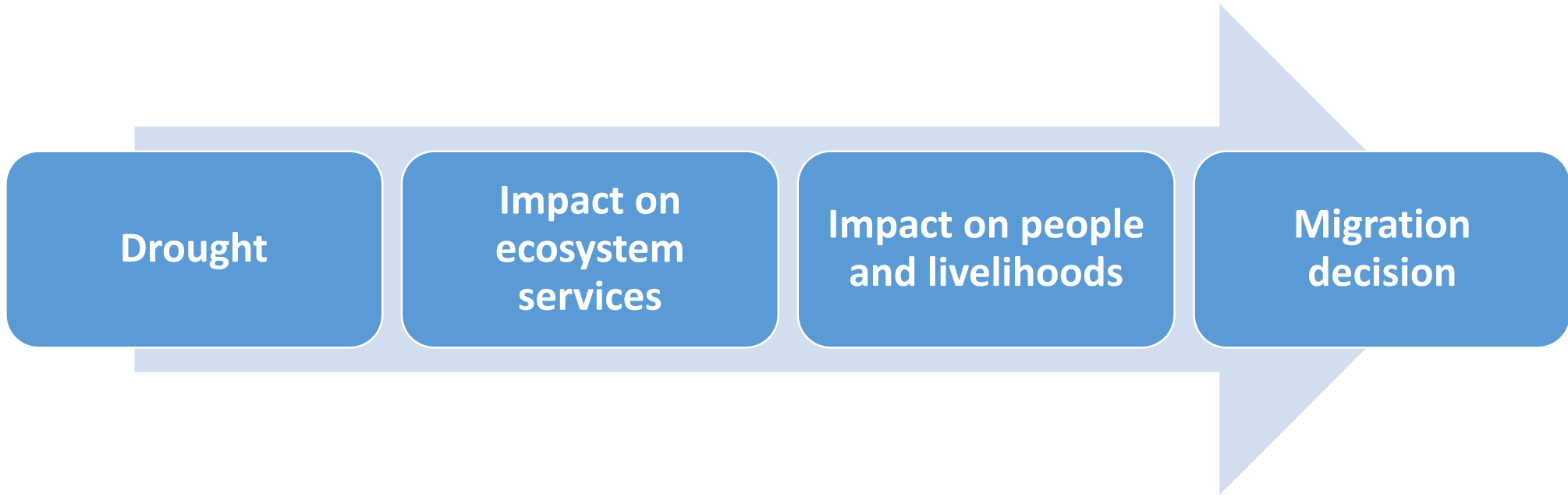
- High seasonality
- Rainfed agriculture is the main source of livelihood
- → intuition that climate change and variability **MUST** play a role



Sahel precipitation anomalies 1901-2017



University of Washington
Joint Institute for the Study of the Atmosphere and Ocean



Drought

**Impact on
ecosystem
services**

**Impact on people
and livelihoods**

**Migration
decision**

Methods

1. Ecological inference based on area characteristics;
 2. Sample surveys;
 3. Time series;
 4. Multilevel analysis;
 5. Agent-based modelling (ABM);
 6. Qualitative and ethnographic work.
- Mixed method research: often survey + qualitative

Methods

- Source and destination
- Need to combine levels of analysis
- Lack of longitudinal perspective
- Risk: environmental determinism
- Few studies look at gender

Common findings

- Multi-causality:
 - Never the only cause
 - Usually not the prime driver
- Patterns:
 - Environmental conditions drive temporary migration
 - Mostly internal migration or to neighbouring countries
 - Environmentally induced migration most common among male farmers with low levels of education
- Disaster migration (displacement) not common
- Conflict not often found to be a factor (different now?)
- Drought can also limit migration, especially longer distance

Overall finding

The reviewed studies suggest that the underlying motives for migration are manifold and migration is often a voluntary decision, which goes beyond risk prevention and adaptation to environmental stress. Better income opportunities and the desire for progress, prosperity and a different lifestyle - inspired by the prestige and economic achievements of previous migrants - are important motives for people's economic migration



Case study example: Ghana

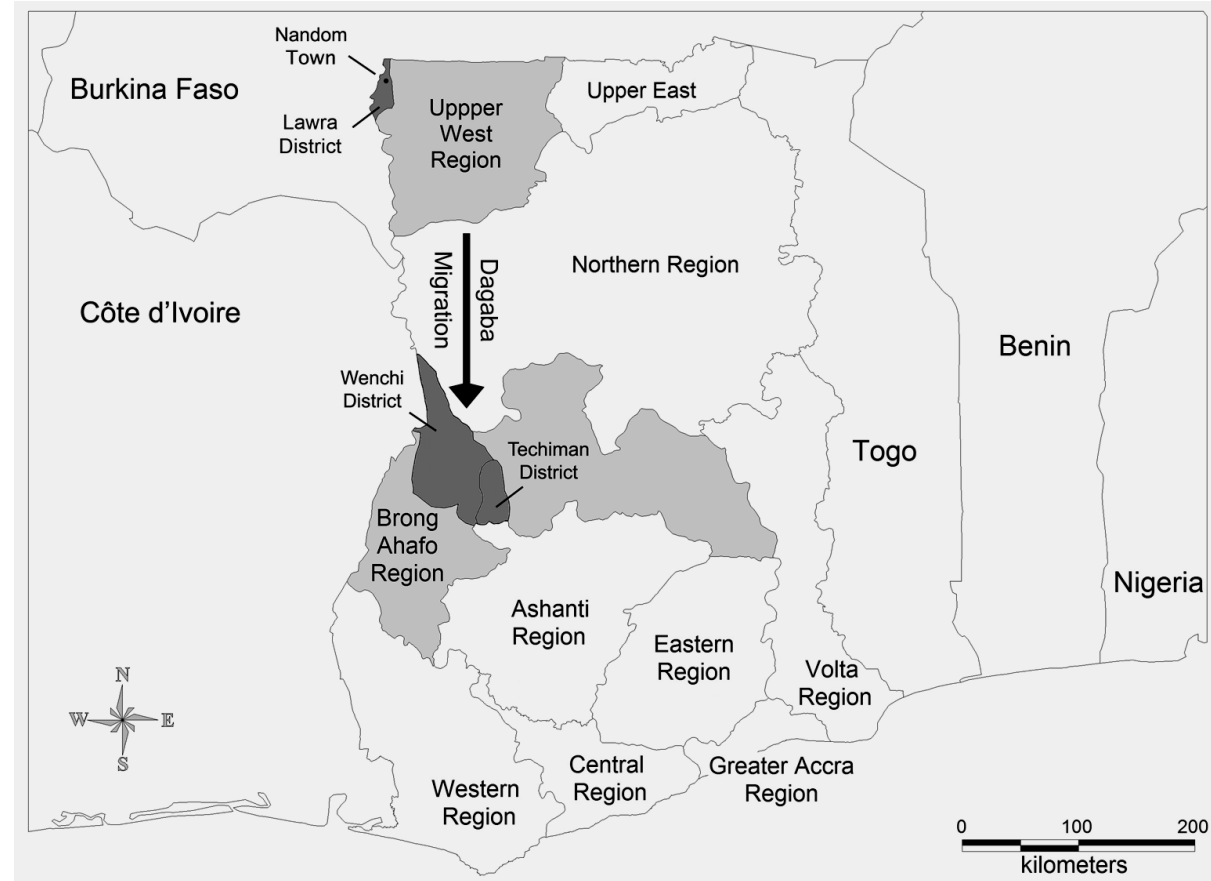


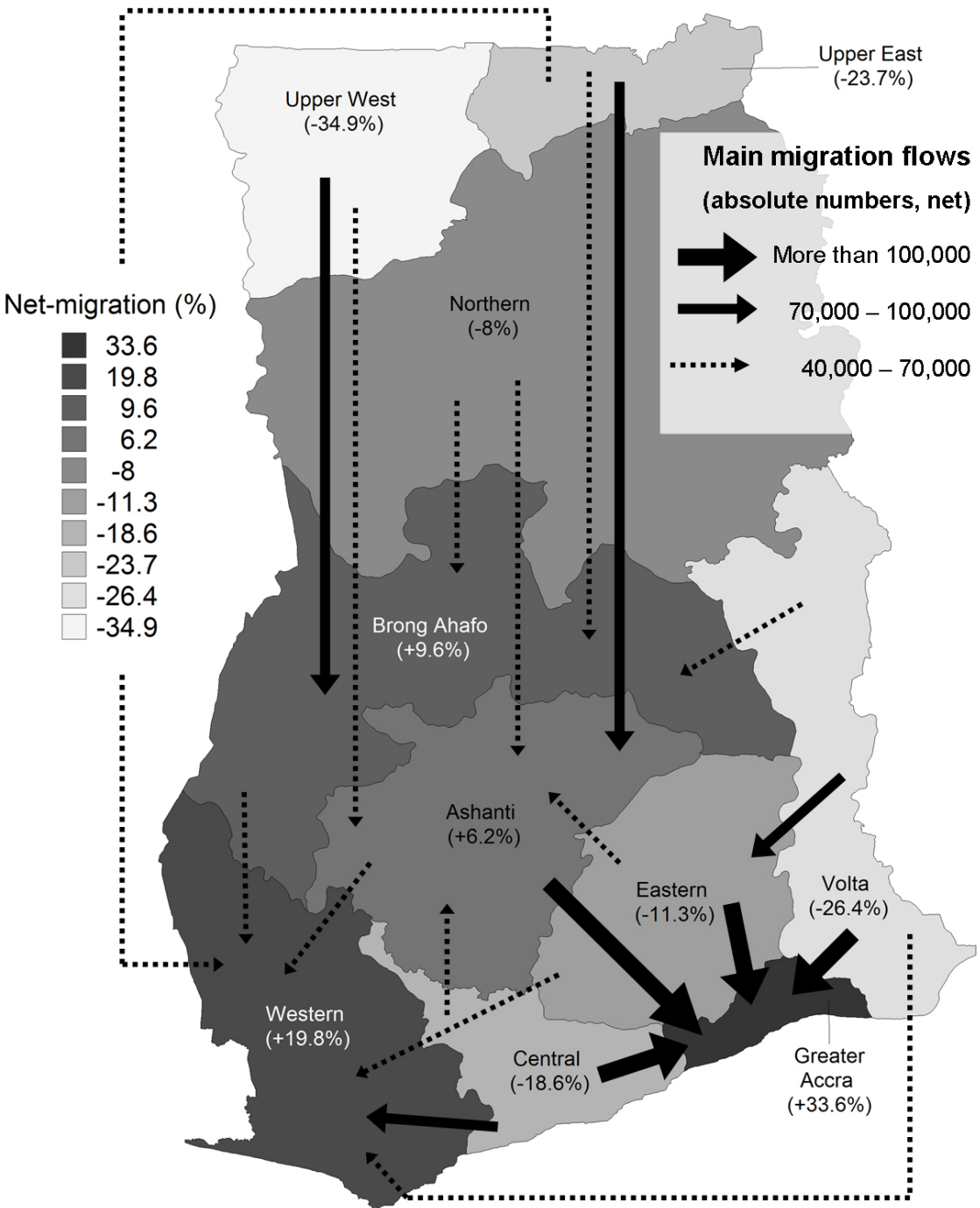
The Dagaba farmer at home and away

Migration, environment
and development in Ghana

Kees van der Geest

African Studies Centre

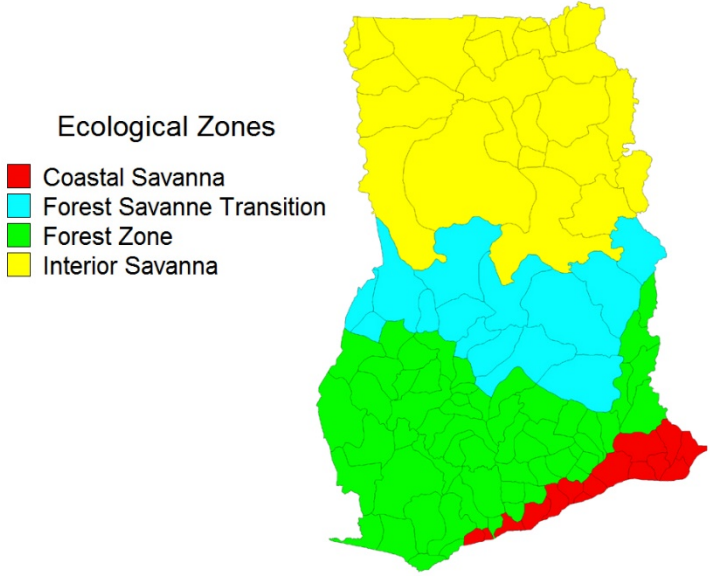




Three principal inter-regional migration flows in Ghana:

1. North to South = mostly farmer migration
2. To national capital Accra = mostly urban-urban migration
3. Cocoa frontier settlement = mostly farmer migration

Rural-urban migration is mostly intra-regional



Methods

- Local case studies in source and destination areas

 - Questionnaires

 - Focus group discussion

 - Life histories

- Regional analyses of migration and natural resources

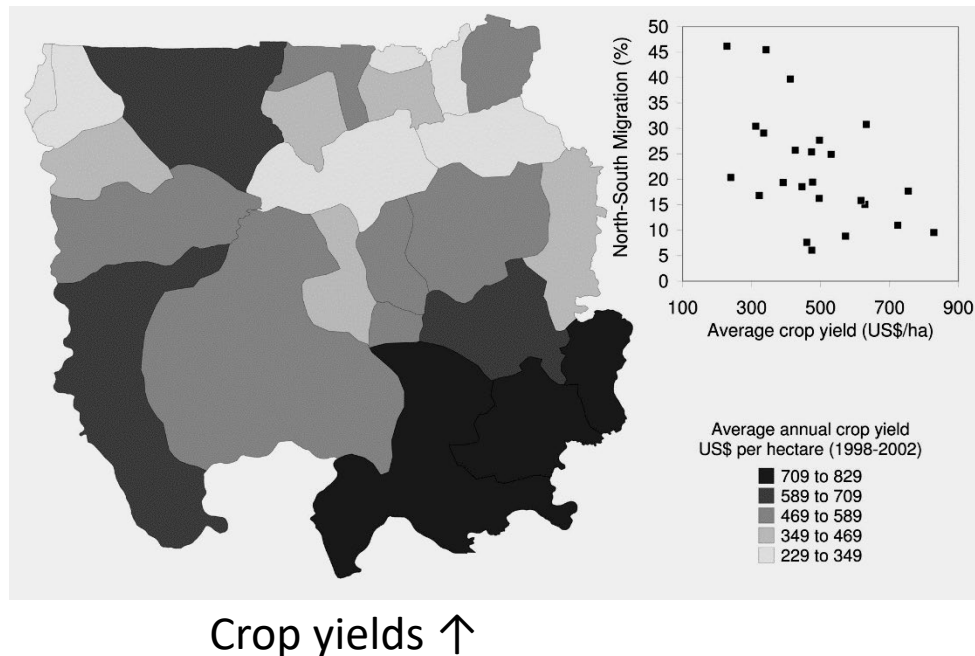
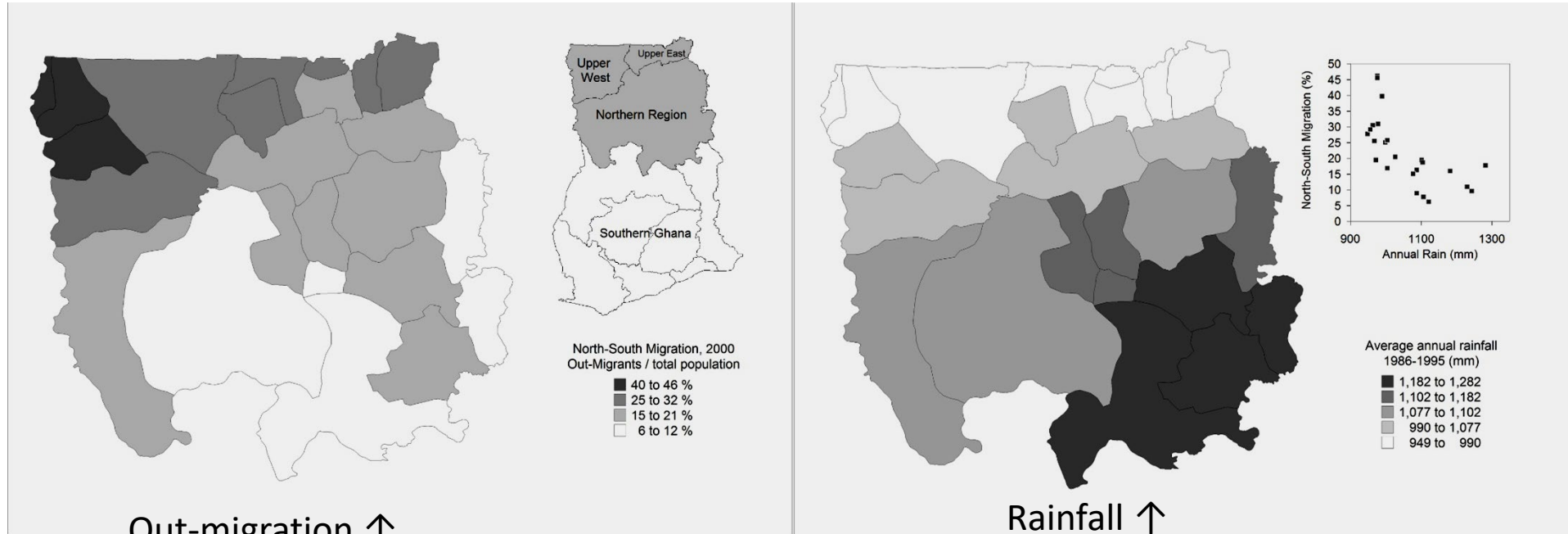


Findings from interviews

- Common reasons to migrate:
 1. Scarcity of fertile land at home / availability of land in Brong Ahafo
 2. Poverty / to make money
 3. Hunger / to improve food security
- Not often mentioned:
 - Unreliable rainfall / climate change
 - Environmental degradation
 - Lack of employment opportunities
- Not mentioned:
 - Sudden onset environmental stresses (natural disasters)
 - Conflict over natural resources



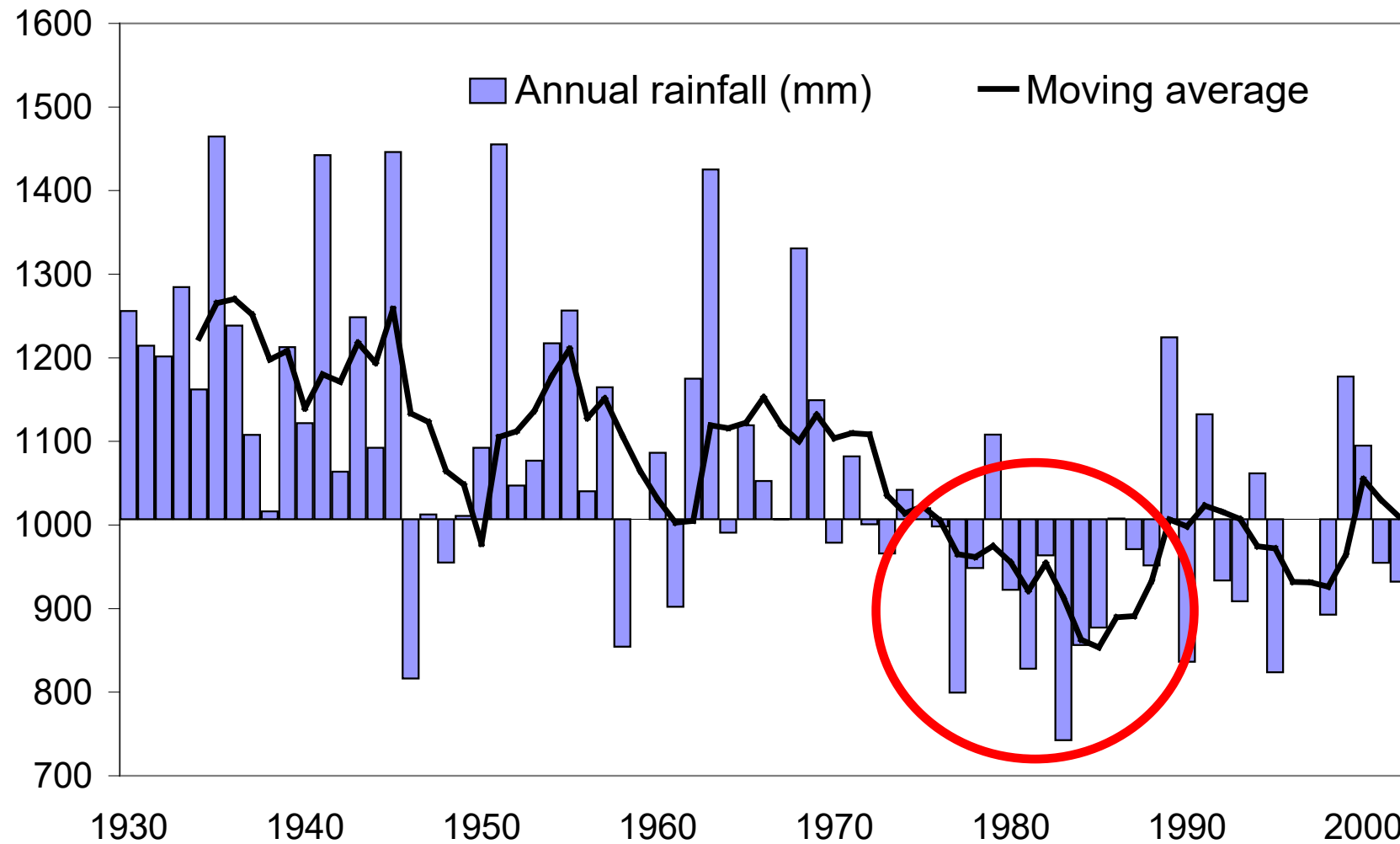
Cross-district analysis: Environmental push in Northern Ghana



- Findings:
- Out-migration propensities are higher in areas that experience more environmental scarcity.
- Strongest correlation with rainfall ($R = -0.67$).
- Together, rainfall, vegetation, crop yields and rural population density explain 44.2% of variation in out-migration propensities.

Longitudinal analysis: Does out-migration increase in times of increased environmental stress?

Focus here: rainfall. **Above average** rainfall from the 1930s to the early 1970s, **deterioration** in the mid 1970s and early 1980s (Sahelian droughts), partial **recovery** in the 1990s (source: 24 weather stations)

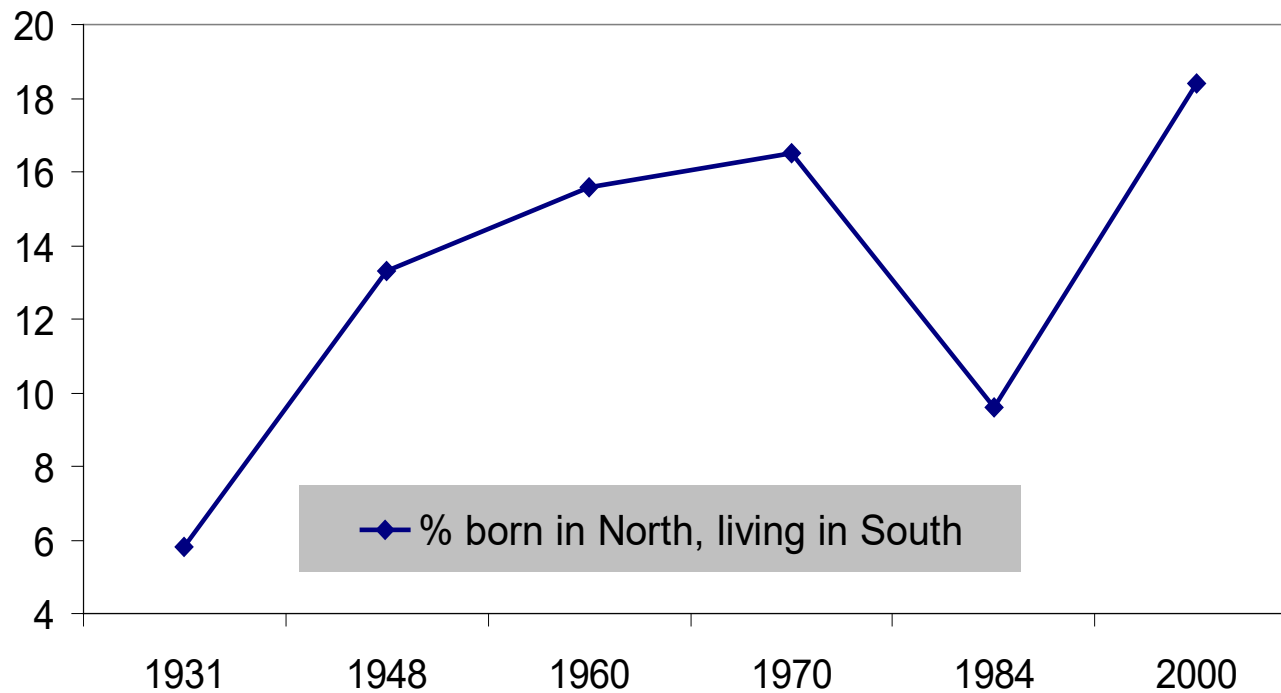


Unexpected finding:

migration reduced in period of worst environmental stress

What happened?

- 1970s and early 1980s: time of droughts and famine in N-Ghana.
- But also: time of political turmoil, economic crisis, unemployment and high food prices in the South.
- Southern Ghana temporarily unattractive for migrants.
- Political and economic factors weighed heavier than the environmental ones.
- No means to migrate?



Source: population census reports 1931, 1948, 1960, 1970, 1984, 2000

Conclusion on environmental causes of migration from Northern Ghana

- Environment matters
- Multi-causality: Interplay of environmental and other factors
- Structural scarcity rather than degradation or disaster
- Mixed findings on role of climate
- Migration not a 'last resort', rather adaptation and part of larger strategy to reduce pressure on resources and benefit from better opportunities in the South
- Northern Ghana is not a 'hotspot', but represents many areas where livelihoods are under pressure and where migration is one of the responses



Policy considerations

- Objectives should be (1) to avoid *forced* migration and (2) to facilitate positive impacts of voluntary migration
- Policies must contribute to livelihood sustainability and well-being irrespective of whether predictions of climate change materialize
- Policy should make livelihoods less dependent on rainfall, both within agriculture and by promoting non-farm activities
- Environmental policy to combat erosion, land degradation and deforestation, but respecting the interests of local farmers



Thank you!!

Contact: geest@ehs.unu.edu

A F R I C A N D Y N A M I C S



***Digging Deeper:
Inside Africa's
Agricultural, Food and
Nutrition Dynamics***

Edited by *Akinginka Akinyoade,
Wijnand Klaver,
Sebastiaan Soeters
and Dick Foeken*

BRILL



Chapter:

Van der Geest, K. & Warner, K. (2014).
Loss and damage from droughts and
floods in rural Africa.

Climate impacts as the starting point

- Impacts of climate change beyond adaptation
- When coping and adaptation is not enough

	Adopted measures (%)	Relied on other income (%)	Relied on aid (%)	Sold assets (%)	Relied on social network (%)	Household or members migrated (%)
Burkina Faso	79	33	51	79	29	41
Ethiopia	98	58	76	42	50	18
Gambia	93	69	48	55	47	25
Kenya	93	36	76	19	35	59
Mozambique	93	67	45	34	31	12
Median	93	58	51	42	35	25

