A Transatlantic Agenda on Climate Security?

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A Security Sector Consensus?

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CNA Report "National Security and the Threat of Climate Change"

1. Climate Change is a serious national security threat
2. Threat multiplier, particularly in the most fragile regions of the world
3. Will add to tensions even in stable regions
4. Climate change, energy security, and national security are related

Who is Saying This? Not Environmentalists

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Governments

- UN Security Council 2007
- US National Intelligence Estimate 2008
- European Council 2008
- NATO 2008 onwards
- Australian ONA 2005 onwards
- UK DCDC, MOD, FCO and National Security Strategy
- German Planners 2005
- China and India Planners?

Non-Governmental Organisations

- Centre for Naval Analysis
- CSIS-Brookings; Woodrow Wilson;
- RUSI, IISS; Chatham House
- German Global Trends Institute
- ICG; International Alert; Christian Aid; IISD

European Processes

- Climate Change was included in the EU Security Strategy 2003
- Climate Security Report from EU SGHR Solana to EU Council in March 2008
- European Commission Communication on an EU Arctic Strategy Nov 2008
- Case Studies (ME, Africa and Central Asia) and Road Map for implementation produced for European Council December 2008
- Climate Change highlighted in review of implementation of the EU Security Strategy December 2009

EU Security Strategy

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“ climate change is a "threat multiplier". Natural disasters, environmental degradation and competition for resources exacerbate conflict, especially in situations of poverty and population growth, with humanitarian, health, political and security consequences, including greater migration. Climate change can also lead to disputes over trade routes, maritime zones and resources previously inaccessible.”

EU SGHR Report on Implementation of the EU Security Strategy December 2008

Elements of the European Roadmap

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"The EU is well suited to taking forward the climate security agenda. Climate change represents a fundamental challenge, and should be in the mainstream of EU foreign and security policies and institutions."

- Recommendations for action in Middle East, Africa and Central Asia
- Climate security in all bilateral Planners discussions and Ministerial dialogues
- New analysis of the impact of climate change on EU energy security
- Second round of geographical analysis in policy sensitive areas including:
  - Afghanistan,
  - South Asia
  - the Caribbean
- Need to develop new tools and methods in risk analysis
- **Need for early engagement with US on this issue in 2009**

Does Europe Matter?

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- Traditionally Member States run security policy and the EU focuses on economic issues. MS continue to be important – UK and Germany are leaders on Climate Security thinking; FR less so.

- Coordination of foreign and security policy is growing – Lisbon treaty in 2009 improves this; EU FM & EU External Action Service.

- EU Battlegroup and humanitarian capability is growing; 20 EU missions to date with broad geographic scope.

- EU is a powerful actor in Northern and Southern Africa; weaker in Middle East, Central Asia and South Asia.

- EU is good at long term structural engagement deploying multiple policy tools – trade, aid, diplomatic agreements – particularly through Neighbourhood Agreements

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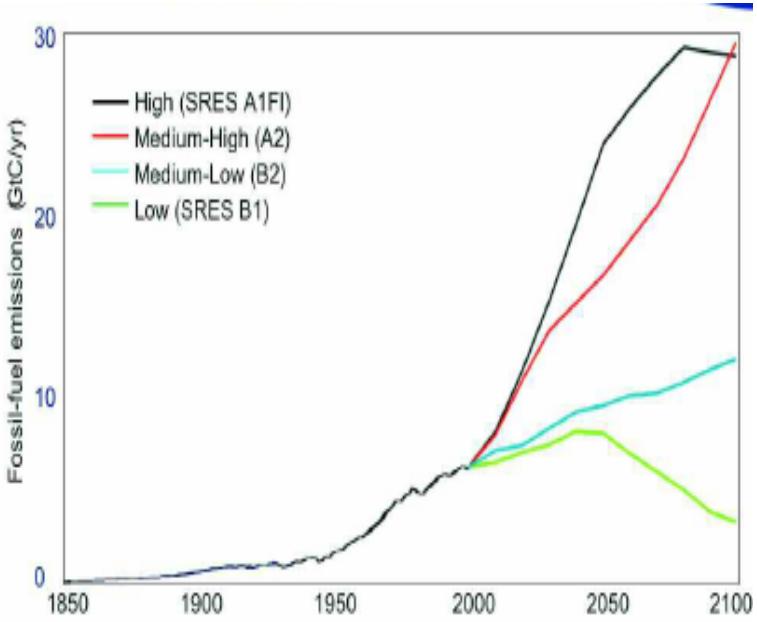
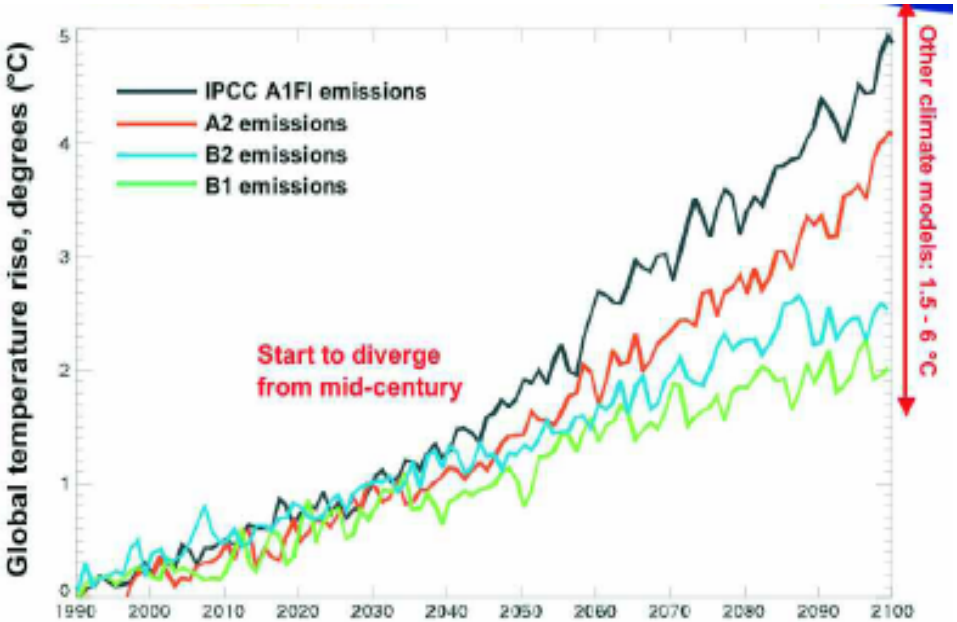
- Climate change and Security: A Growing Consensus?
- Understanding Policy Implications and Knowing Our Unknowns;
- Climate Security at Copenhagen
- Geostrategic Choices and Responses
- Preventing Climate Driven Instability
- A Transatlantic Climate Security Agenda for 2009

Large scale adaptation is needed for at least 40 years – even with the most aggressive mitigation measures

Emission Scenarios Diverge Radically …



But impacts only begin to slow after 2040



The low emissions scenario is consistent with a 450ppm (CO2 eq) atmospheric concentration

This effort would give a 50% chance of limiting temperature rise to 2C, and requires global emissions to peak by 2020

Source: Hadley Centre (2006)

The past will not be a guide to the future

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- Climate change will change the broad strategic context for security policy on many levels. These changes will not fit neatly into patterns of past relations or threats – many will be new

- Climate change will change strategic interests, alliances, borders, threats, economic relationships, comparative advantages, the nature of international cooperation and the continued legitimacy of the UN.

- Climate change geopolitics will link old problems in new ways and require a more holistic approach to understanding threat assessment.

- Security policy will need to move to a preventive, risk based stance - not a reactive approach; there is no time to just learn by doing.

- Will require greater investment in information systems, preventive capacity/capability, and comprehensive operations.

Decision Support for Climate Security

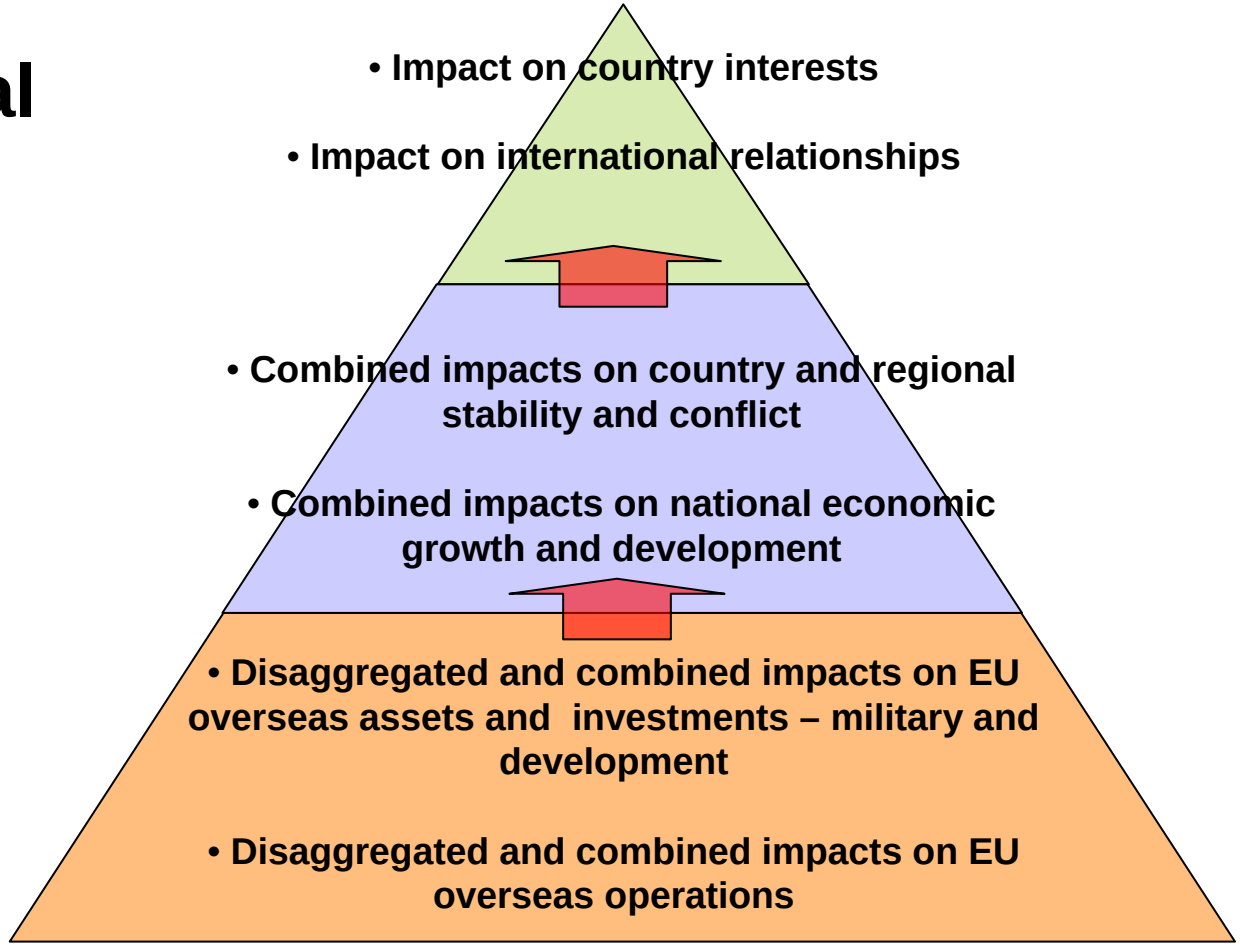
- Information is useful in so much that it allows choices and decisions to be made
- Key decisions exist on relative interests, alliances, investment in capability and priorities for action
- The scale and scope of information needed for **effective decision support** at each level differs
- Climate change projections are at least as reliable as other information used in medium/long term security planning
- Climate security research agenda needs to be driven by practical decision making needs

Levels of Security Analysis

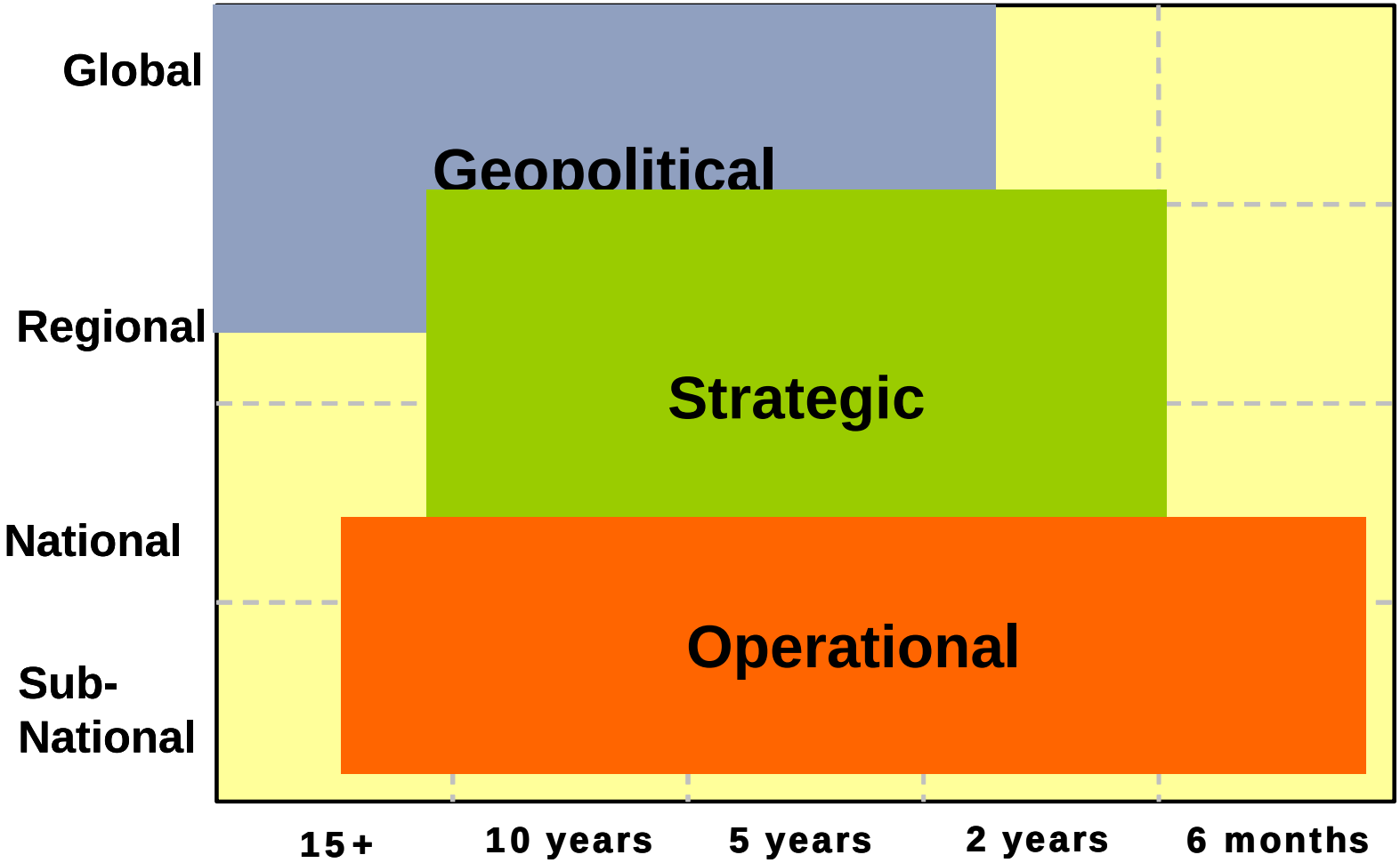
Geo-political

Strategic Impacts

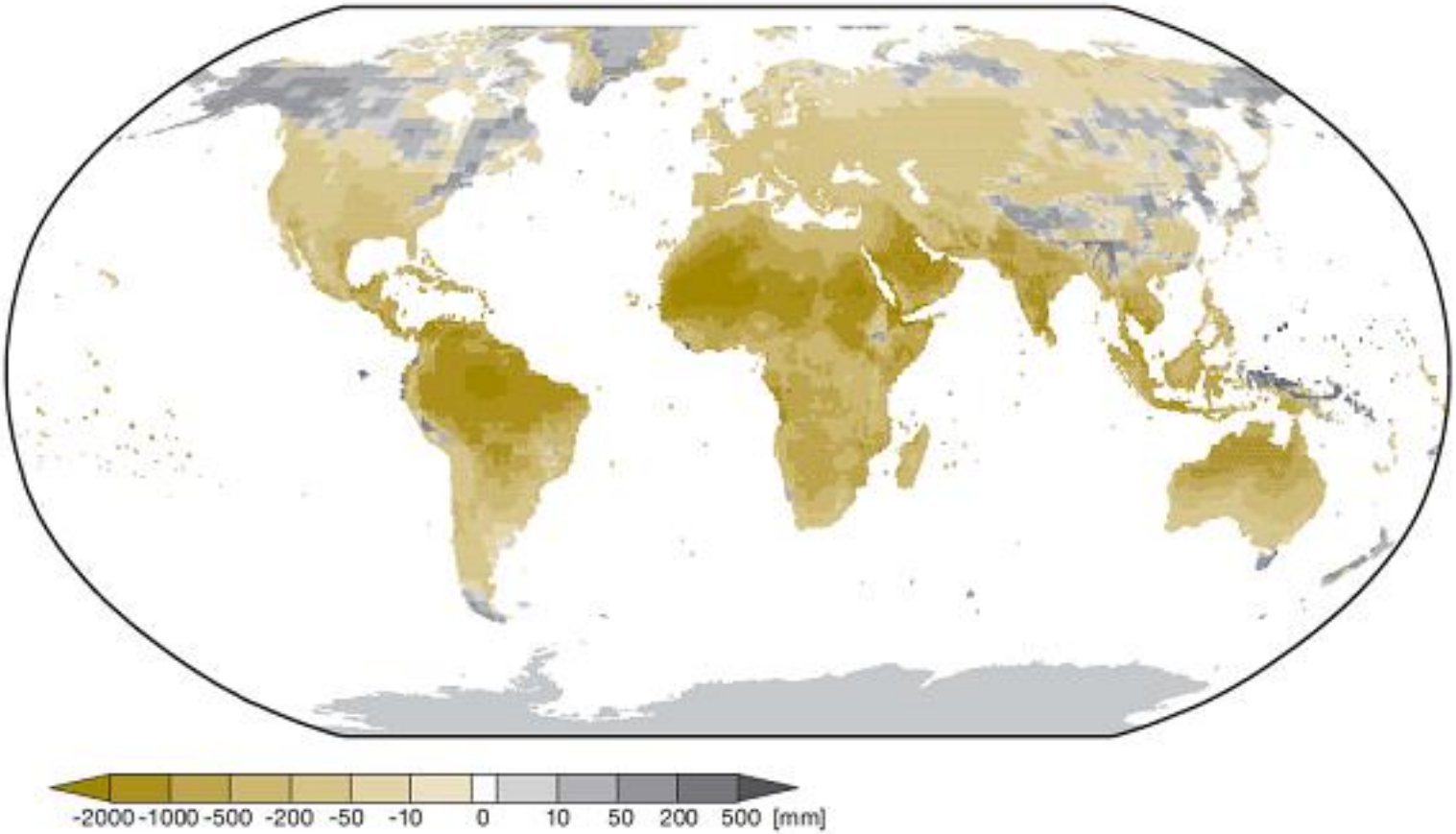
Operational



Analytical Scope for Decision Support



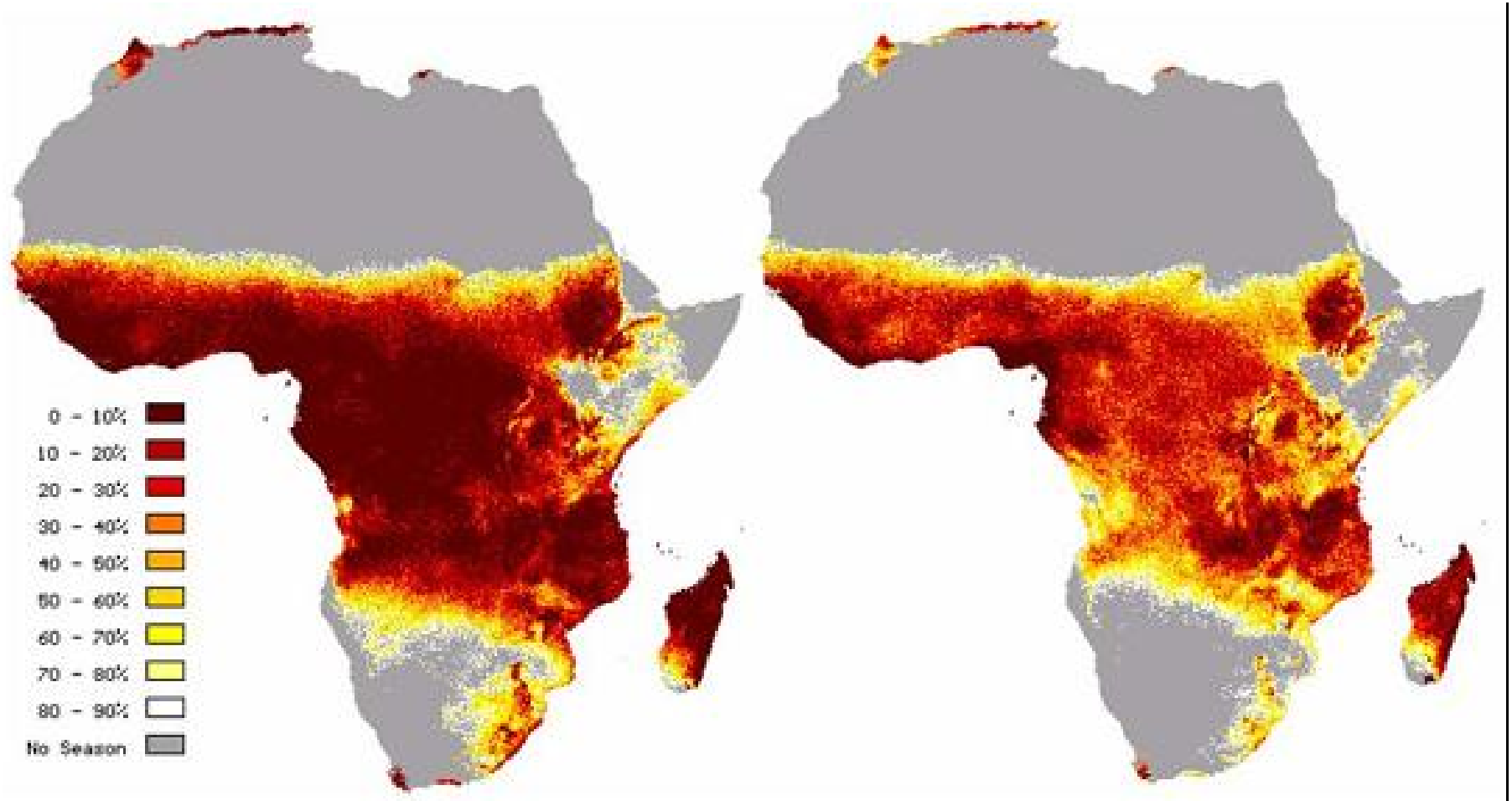
Global Rainfall Changes 2040-70



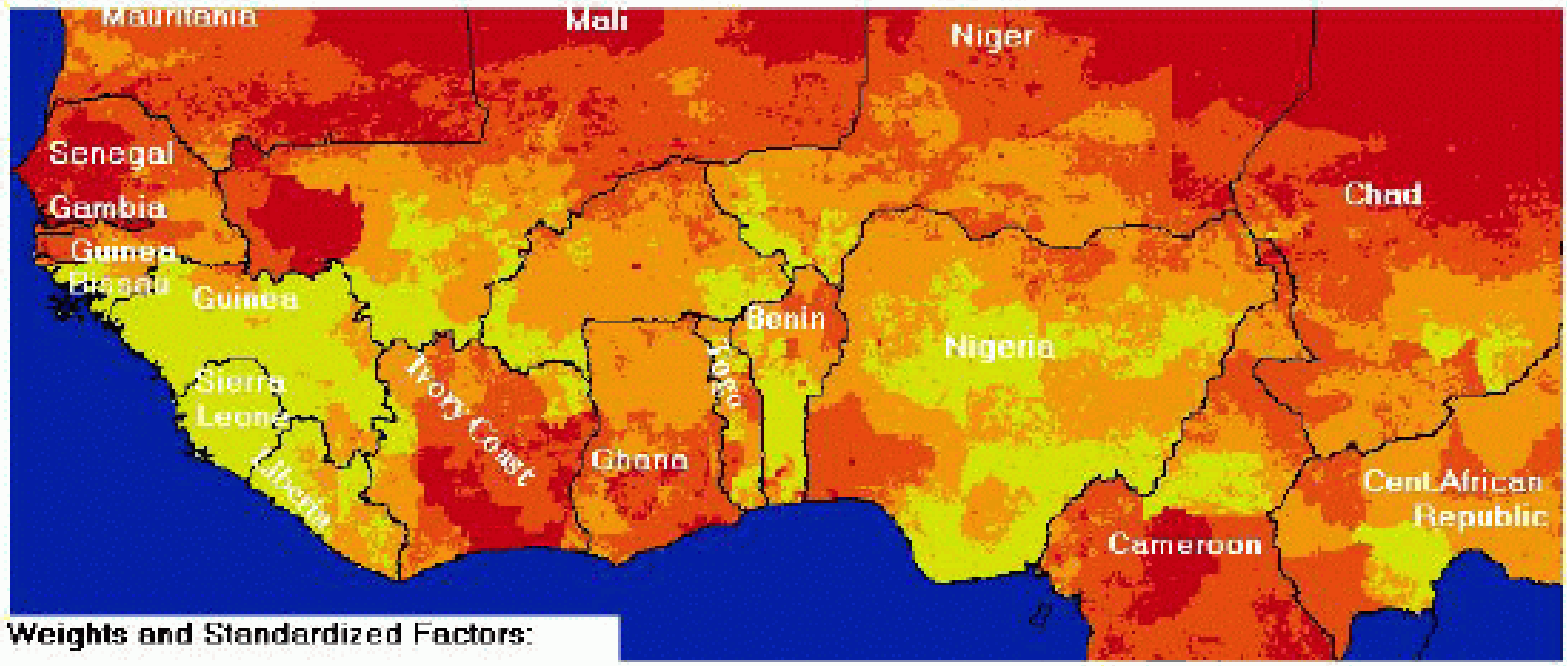
Source: WGBU (2007)

Increased Failure of Growing Season

2000 2050



Mapping Economic Vulnerability



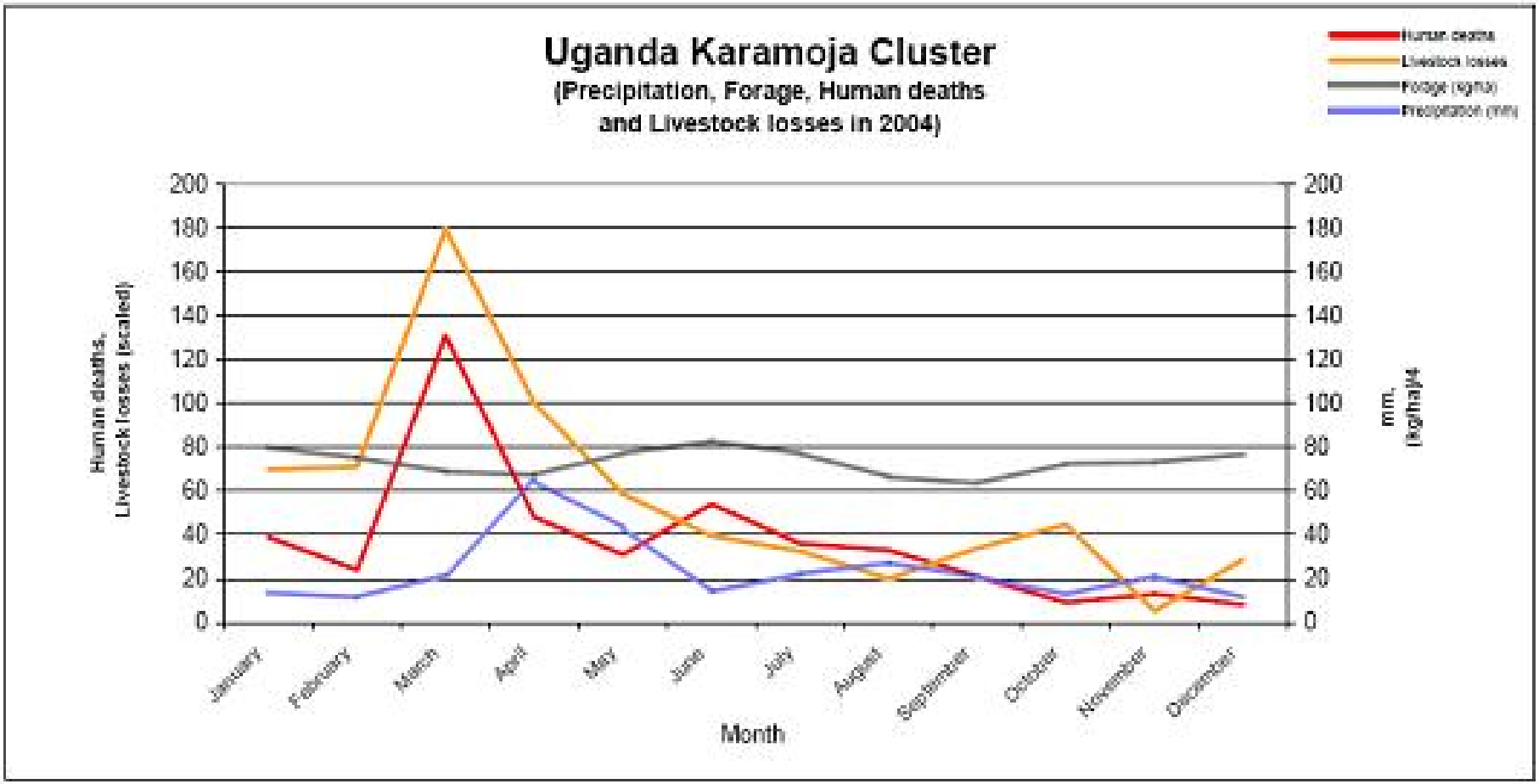
Weights and Standardized Factors:

0.14 Precipitation
0.14 Coeff. of Variability of NDVI
0.14 Supply as a Percentage of Demand
0.14 Market Accessibility
0.14 Percentage Cash Crop
0.14 Population Density
0.14 Percentage Crop Area

Low Vulnerability
Med Vulnerability
High Vulnerability
Very High Vulnerability

Multi-Attribute Analysis of Vulnerability 2

Detailed understanding of resource conflicts



Source: Bond and Meier (2005)

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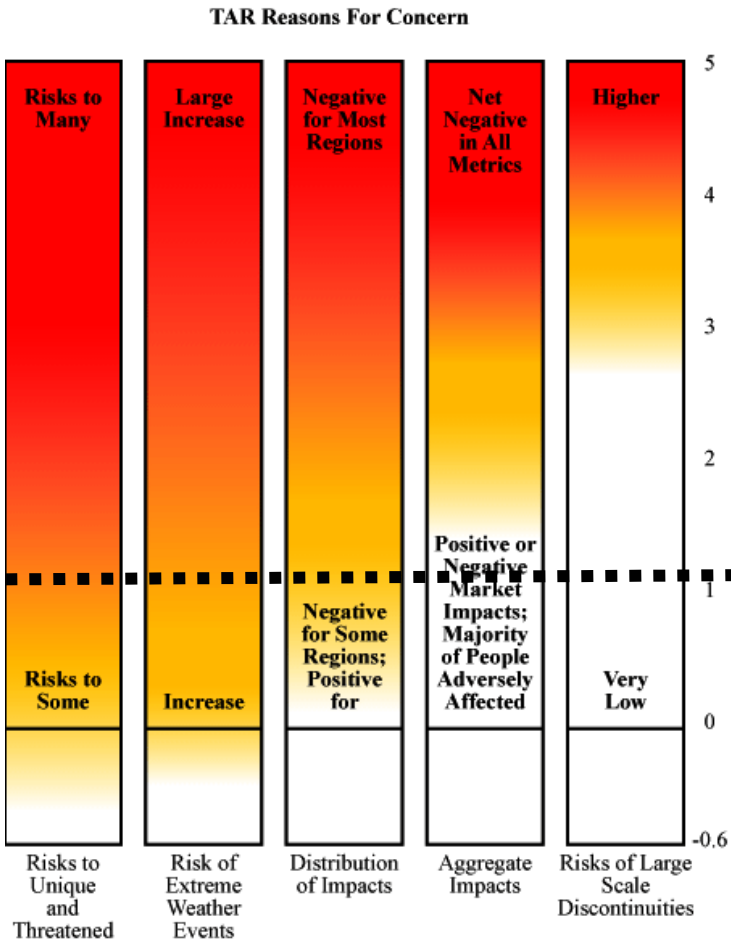
Climate Change: high costs but not an existential threat?

- Stern Review estimates cost of climate change to be between 5-20% of global GDP from 2050
- World Bank estimates that 40% of development aid investment is at risk from climate change
- Humanitarian costs could rise by 200% by 2015
- Weather disasters could cost as much as a trillion dollars in a single year by 2040

Where is the Risk Management Response to increasing Impact Estimates?



Source: Smith et al., 2007 Dangerous Climate Change: An Update of the IPCC Reasons for Concern

No Credible Security Guarantee under a Worst Case Scenarios

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- Current climate change politics and policy does not adequately reflect credible worst case scenarios.
- Global emissions must peak by 2015-20 (perhaps earlier) to give 2C scenario
- A failure to acknowledge and prepare for the worst case scenario is as dangerous in the case of climate change as it is for terrorism and WMD proliferation.
- Worst case is a combination of **climate policy failure plus worst case climate science** combined with other resource pressures:
  - Security actors can give **no credible guarantee of current security levels** (consistent with global open economy)
  - Move to "defensive" adaptation response – capturing resource access
  - Global crash programme in nuclear fission

Probability of worst case scenario is not small!

The Security Sector at Copenhagen

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- Communicate the security consequences of worst case scenarios to decision makers; no hard security solution to managing climate change risks

- Promote clearer strategic risk management approach to climate change policy; **what is the necessary outcome of Copenhagen in order to preserve climate security**.

- Argue for far higher investment in innovative and disruptive R,D&D to prepare for crash programme: CCS, CSP, solar, biofuels etc

- Engage in policy discussions for design of large scale collaborative R&D programmes inside timescales.

European Response

- 2C threshold agreed as limit to avoid dangerous impacts and tipping points; committed to 80-90% reduction by 2050.
- Copenhagen agreement should take into account post-IPCC science on extreme impacts and be reviewed in 2015 after next IPCC.
- Target to quadruple global energy R&D spend by 2020 as part of Copenhagen agreement;
- €11 billion allocated to CCS demonstration in 2008, but economic stimulus packages generally weak on low carbon investment

A Transatlantic Agenda?

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- Develop joint Worst Case Scenario Analysis: Chatham House/ Royal Society conference September 2009
- Develop clear risk management framework for understanding security implications of different Copenhagen outcomes; NIC plus EU, UK, Ge, Fr Assessment Staff?
- Joint development of global technology development strategy to hedge climate change risks

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Geopolitical Issues: Climate change changes contexts, interests, threats and relationships

- **Mitigation policy**: balance of interests with China/India – from competition to cooperation; intellectual property rights; trade and investment policy.

- **Energy security**: move from producer to consumer relationships; managed transition in strategic producers (Russia; North Africa); politics of biofuels.

- **Nuclear proliferation**: large increased use of civilian nuclear power widespread, stresses on control of security and safety issues

- **Mananging Borders and Neighbours**: Scramble for the Arctic; moving fisheries (collapse of the CFP!); managing migration and environmental refugees.

- **Global resentment**: increase in “anti-globalisation” resentment of developed world; Al-Qaeda statements;

Need the politics of energy and climate security to work together

- Trying generate two public goods- energy and climate security - from the same energy system
- Energy price rises have driven more investment in coal, biofuels and coal-to-liquids than efficiency – and swamp carbon prices
- Political priorities of energy security are driving investment into high carbon solutions using direct policy tools (spending, subsidy, regulation)
- Even Germany is planning up to 40 coal power plants- plus 40% renewables –both subsidised

Currently the politics of energy security is shaping energy markets far more than the politics of climate change

The Move to Consumer Cooperation

- Rising importance of climate security will increase the strength of relationships between large energy consumers, and result in a relative decline in relationships with energy producers

- To meet decarbonisation targets developed world will need to transfer €70-100bn per annum to industrialising countries from 2012. Mixture of carbon market transactions, grant and loans

- Chinese firms will decarbonise China <u>but</u> will need more know-how and expertise through liberalisation of foreign investment in low carbon sectors e.g. construction.

- Support for transfers will depend on commitments to act e.g. pricing reforms; governance reforms; meeting sectoral efficiency targets; IPR protection; investment and trade liberalisation.

- Cooperation on decarbonisation will shift energy security interests; EU helps deliver Russian gas exports to China?

Security is Security is Security

- You cannot achieve energy security by undermining other countries' climate security
- You cannot achieve agreement on climate security without guaranteeing energy security
- There is no military solution to climate security (or energy security?)

Secuirty Implications of a Nuclear Renaissance?

- Baseline IEA forecast – 20% growth in capacity bu 2030

- MIT forcast 400% growth by 2030; 50% in developing countries

- MIT forecast= 10% necessary mitigation activity to 2030

Box: Global Nuclear Build Programmes

Committed/Under Construction

	Size	NPT?
China	15000 MW	Yes
India	5000 MW	No
Japan	14000 MW	Yes
Korea	11000 MW	Yes
Russia	30000 MW	Yes
Iran	2000 MW	Yes

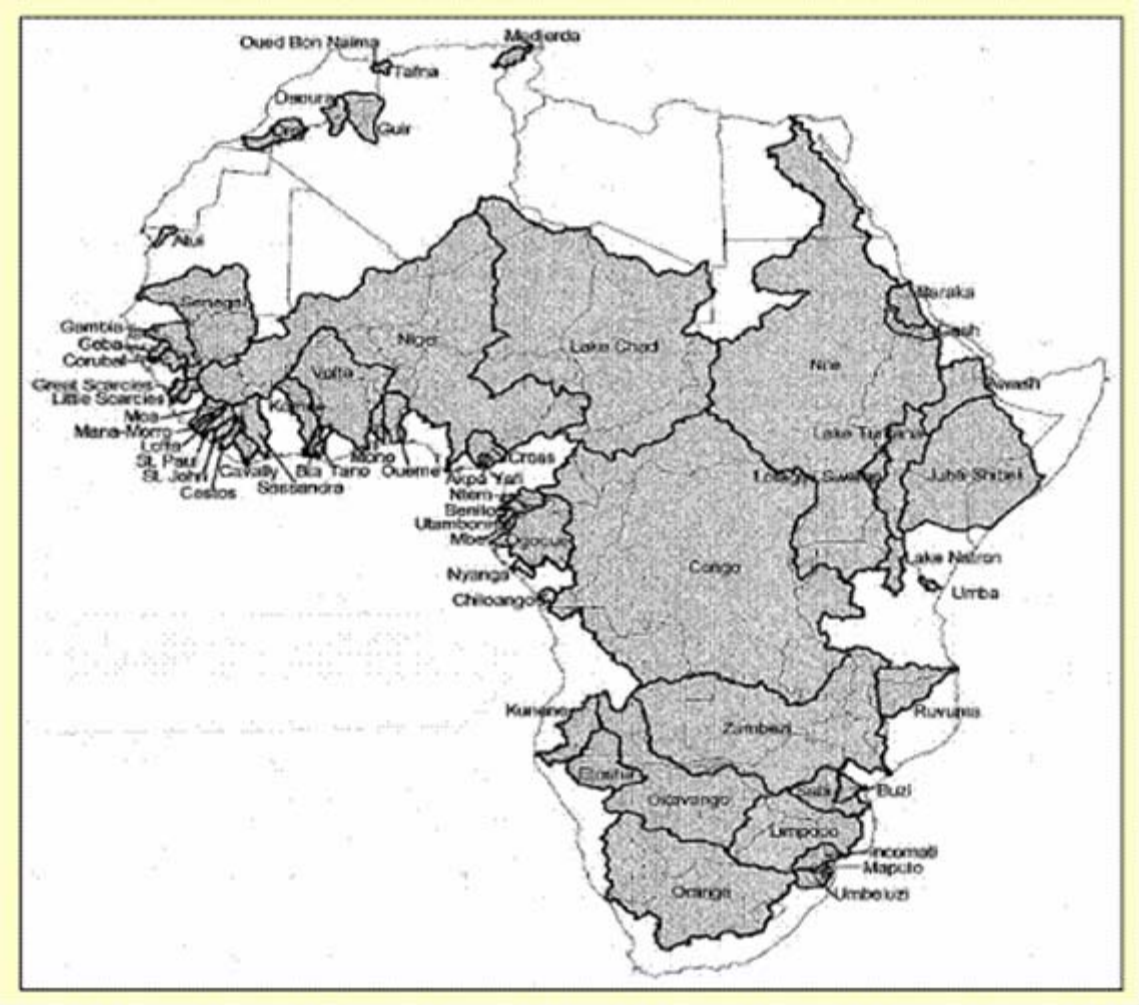
Planning/Under Consideration

	Size	NPT?
Pakistan	600 MW	No
Indonesia	1300 MW	Yes
Vietnam	1000 MW?	Yes
Argentina	700 MW	Yes

Countries considering new nuclear build include US, France, Nigeria, Israel, Kazakhstan and Egypt.

(Source: World Nuclear Association)

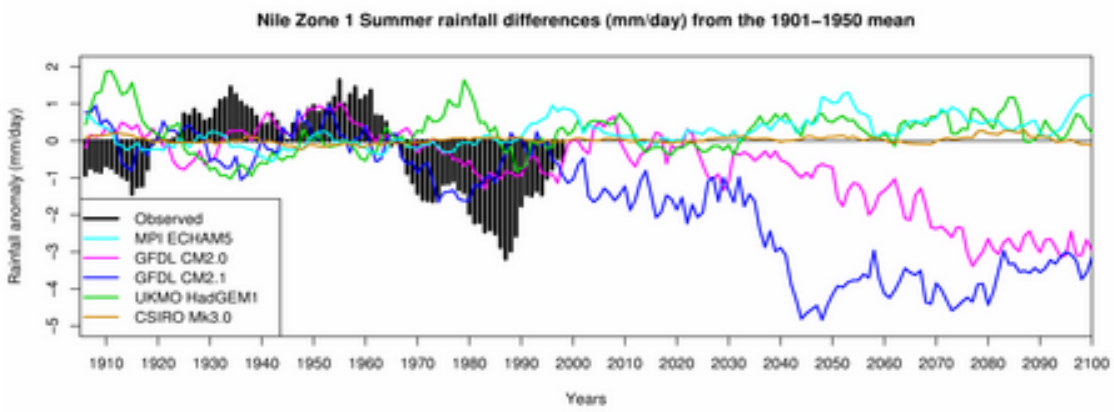
Boundaries and Resource Sharing: African Transboundary Water Management



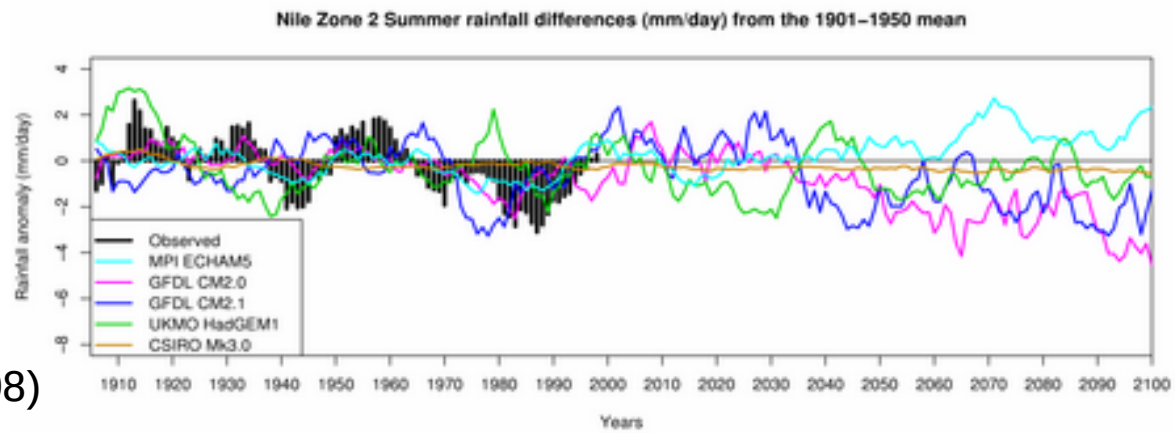
Source: Conway and Goulden (2006)

Uncertainty increases existing tensions – leading to conflict if not managed?

Projected rainfall in Eastern Sudan from selected climate models



Projected rainfall in Ethiopian highlands from selected climate models



Source: Bates (2008)

Where and How are National Interests Balanced?

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- Will only achieve climate security if it is seen as a vital issue on a par with economic security, energy security, proliferation and regional relationships.

- Current prioritisation is much (or more!) a result of organisational structures, politics and inertia as it is strategic thinking.

- Very poor policy mechanisms in all major countries to reconcile these tensions; plays out in political debate and Heads decision-making.

How to embed these issues into the "machinery" of government? Role of the new NSC structure?

EU Responses to Geopolitical Challenges

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- EU-China Cooperation 2009: CCS Demonstration; Low Carbon Development Zones; IPR; Low carbon Free Trade Area?

- EU 2007 package on energy and climate security; agreed December 2008.Increasing aim to join up policy areas – critical path through Russia policy.

- November 2008 Communication, “The European Union and the Arctic Region” a first step towards an EU Arctic policy, including on environmental and geopolitical challenges.

Slow emergence of joined up agenda but hampered by traditional policy silos particularly between climate change and energy security/foreign policy (Russia!)

A Transatlantic Agenda?

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- Bilateral EU-US discussions on engagement with China covering investment, technology and IPR issues. Move into G8 agenda?

- Joint work on the energy security implications of climate change and of decarbonisation, including impact on management of supplier relations.

- Joint analysis of the proliferation implications of high nuclear build and any conditionality needed in the Copenhagen agreement on funding. Acceleration of Gen IV programme on lower risk technologies?

- Agreement on how to handle key security related policy issues inside and outside UNFCCC framework:
  - Transboundary water management- adaptation funding conditionality?
  - Border issues – freeze at 1990 positions? Arctic and LoS?
  - Environmental refugees – framework for handling rights and responsibilities?

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Strategic Logic of Climate Driven Instability

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- Successful adaptation to climate change will be fundamentally challenged by borders, existing property rights (e.g. water) and vested interests

- Poor governance systems – especially communally controlled resource management – will amplify climate change impacts not damp them. “Adaptation” policies are not politically neutral.

- Impacts of climate mitigation policies (or policy failures) will drive political tension nationally and internationally; climate change driven deaths are different politically .

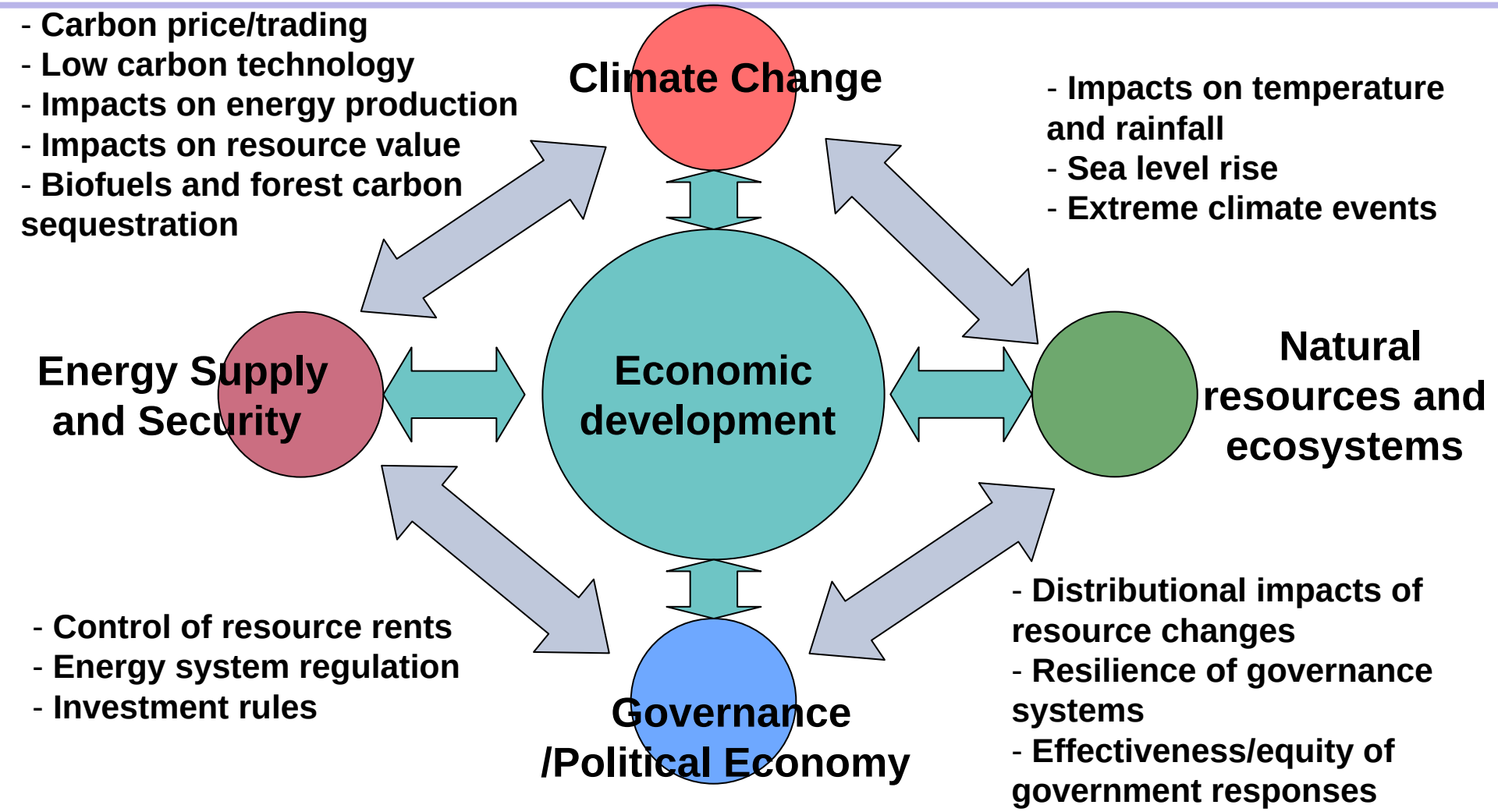
- In an increasingly interconnected world a wide range of interests will be challenged by security impacts of climate change: investment in China; drugs and Afghanistan/Caribbean; extremism and economic failure in N Africa; oil prices and Niger Delta/Mexico extreme events.

Response is better prevention/resilience but where to invest?

- Climate Change is another serious stressor in already unstable countries, regions and communities (Africa, ME, S Asia, SIDS)
- If worst impacts hit it will dominate most other factors by 2020-50 in many vulnerable countries, and earlier in vulnerable areas (e.g. Sahel)
- Its practical impact on policies to lower risks of conflict and instability can only be understood through comprehensive analysis – have yet to develop adequate tools to do this. Limited by weakness of broader conflict analysis tools and models.
- Responses imply a greater focus on governance, resource management, local conflict resolution capability etc Key issue is providing analysis to practitioners allowing them to prioritise.

Targeting interventions is biggest challenge

Climate Change and Instability: We have yet to develop holistic analysis tools



Five Critical Areas for Improvement

- **Threat analysis**: understanding links between instability/ungoverned spaces a policy objectives e.g. counter-terrorism
- **Understanding adaptation policies as driver of conflict:** better understanding of how adaptation policies need to be designed to reduce rather than increase conflict risks.
- **Strategic geographic risk assessment**: more detailed understanding at regional level of stress drivers through “mapping and monitoring” studies
- **Dynamic economic modelling**: dynamic models of how convergence of climate volatility, resource scarcity and economic weakness can provide endogenous shocks in vulnerable countries; 2008 perfect storm energy, climate and food crisis.
- **Bottom-up data gathering**: improve reporting of tension and conflict through bottom-up conflict data collection/monitoring in vulnerable regions

European responses

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Africa

- Co-operation between the AU Situation Room and corresponding EU structures is being enhanced. There is scope to bring in a climate change dimension, using data provided by the strengthened observation networks for climate change and migration developed under the EU/Africa Action Plan for the implementation of the Africa-EU Strategic Partnership.

Middle East

- (i) strategies for sharing water resources in the Jordan Valley and Tigris-Euphrates, drawing on best practice in water management and conflict mediation; and
- (ii) assessment of likely impact of climate-related migration on North Africa.

Central Asia

- Through the Central Asia Strategy, we should address potential sources of conflict in the Fergana Valley and around the Aral Sea, including migration and ethnic tension. In doing so, we can build on the Central Asian Initiative for Sustainable Development, and Environmental Action Programme for Central and Eastern Europe Task Force (OECD).

Progress hampered by lack of strong leadership for climate mainstreaming, budget for developing new risk tools and Member State conservatism over potential role of EU External Action Agency

A Transatlantic Agenda?

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- Better sharing and review of regional/country case studies. Building unclassified platform with non-governmental actors - DoE initiative?
- Coordinate research programmes to improve tools and data collection
- Agree to joint strategic dialogue around key regions of concern: Sahel, Afghanistan and Caribbean?

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Four Critical Actions in 2009

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- Develop a common position on what Copenhagen needs to do to deliver climate security
- Develop common risk management strategy including on role of strategic technology development
- Agree broad strategic approach to cooperation with China on technology, IPR and low carbon investment; trial through G8 CCS agreement?
- Preliminary agreement on where to handle critical climate security issues in the international system and stronger collaboration on risk assessment issues

Thank You

- More information at www.E3G.org

- “Delivering Climate Security” available from RUSI