

THE WORKING GROUP II

CONTRIBUTION TO THE IPCC'S
FIFTH ASSESSMENT REPORT:

Human Security and Climate Change

Robin Leichenko

Department of Geography

Rutgers University, USA

Human Security in the IPCC

“a condition that exists when the vital core of human lives is protected, and when people have the freedom and capacity to live with dignity”

*WG2 considered many dimensions of human security: Food, **Livelihoods**, **Poverty**, Culture, Health, **Migration**, **Conflict** (Chapters 7, 11, **12**, **13**, 19)*

Climate change is a “threat multiplier” for many factors that contribute to human insecurity

Livelihoods and Poverty

Approved IPCC Summary for Policymakers:

Climate-related hazards exacerbate other stressors, often with negative outcomes for livelihoods, especially for people living in poverty.

Climate-related impacts are projected to slow down economic growth, make poverty reduction more difficult, further erode food security, and prolong existing and create new poverty traps, the latter particularly in urban areas and emerging hotspots of hunger.

Impacts of Climate Change on Poverty

- Climate change is an *additional burden* to rural and urban people living in poverty:
 - Direct impacts on the poor: loss of crops, destroyed homes, food insecurity, loss of sense of place
 - Indirect impacts on poor: increased food prices
- Climate change can push people into poverty traps

Impacts of Climate Change on Poverty

- Climate change will create **new poor** between now and 2100 in low-, medium- and high-income countries.
- The majority of severe impacts are projected for urban areas and some rural regions in sub-Saharan Africa and Southeast Asia.

Photo Credit: Ana Mahecha, Dept of Geography, Rutgers

Migration

Approved IPCC Summary for Policymakers:

Climate change over the 21st century is projected to increase displacement of people

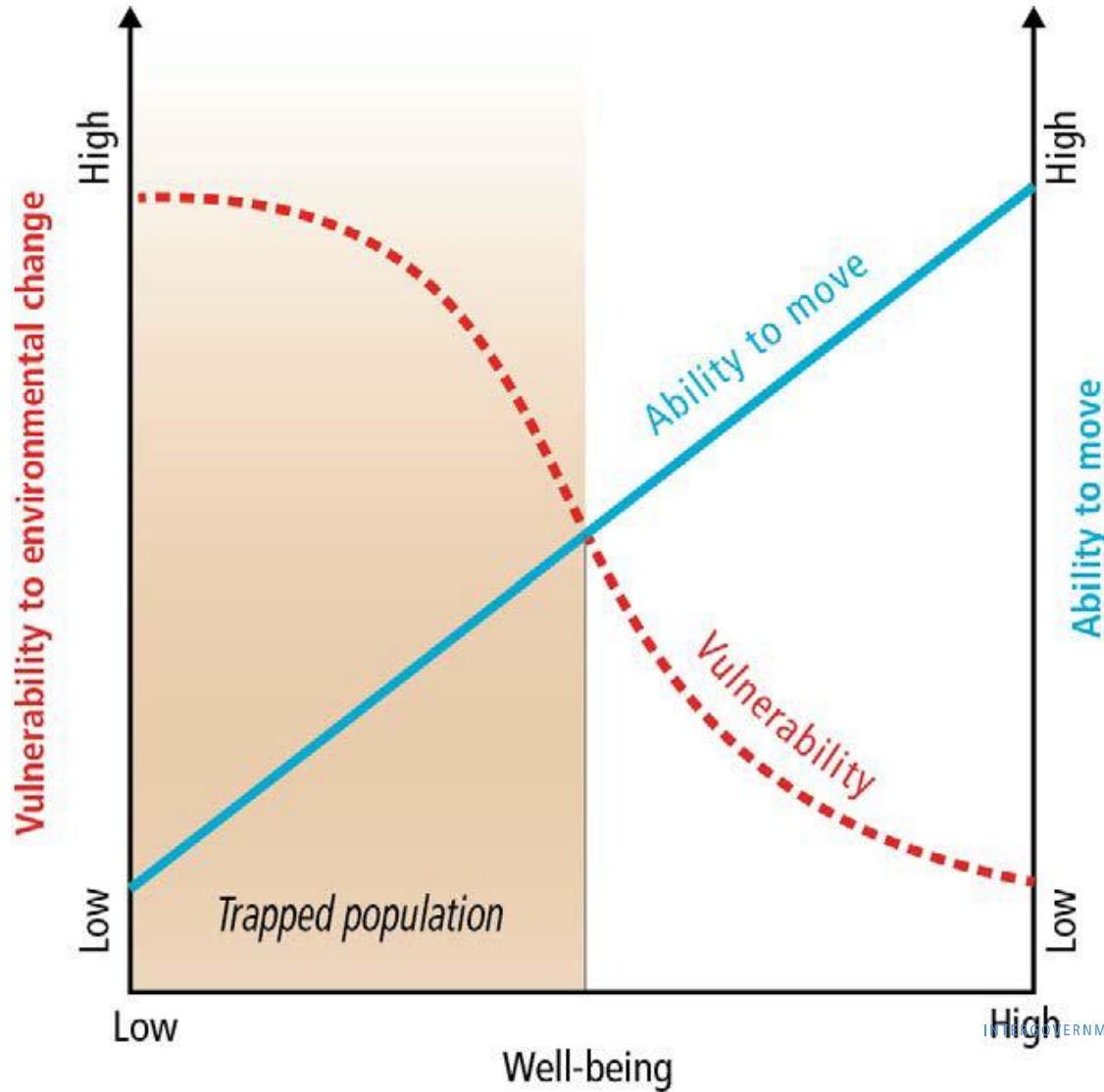
Photo Credit: <http://veaches.net/katrina/katrina-traffic-sm.jpg>

Impacts of Climate Change on Migration

- Climate change will have significant impacts on forms of migration that compromise human security:
 - Extreme climate events have led to significant population displacement (most displaced people return and rebuild as soon as possible)
 - Long term environmental changes such as sea level rise, coastal erosion, and loss of agricultural productivity will have a significant impact on future migration flows

Photo Credit: U.S. Department of Defense
<http://www.defense.gov/home/images/photos/2005-09/photoessays/pi20050901a14.jpg>

Populations that are most exposed have the least ability to migrate



Conflict and Human Security

Approved IPCC Summary for Policymakers:

Violent conflict increases vulnerability to climate change

Climate change can indirectly increase risks of violent conflicts in the form of civil war and inter-group violence by amplifying well-documented drivers of these conflicts such as poverty and economic shocks.

Photo Credit: USAID,

<http://www.usaid.gov/sites/default/files/nodeimage/walktowater.jpg>

Climate Change and National Security

Approved IPCC Summary for Policymakers:

The impacts of climate change on the critical infrastructure and territorial integrity of many states are expected to influence national security policies

Photo credit: Mike Brady, Dept of Geography, Rutgers

Peace-Building and Adaptation

- Natural resource management can help to build peace to avoid conflicts and broker peace in conflict situations.
- There is strong evidence of formal cooperation among river basin riparian states after World War II (and no evidence of “water wars”).
- Transboundary water cooperation can form a basis for long term cooperation on a range of contentious issues

Photo source: Charlie Neuman,

<http://www.utsandiego.com/news/2014/Mar/27/colorado-river-delta-pulse/>