The Role of Ecology in Security Politics

Climate Change, Conflict, and Security

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Structure of Presentation

I. Environmental Consequences of Climate Change

II. Climate Change and Security: The Debate

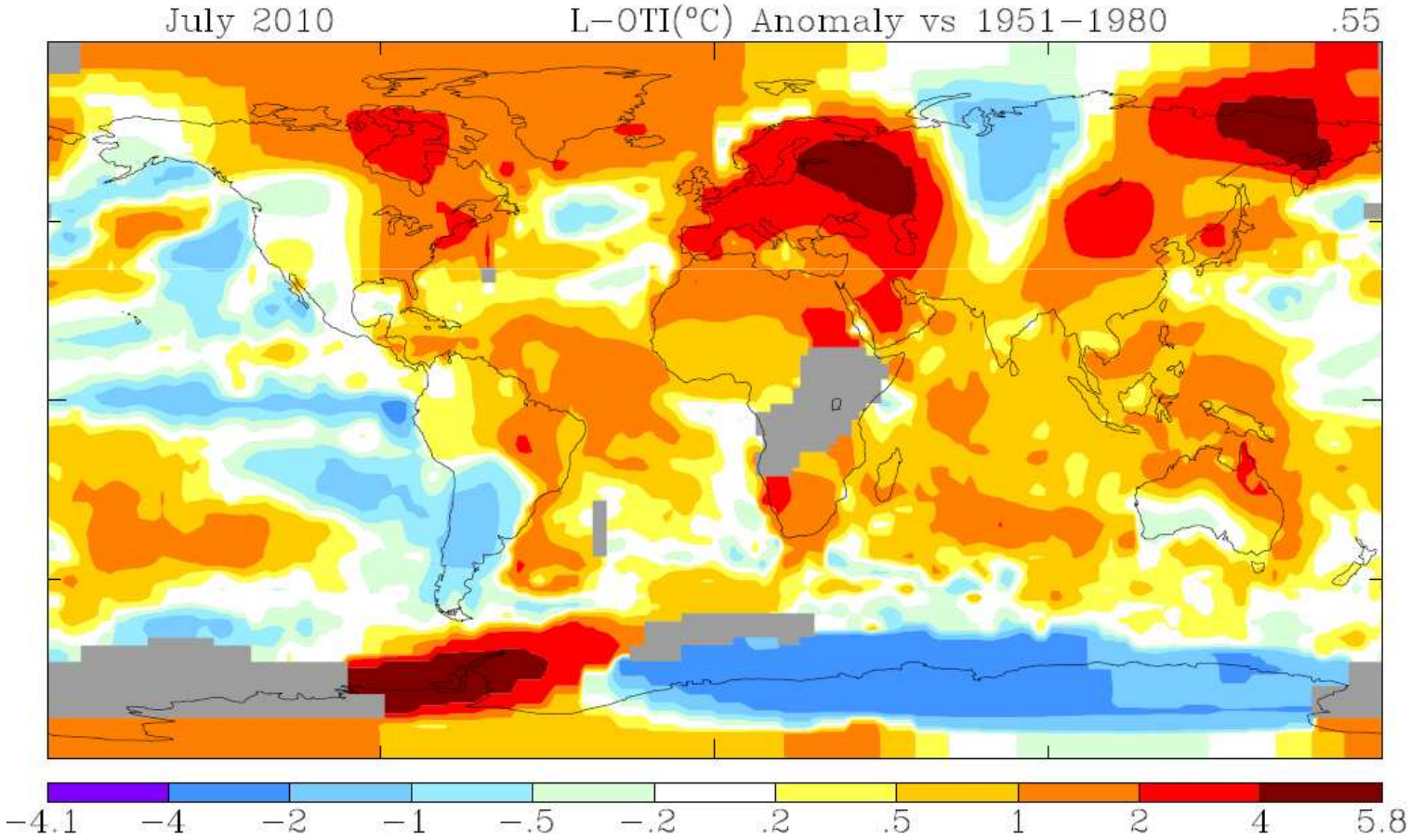
III. Identification of Hotspots

IV. What Must Be Done?

V. State of the Debate in Germany, the EU and NATO

VI. Concluding Remarks

I. Global Warming…



… and its consequences

Pakistan, Summer 2010

Russia, Summer 2010

China, Summer 2010

Germany, Summer 2010

IPCC – Climate Change 2007 Report

Global warming is real and indeed global (with greater temperature increases at higher northern latitudes) and it has accelerated in the past 50 years.

- Less cold days & nights and frost, more hot days & nights
- Higher frequency of heat waves
- Higher frequency of heavy precipitation events
- Rising sea levels and higher frequency of incidences of extreme high sea level
- Typhoons and hurricanes will become more intense
- Frequency of droughts and desertification will increase

II. Climate Change and Security: The Debate

- Nobel Prize Committee (2007)

Extensive climate changes *may* alter and threaten the living conditions of much of mankind. They *may* induce large-scale migration and lead to greater competition for the earth's resources. Such changes will place particularly heavy burdens on the world's most vulnerable countries. There *may* be increased danger of violent conflicts and wars, within and between states. (my emphasis)

- Thomas Homer-Dixon (2007)

Climate stress *may* well represent a challenge to international security just as dangerous – and more intractable – than the arms race between the United States and the Soviet Union during the Cold War… (my emphasis)

But…

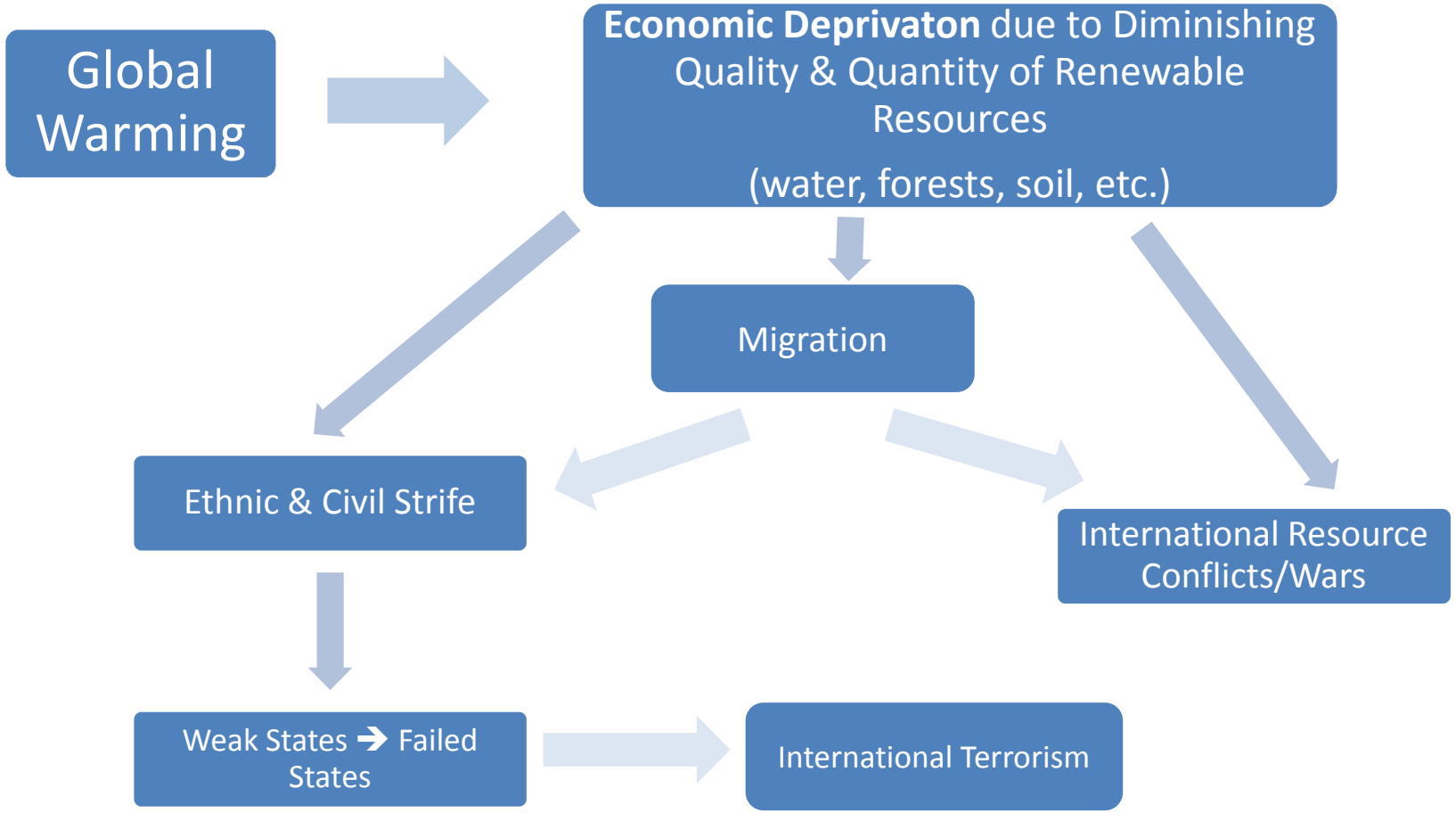
- Idean Salehyan (2008)

Rather, the *effect* of climate change on armed conflict is *contingent* on a number of political and social variables, which, if ignored by analysts, can lead to poor predictions about when and where conflicts is likely. (my emphasis)

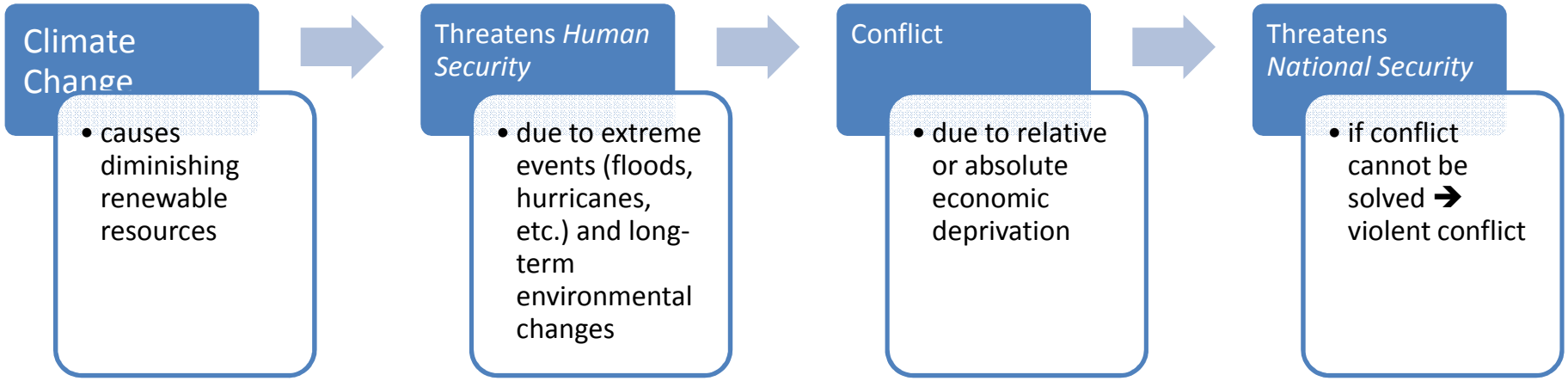
- Jon Barnett and W. Neil Adger (2007)

Through direct effects on livelihoods and indirect effects on state functions, climate change may in certain circumstances increase the risk of violent conflict. Yet these connections between climate change, human security, the state and violent conflict are *not empirically proven*. (my emphasis)

The Simplistic-Pessmistic Scenario



In other words…



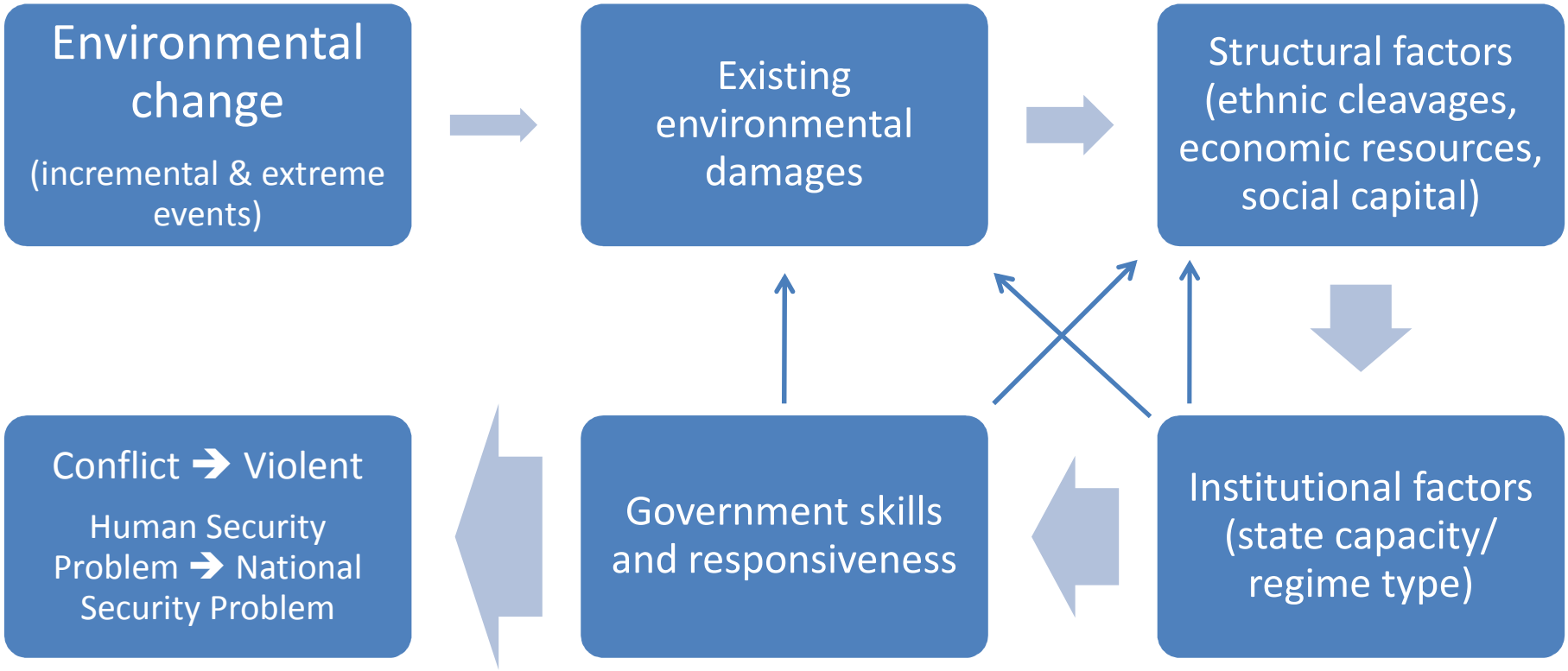
However,

The effects of climate change are filtered through and are contingent on several factors:

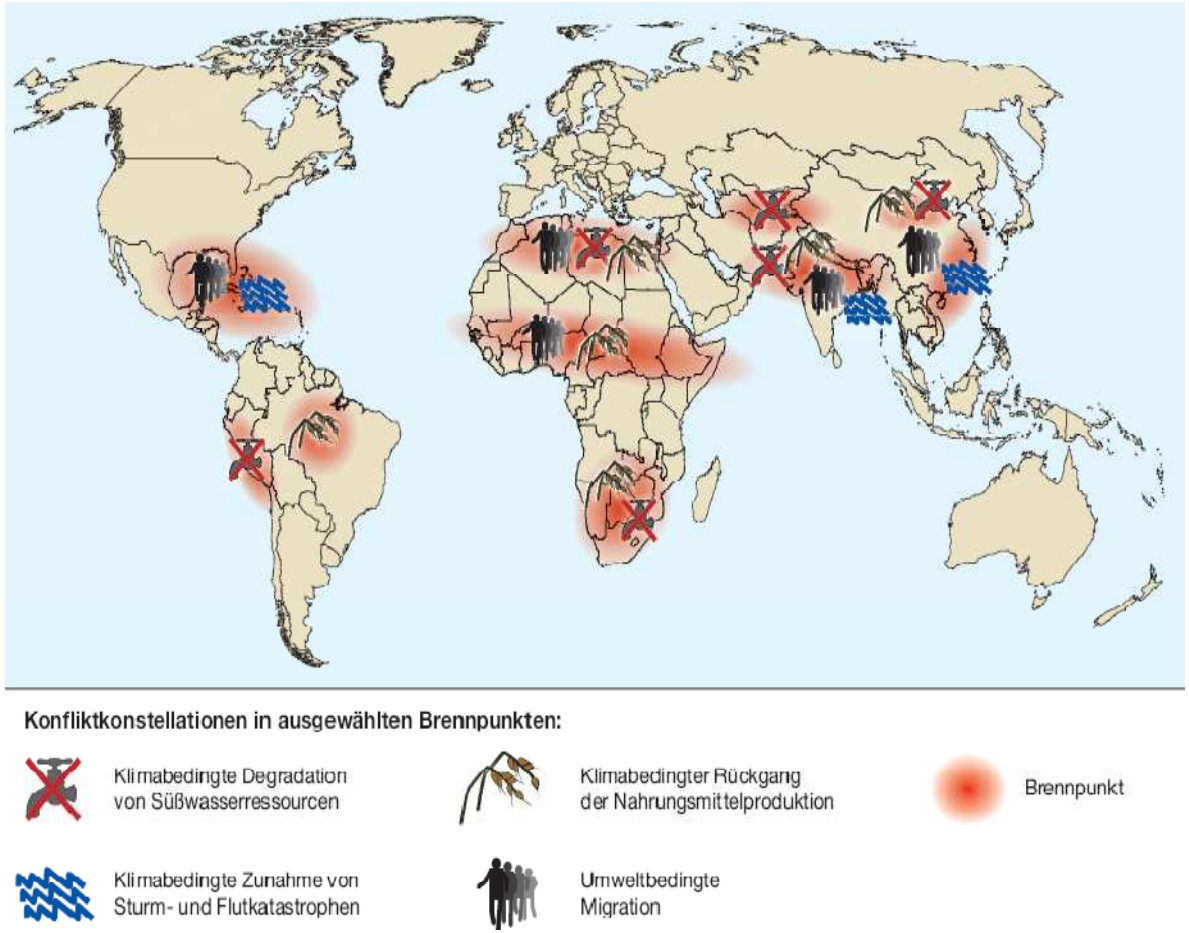
1. Extent and speed of environmental changes (e.g., faster is worse)
2. Preexisting human-made environmental degradation (e.g., deforestation)
3. Dependency on renewable resources (agricultural vs. postindustrial society)
4. Overlap of resource scarcity with existing conflict patterns (e.g., ethnic divisions)

5. Adaptive social, economic, and technological capacity (economic resources, social & human capital, culture)
6. State capacity to:
   a) Buffer impact of climate change (e.g., making societies less dependable on renewable resources and induce more environmental-friendly behavior)
   b) and manage acute crises
7. International support to strengthen state capacity
8. Government responses (can/will gov. take advantage of 5.-7. or not?)

Environmental change as trigger and multiplier



III. Identification of Hotspots



Source: German Advisory Council on Global Change

Geographic Overview

- Africa: by 2020, increased water stress ➔ up to 50% decline in agricultural production
- Asia: by 2050, sharply declining fresh water availability, esp. in large river basins; displacement of millions of people from coastal areas
- Latin America: by 2050, desertification will cause crop yields and livestock productivity to decline with adverse consequences for food security.

Why the global South will hurt more than the North

- more severe climate-induced weather events (floods, typhoons, etc.)
- more preexisting environmental damage caused by humans (e.g., deforestation on hills, like in China)
- less adaptive capacity due to fewer economic and technological resources, human and social capital, etc.
- weak states and less responsive governments (e.g., because of corruption and lack of press freedom)
- preexisting and overlapping patterns of conflict (mostly, ethnic conflicts)

IV. What Must Be Done?

- Why the North should help the South
  - a matter of justice – North mainly responsible for global warming, but the South pays for it
  - the North‘s human and national security will ultimately be at stake (rise of international terrorism, mass migration from South to North, declining access to Southern markets)
- Basic Principle: threats to human security are best addressed by non-military means (e.g., development aid); threats to national security by military means

Strategic Model

1. Global Warming

2. Preexisting environmental degradation

3. Dependency on renewable resources
4. Overlap of resource scarcity with existing conflict patterns

<u>Mitigation</u>

1. Stop global warming (no more than 2° Celsius increase)

<u>Adaptation</u>

2. Repair environmental damages and prevent future ones
3. Make agriculture more efficient (better irrigation) and help to diversify economy
4. Address already existing conflict patterns

5. Lack of adaptive social, economic, and technological capacity

6. Lack of state capacity to cushion impact of climate change and manage acute crises

5. Train civil society to increase adaptive capacity; transfer of relevant technology

6. Increase state capacity (e.g., early warning system, military training) and rapid Western response

Possible role for NATO

- Increase of state – esp., military – capacity
  - train militaries to diffuse small-scale violent conflict (e.g., between rivaling ethnic groups) before they turn into ethnic wars
  - train and equip militaries to respond to climate-induced extreme events
  - provide logistical support to facilitate movement of aid to affected countries

V. State of the Debate

- Germany
  - Widespread acknowledgment of climate change as security threat

    (however, change in Foreign Ministry: Steinmeier vs. Westerwelle)
  - Strong advocate in EU and in IGOs for reduction of GHG emissions, energy efficiency and switch to renewable energy
  - Considered an „honest broker“ in global South
  - command of significant economic resources and technological know-how

- European Union
  - Path-breaking Solana paper (2008) clearly identifies climate change as risk to international security
  - 20/20/20/2020 – 20% reduction in GHG emissions, 20% share of renewable energy in overall energy use, 20% increase in energy efficiency
  - Biggest shortcoming: lack of coherent common foreign and security policy that is backed up by sufficient resources

- NATO

  - NATO Secretary General Anders Fogh Rasmussen (2009):

    "NATO's involvement in dealing with climate change can be summed up by three words: consultation, adaptation, and operation."

  - Consultation: "NATO as a clearing house for the security-related challenges of climate change."

  - Adaptation: reduction of GHG emissions and switch towards renewable fuels (following the lead of the US Air Force)

  - Operation: NATO as a "first responder" – "The Alliance has a wealth of experience in deploying capabilities with other nations and helping other international organizations develop their own expertise for dealing with disasters."

Concluding Remarks

- How climate change interacts with other variables to cause the emergence of threats to human and national security is still not entirely clear. More research is needed.
- Nevertheless, we cannot afford to let global warming increase at the current rate.
- The South needs the North to adapt to the consequences of climate change, and it is in the interest of the North to provide this aid.
- NATO‘s role is limited but crucial, especially in addressing climate-induced threats to national security.

Thank you for listening.

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