

Presentation to the United Nations Expert Group Meeting on Population  
Distribution and International Migration in the 21st Century

## Four schools

- Resource scarcity
- Technological optimism
- Political ecology
- Institutionalists





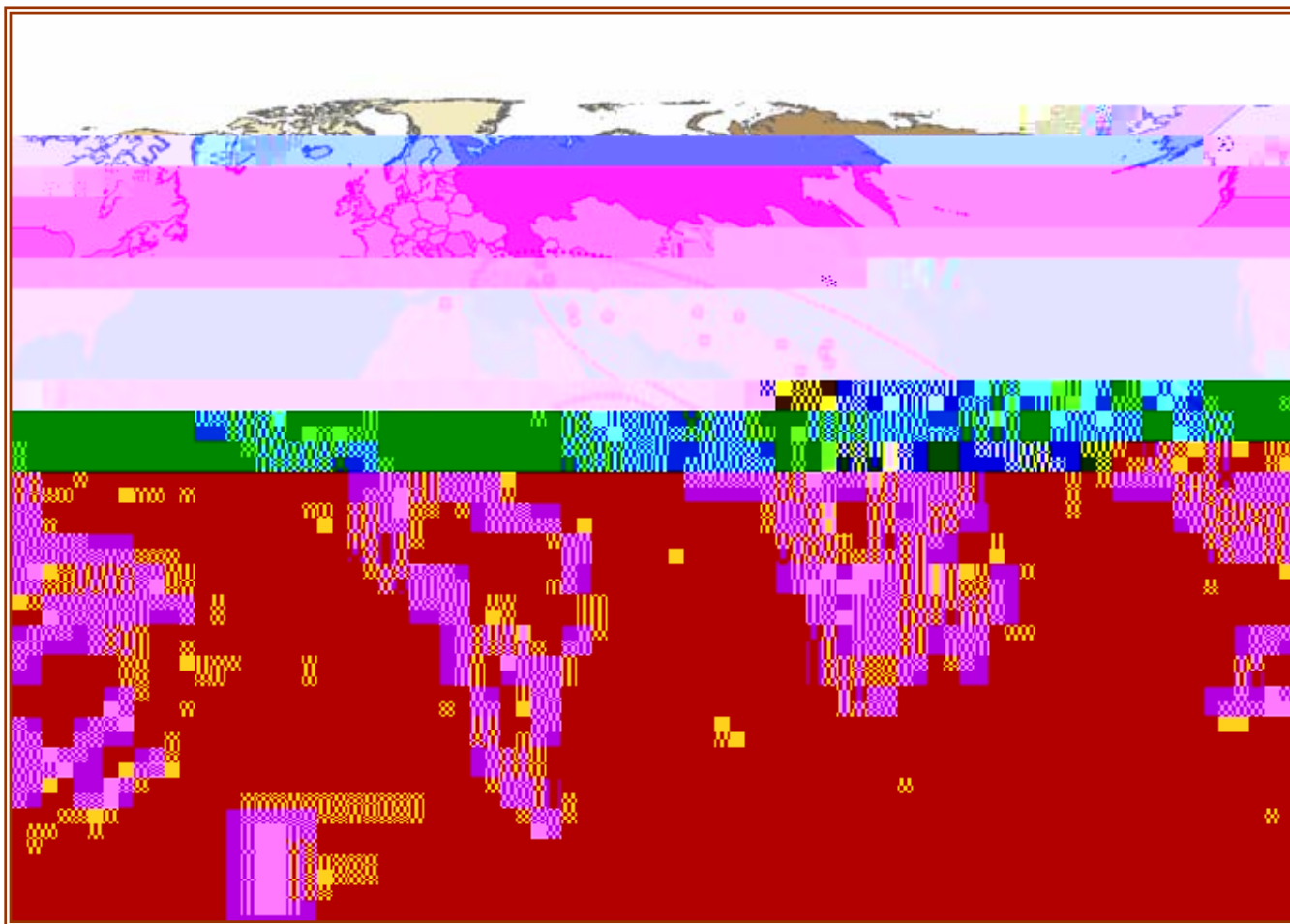


- Physical changes:
  - Resource depletion (water, land)
  - Sea-level rise
  - Increased severity, frequency of natural hazards
- Conflict mechanisms:
  - Local resource conflicts
  - Migration

- Environmental refugees: contentious
  - Stable stock: 20-25 million
- 200 million climate refugees by 2050?
  - Vulnerability, coping strategies
  - Pace
  - Destination
- Significance
  - Rural-urban migration 2005-2015: 250-310 million



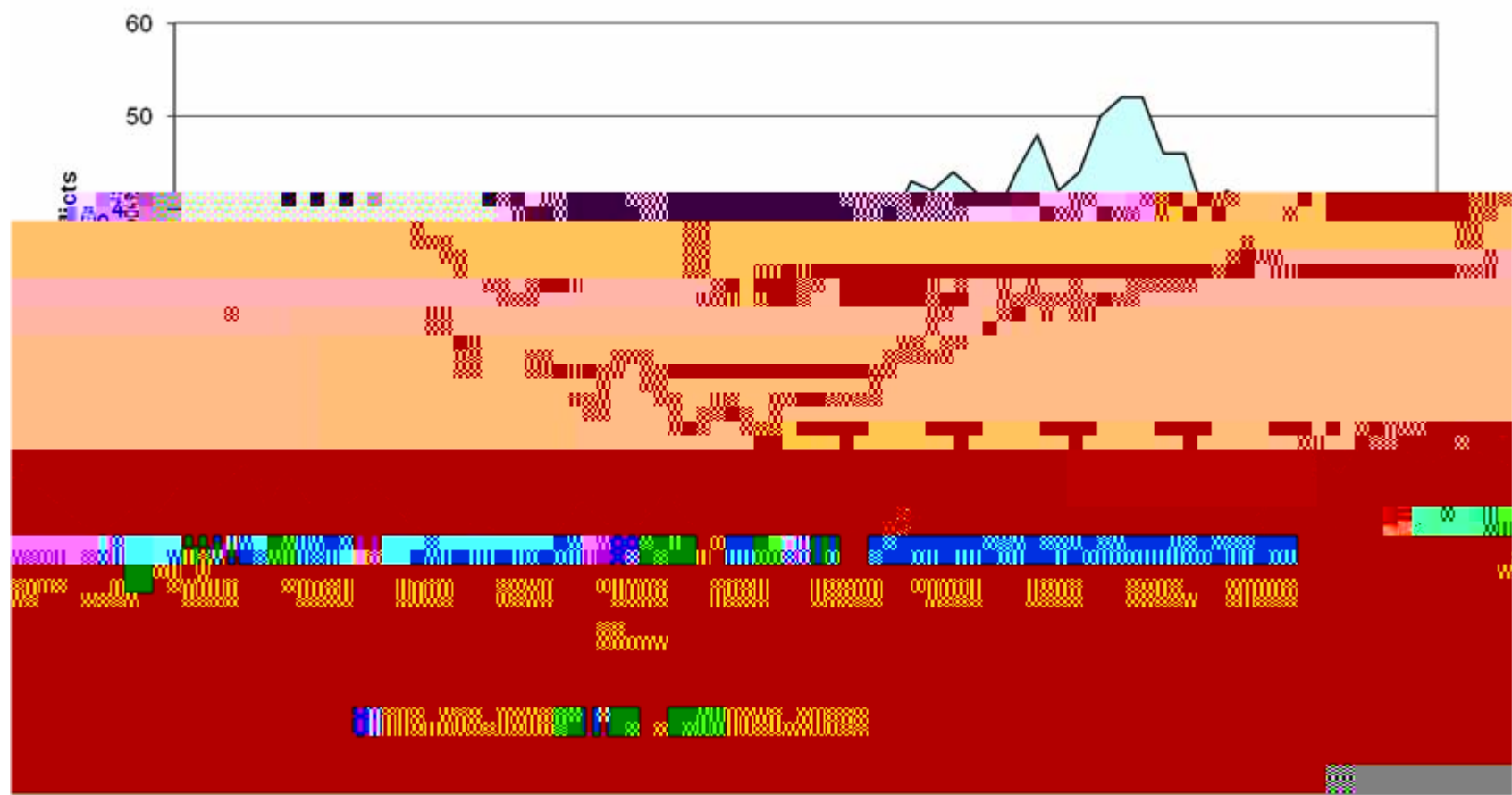
# The location of armed conflicts in 2006



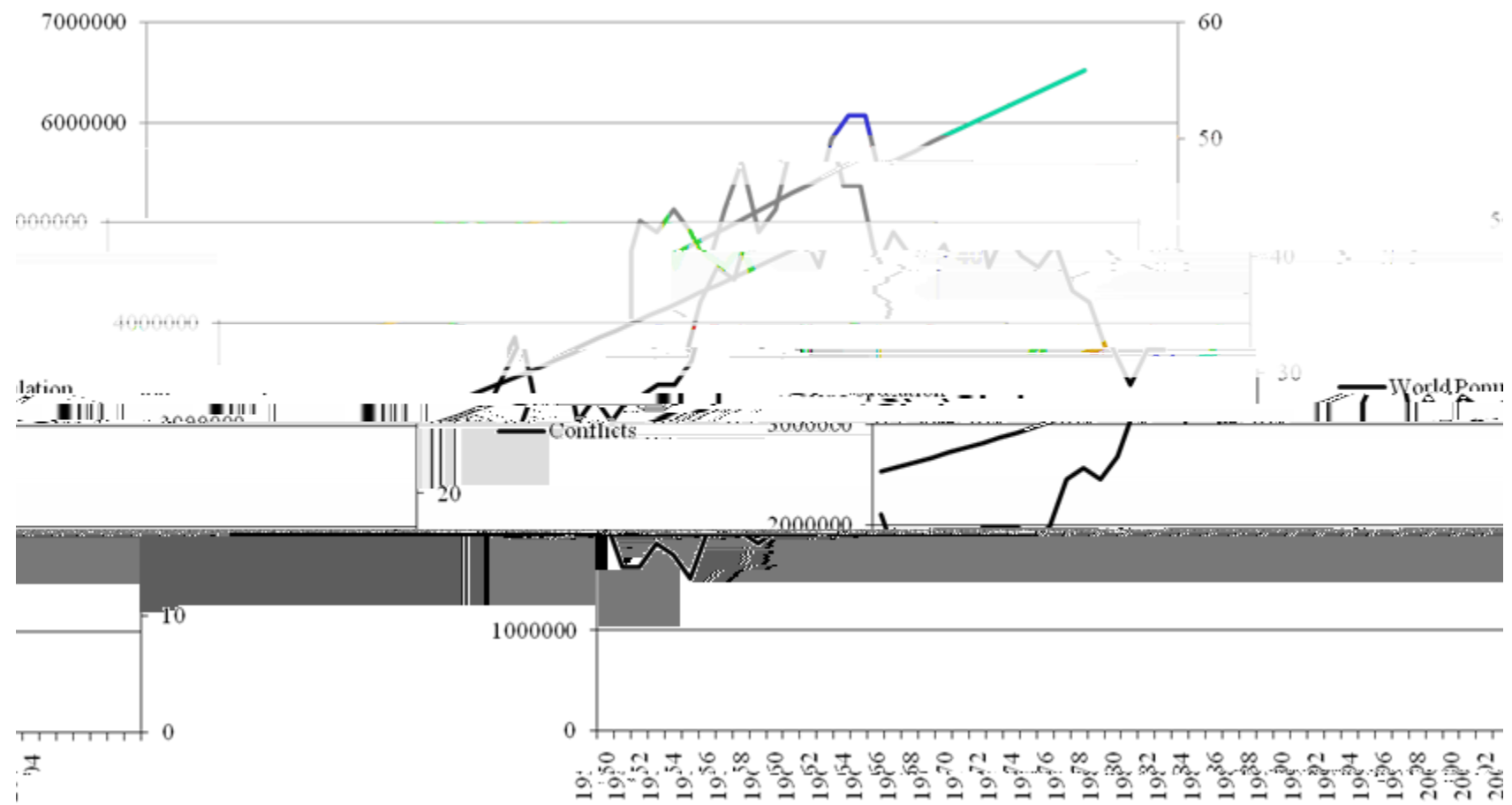
Source: Harbom & Wallersteen, 2007. Map produced by Halvard Buhaug.



# Armed conflicts 1946-2006

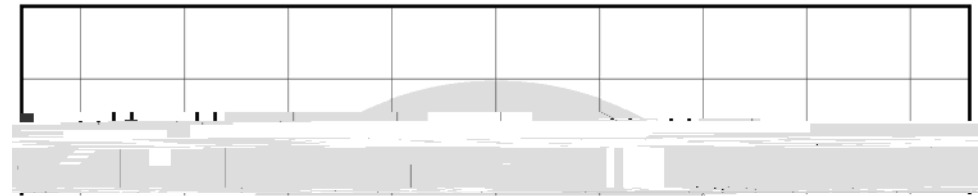


# World population and conflicts



	<b>Basic Model</b>	<b>Expanded Model</b>	<b>Post-Cold War</b>
<b>Population growth</b>	Not significant	Not significant	Not significant
<b>Population</b>			

- Global coverage
- Time-period 1990-2004
- IPCC scenarios:
  - Population growth and density
  - Water scarcity
  - Soil degradation

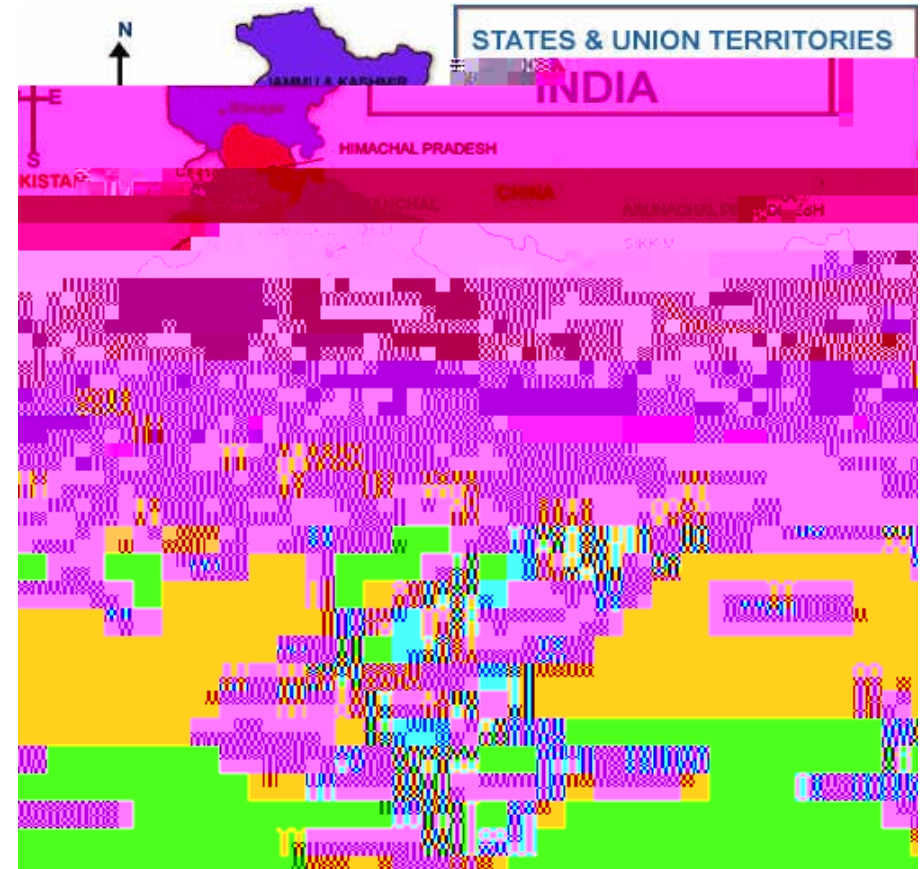


Raleigh, Clionadh, & Henrik Urdal, 2007. 'Climate Change, Environmental Degradation and Armed Conflict', *Political Geography* 26(6): 674-694.

	<b>High Income</b>	<b>Low Income</b>
<b>Low degradation</b>	Higher risk	Lower risk
<b>Medium degradation</b>	Higher risk	Not significant
<b>Very high degradation</b>	Higher risk	Not significant
<b>Water scarcity</b>	Higher risk	Higher risk (weak)
<b>Population density</b>	Higher risk	Higher risk
<b>Population growth</b>	Higher risk	Higher risk
<b>Pop growth *density</b>	Not significant	Higher risk
<b>Pop growth *water scarcity</b>	Not significant	Higher risk (weak)
<b>Pop growth *degradation</b>	Not significant	Not significant
<b>Pop growth *water scarcity * degradation</b>	Not significant	Not significant

Raleigh, Clionadh, & Henrik Urdal, 2007. 'Climate Change, Environmental Degradation and Armed Conflict', *Political Geography* 26(6): 674-694.

- State-level analysis
- Time-period 1956-2002
- 3 measures of violence:
  - Armed conflict
  - Violent political events
  - Hindu-Muslim riots



	<b>Armed conflict</b>	<b>Political violence</b>	<b>Riots</b>
<b>Rural pop growth</b>	Not significant	Not significant	Not significant
<b>Rural pop density</b>	Higher risk	Not significant	Not significant
<b>Rural growth *density</b>	Not significant	Higher risk	Not significant
<b>Urban growth</b>	Lower risk	Not significant	Not significant
<b>Rural inequality</b>	Not significant	Not significant	Not significant
<b>Agricultural yield</b>	Not significant	Higher risk if high density	Not significant
<b>Decline in agricultural wages</b>	Higher risk (long-term)	Not significant	Not significant

Urdal, Henrik, 2008. 'Population, Resources and Political Violence: A Sub-National Study of India 1956-2002', *Journal of Conflict Resolution*, in press.

## Preliminary conclusions

- Security is not a rationale for reducing global population growth
- Local effects more likely due to:
  - Local resource management failure
  - Adaptation failure
- Climate change and security: desperate need for solid research