

Climate Diplomacy and Security Risk Management



Why international climate negotiations matter
for US and global security objectives

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This analysis is based on several strands of E3G's work:

- E3G's climate and resource security work since 2005 with UK, De, EU and US govts including on MENA, Arctic, EU and UK Security Strategies
- E3G climate risk management framework: "*Degrees of Risk*"
- Global drivers and trends analysis to 2030 which identified critical factors which will shape climate change diplomacy
- Annual Political Scenario analysis of political space ahead of the COPs
- Political Economy mapping and analysis of 25 key emitting economies
- Gaming of 2015 Paris Climate agreement and on-going analysis of political dynamics of Paris

Takeaways



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- **2015 matters for Security** : Climate change is already impacting security. The outcomes of international processes in 2015 including the SDGs, UNFCCC and the Montreal Protocol will have a material impact on the medium term security environment and short term economic, geo-political and budgetary priorities.
- **2015 is not the Superbowl**: 2015 will not result in an “end state” climate regime which credibly limits climate risk below 2C. 2015 needs to do enough to keep the world within critical risk limits, deliver investment certainty and public confidence.
- **The US is successfully shaping the climate regime**: U.S. political commitment and investment in climate diplomacy has resulted in significant changes in position from other major economies; including new commitments from China. But the **US is still perceived as an unreliable partner** as major countries fear reversal of US climate policy and this is undermining the impact of U.S. diplomacy.
- **Security issues should be integrated into the climate regime**: many U.S. allies view climate change as a core national interest in bilateral relationships. Climate is already impacting US planning and deployments. Reforms to the international climate regime could improve resilience, strengthen alliances and reduce calls on US & European militaries.

Presentation Outline



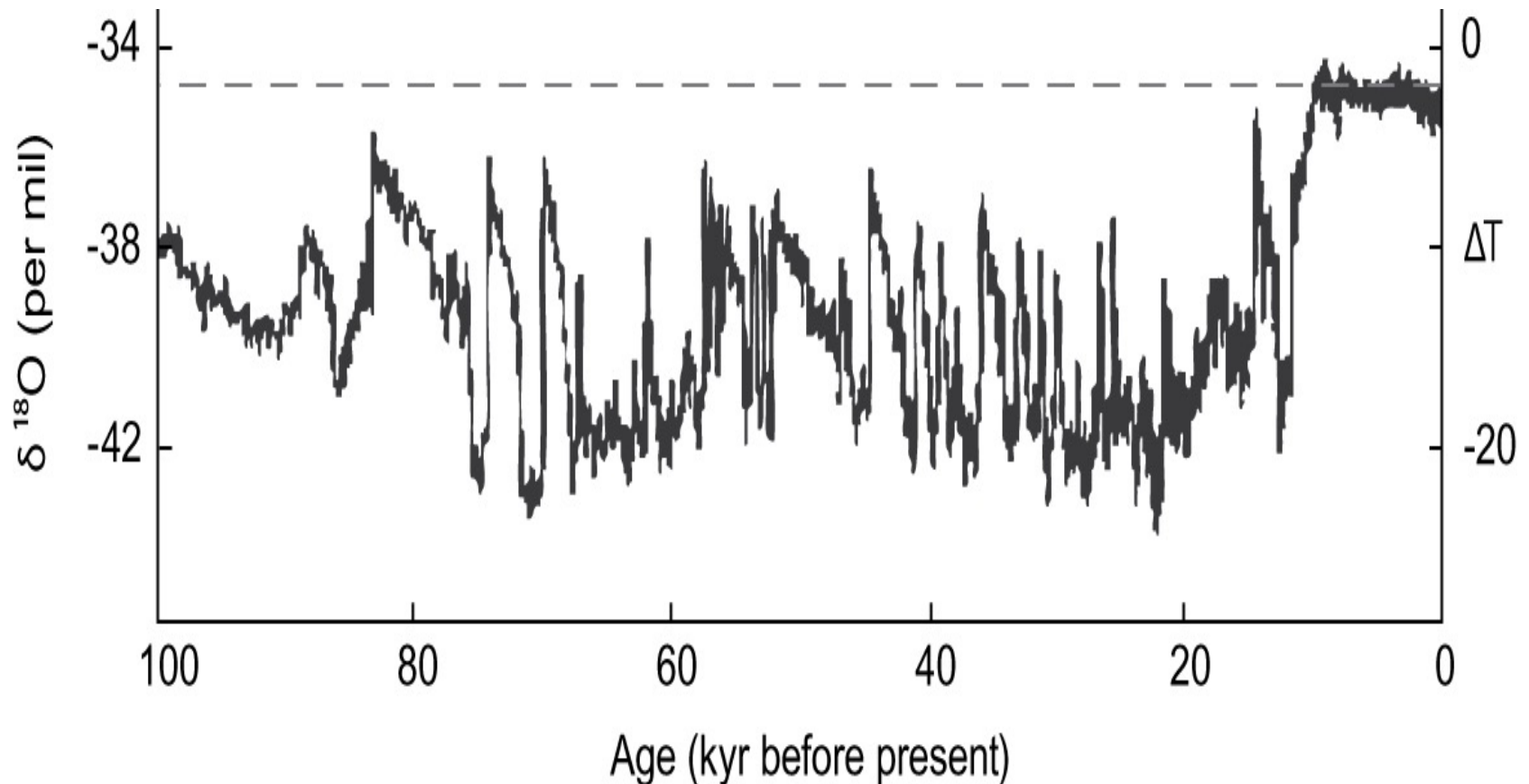
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1. Introduction
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Human civilisation has evolved in an unusually stable climatic period



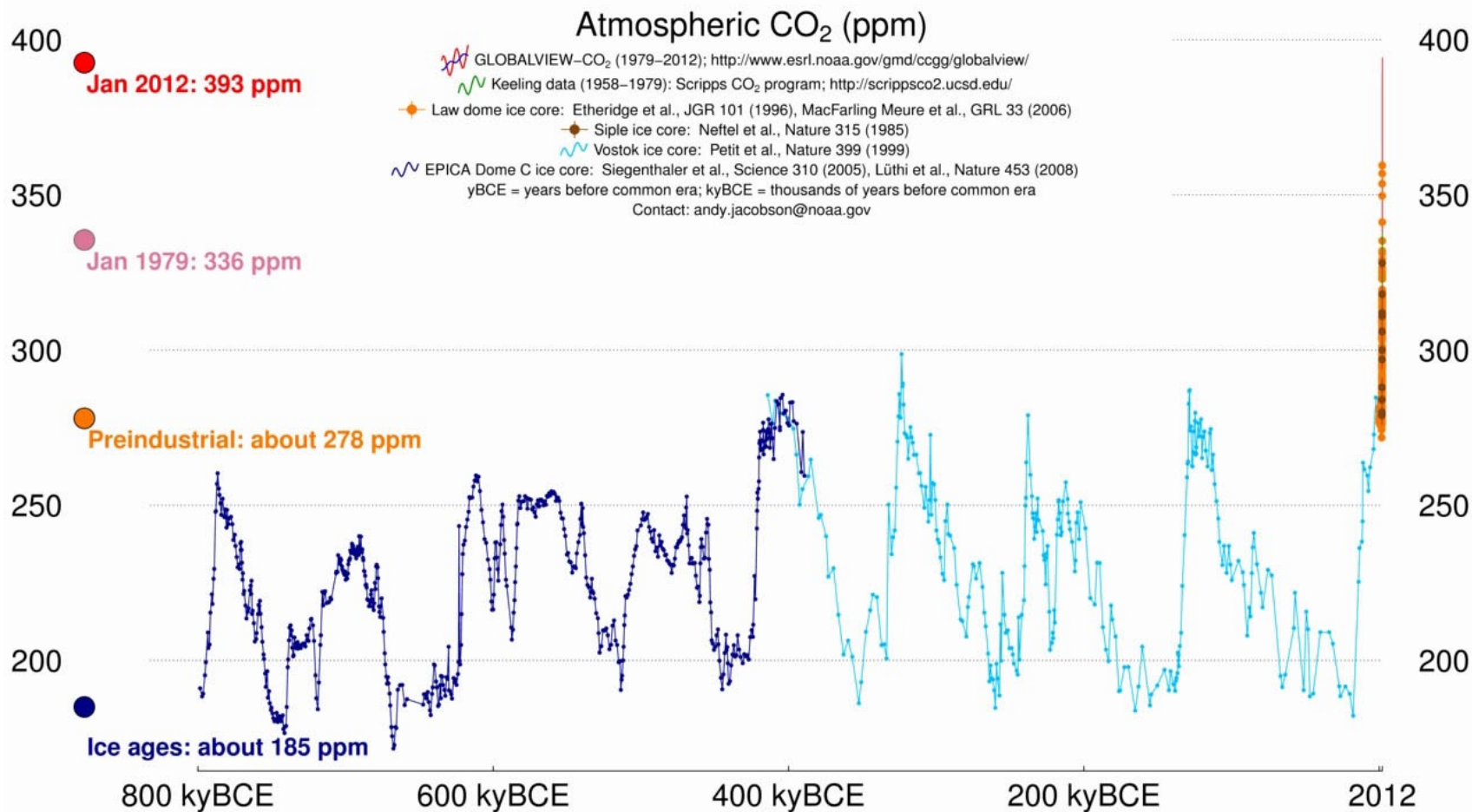
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Rising CO₂ emissions are pushing us into unprecedented risk areas



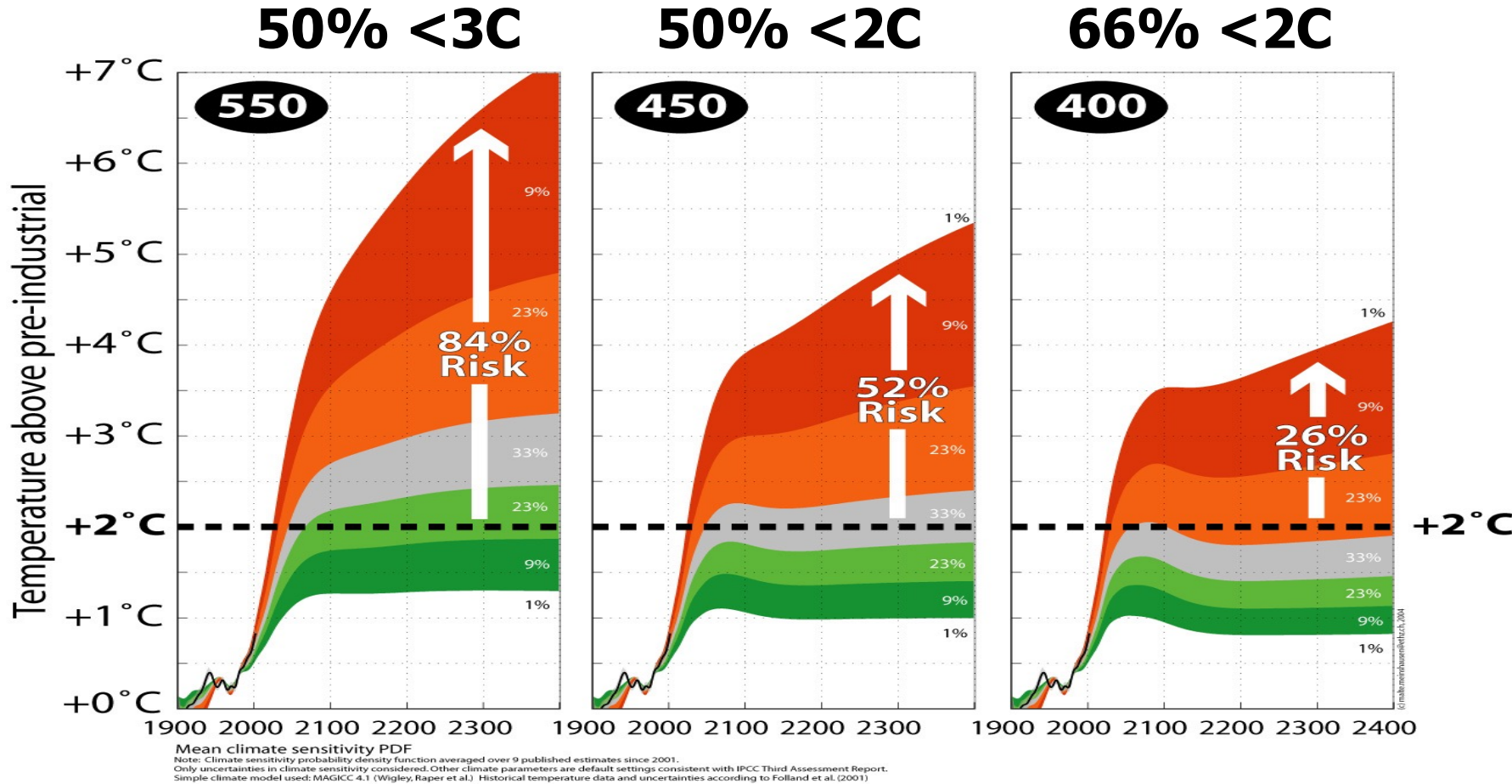
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Uncertainty is endemic; aiming for "2°C" can imply significant risks of much higher warming

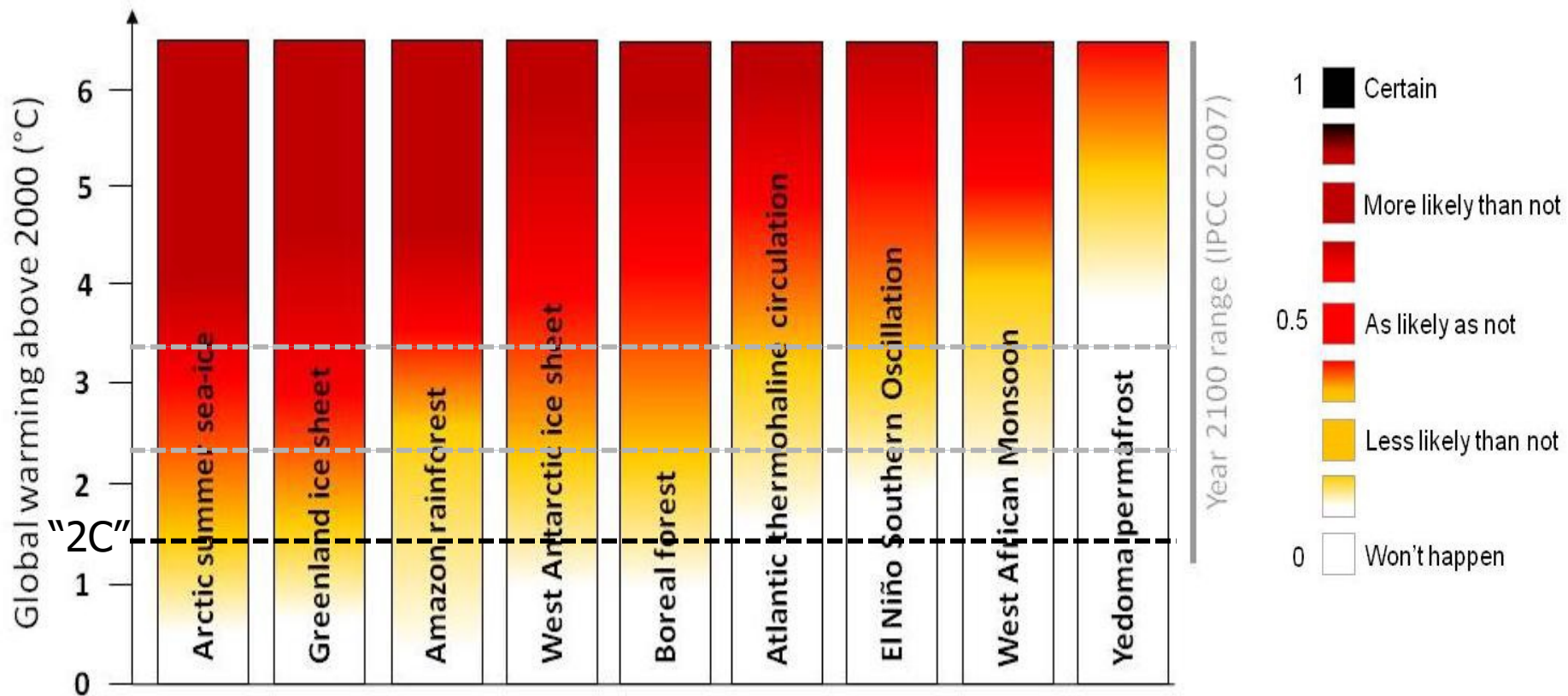


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Source: Meinshausen, M. (2005) *On the Risk of Overshoot – 2 degrees*

The risk of breaching Tipping Point points rises strongly beyond 2C



Source: Lenton, 2010

The links between climate change and security are now widely accepted



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- Center for Naval Analysis: climate change is already acting as a **“catalyst for conflict”**
- **Admiral Samuel Locklear**: climate change is the **“biggest long term security threat to the Asia Pacific region”** and of all the scenarios is likely the most likely thing to **“cripple the security environment”**
- Retired Marine Corps **General Anthony C. Zinni**: **“We will pay for this one way or another. We will pay to reduce greenhouse gas emissions today, and we'll have to take an economic hit of some kind. Or, we will pay the price later in military terms.”**
- **Hsiang et al (2013)**. for each one standard deviation (1σ) change in climate toward warmer temperatures or more extreme rainfall, median estimates indicate that the **frequency of interpersonal violence rises 4%** and the frequency of intergroup conflict rises 14%
- Maplecroft Climate Change and Environmental Risk (2014): “Widespread drought and food insecurity helped create the socio-economic conditions that led to the **emergence of Boko Haram** and the violent insurgency in the North East of the country.”

41% of US experts think climate is the top US foreign policy issue

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 publics' confidence in the UN system.
- 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.

In 2008 we predicted climate change would shift contexts, interests, threats and relationships



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- **Mitigation policy:** balance of interests with China/India and balance of competition with cooperation; intellectual property rights; trade and investment policy in clean technology.
- **Energy security:** move from producer to consumer focused relationships; transition in strategic producers (Russia; North Africa); politics of biofuels and unconventional oil.
- **Disruption of Markets and Rules:** rising extreme weather events will stress global markets and trade rules in areas such as food and fuel as countries protect domestic consumers first.
- **Managing Borders and Neighbours:** scramble for the Arctic; moving fisheries; managing migration and environmental refugees.
- **Global resentment:** increase in “anti-globalisation” resentment of developed world; Al-Qaeda statements on climate.

By 2015 these dynamics have moved from being possible scenarios to everyday reality



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- **Mitigation policy:** climate change is major element of US-China and US-India diplomacy; 80% EU trade defence instruments (by value) on low carbon goods in 2013; EU diplomatic disputes on ETS in aviation & tar sands exports. UK regulators examining “carbon bubble” financial instability.
- **Energy security:** TTIP & gas exports. EU-China energy security dialogue. EU energy efficiency policy is making new gas import pipelines uneconomic.
- **Disruption of Markets and Rules:** 2008 fuel and food price crises driven by extreme weather events and export bans; Thailand floods disrupted supply chains and is driving investors away from vulnerable regions.
- **Managing Borders and Neighbours:** Arctic politics continue to grow in importance; Mediterranean migration exacerbated by long term drought.
- **Global resentment:** growing govt repression of anti-coal activism; global fossil divestment campaigns emulating anti-apartheid movement; 40K marched in Copenhagen in 2009 - 400K people marched in NYC in 2014.

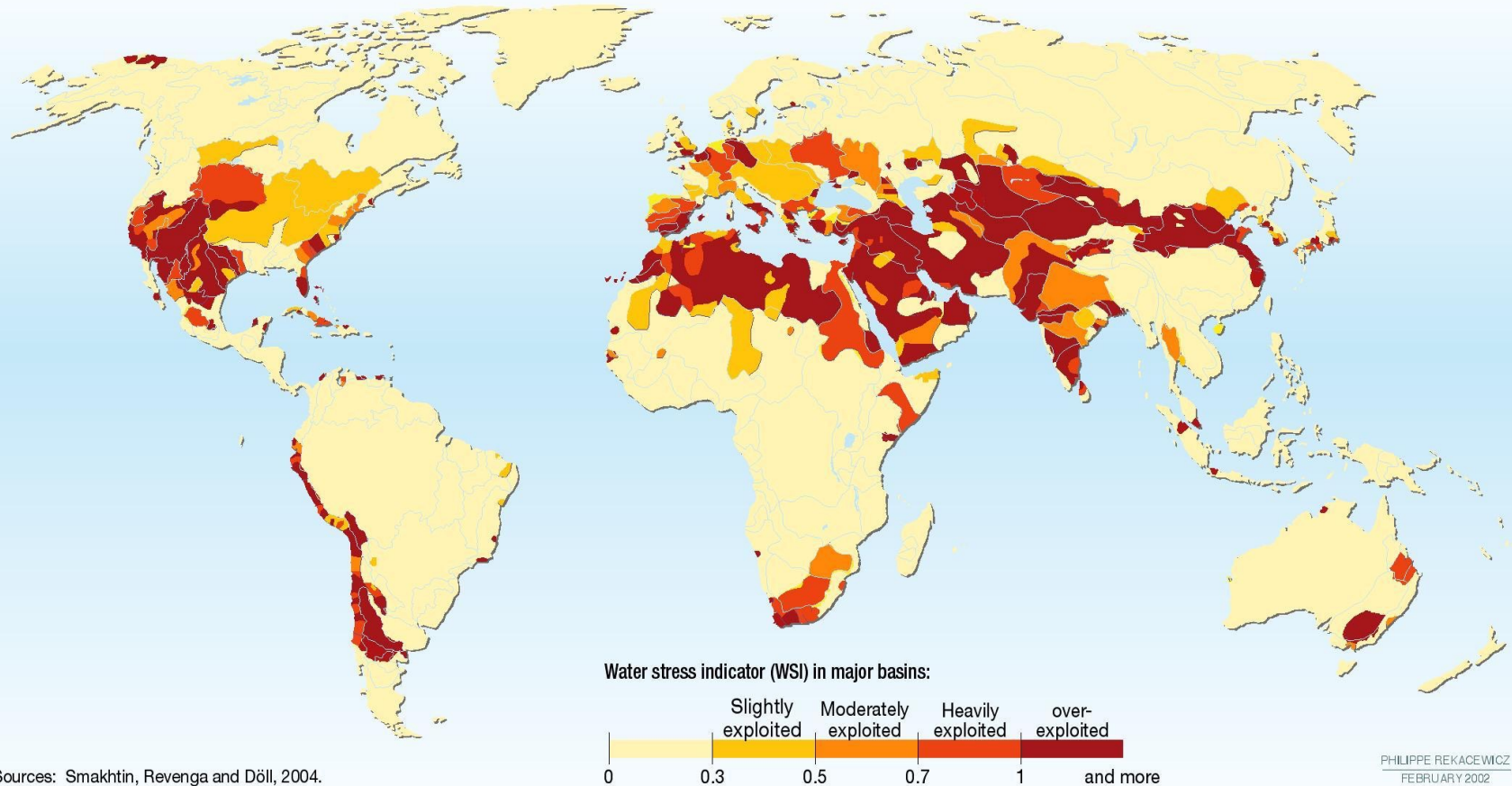
US Security assessment of climate 'hot spots' – similar in other NATO countries



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- “Recent **war games and intelligence studies** conclude that over the next 20 to 30 years, vulnerable regions, particularly **sub-Saharan Africa, the Middle East and South and Southeast Asia**, will face the prospect of food shortages, water crises and catastrophic flooding driven by climate change that **could demand an American humanitarian relief or military response.**”
- **National Intelligence Council:** “The Middle East and South Asia are the two regions most likely to trigger broader instability. Rapid changes in precipitation such as monsoons in India and the rest of Asia could sharply disrupt that regions’ ability to feed it’s population.”
 - **“Impact of climate change-driven migration is likely to affect Africa and Asia far more than other continents.”**
 - **“Much of the decline in precipitation will occur in the Middle East and North Africa as well as Western Central Asia...”**
 - **“Tension remain in South Asia, the Middle East, and elsewhere, but increased multilateral cooperation on poverty and climate change lessens the risk of instability.”**

Water stress could be key factor in higher instability. EU neighborhood at high risk

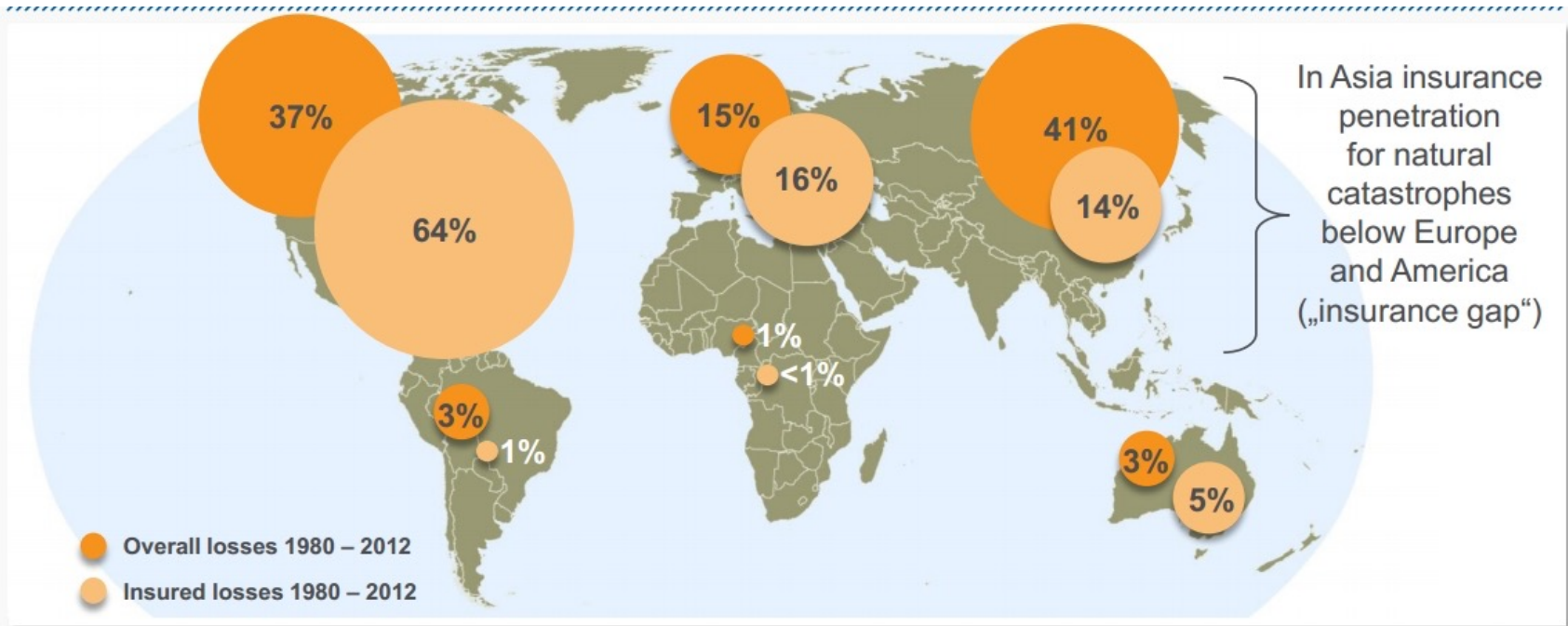


Sources: Smakhtin, Revenga and Döll, 2004.

Is the US the most domestically climate vulnerable OECD country?



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Continent / Subcontinent	Overall losses US\$bn (US\$ 3,800bn)*	Insured losses US\$bn (US\$ 970bn)*	Fatalities (2,300,000)
America	1,500	630	340,000
Europe	500	160	150,000
Africa	45	2.1	610,000
Asia	1,600	130	1,180,000
Australia/Oceania	105	42	5,900

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International climate agreements need to have real consequences in order to reduce risk



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Reducing climate risk to “manageable” levels requires shifting \$90 trillion of planned high carbon investment to 2030 into efficient, low carbon and resilient infrastructure.

- **Manage climate risk:** Agree global GHG emissions reductions ambitious enough to keep 2C outcome credibly within reach
- **Strong Signals:** provide a strong signal of irreversible movement towards a low carbon economy so that businesses and investors can plan an orderly transition and shift RD&D and business development models.
- **Rules for Confidence:** a regime that delivers confidence and transparency in the delivery of commitments between Parties. This also provides a foundation for opening trade and investment markets.
- **Ratchet for Mitigation Ambition:** Provide a credible regime for reducing and managing evolving climate risk by containing strong mechanisms to ratchet up mitigation ambition and helping countries build resilience and manage climate impacts.

The International Climate Regime is Broadening and Deepening



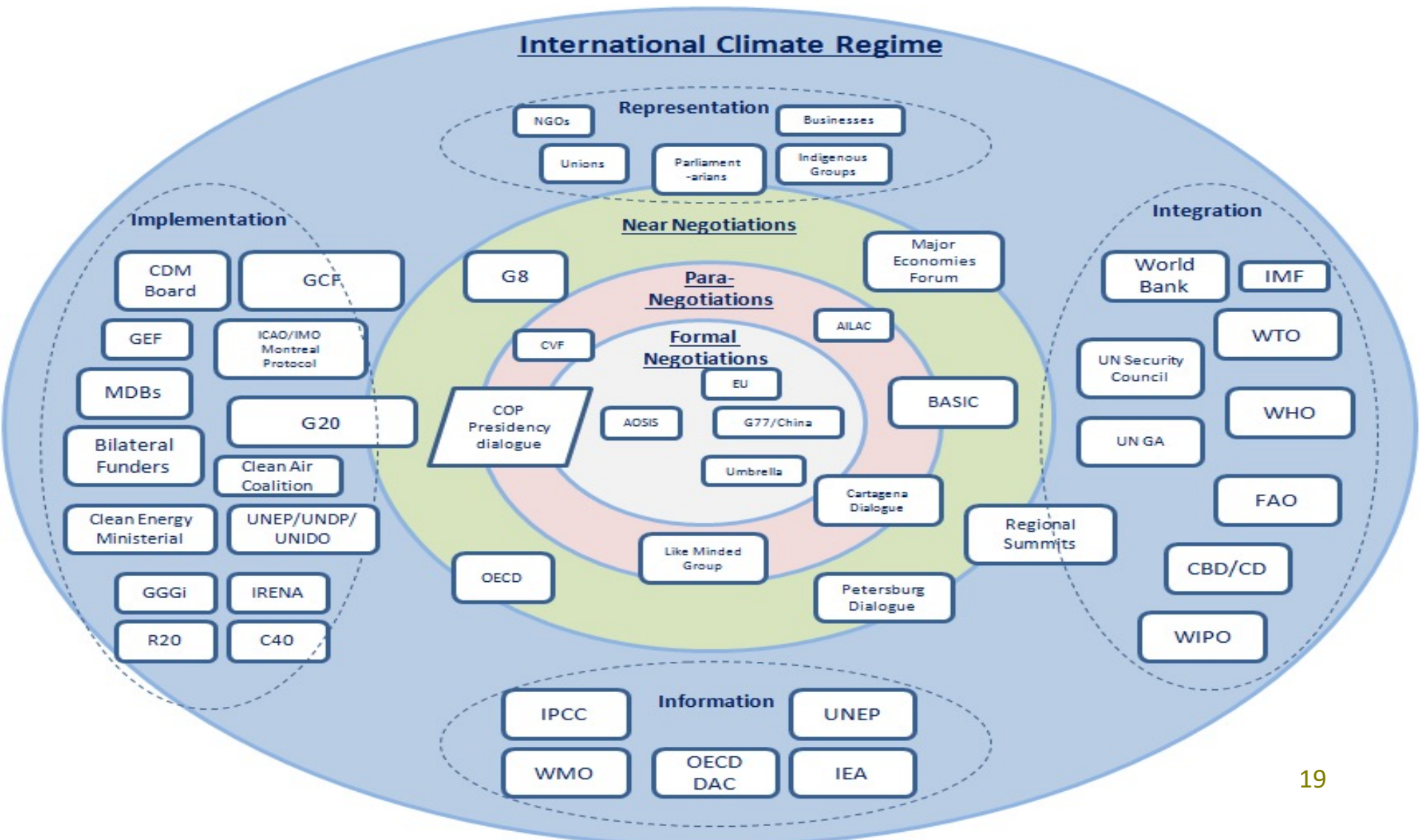
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- **Negotiations:** climate change is addressed in a range of negotiating fora from UNFCCC to G7 to MEF and UNFCCC.
- **Implementation:** decisions taken in UNFCCC are implemented through institutions like GEF, Green Climate Fund, ICAO, IMO etc
- **Integration:** climate change is being integrated into the work of key institutions such as UN Security Council, WTO, World Bank, IMF, FAO, WHO and WIPO.
- **Information:** global information on climate change and country emissions provided by UNEP, OECD, WMO, IPCC
- **Representation/Participation:** government to government process supported and supplemented by growing networks of cities, regions, businesses; parliamentarians and civil society.

UNFCCC is not the only game in town but it is the core of the international regime



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The world has changed decisively since the “failed” Copenhagen Summit



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- **Climate change impacts** have become more visible and costly in all parts of the world. Scientific evidence has strengthened on attribution of climate change contribution to the risk of extreme weather events. **First “tipping point” likely breached in Western Antarctica.**
- **Resource prices will remain volatile** and **resource efficiency is becoming central to national economic and security strategies.**
- Many large middle income economies will be undertaking **economic transitions** over the coming 5-10 years to reorient their economies making the shift to low carbon path cheaper and easier. **50-90% of 2C climate investment has short term positive cost-benefit** for individual countries.
- **Renewable energy prices likely to continue to fall fast** and may reach near parity with fossil fuels in many countries. Electric mobility and smart technologies are also lowering in price and delivering attractive consumer offers.

Climate politics reflect and shape geo-political and geo-economic realignments



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- **Power in climate politics is shifting.** In 1990 China was 10% of global emissions in 2013 it was 25%. In 1990 per capita Chinese GHG emissions were ¼ of the EU's; in 2015 per capita emissions are the same.
- **Alliances are changing:** climate negotiations have seen rapidly shifting alliances such as the BASIC group (Brazil, South Africa, India, China). Growing shift from “North-South” dynamics to “climate makers vs takers” with vulnerable states growing their voice.
- **Economic Opportunities are growing:** global low carbon economy grew to \$4-5 trillion in 2015. Liberalization and market access into low carbon sectors is a focus in WTO, TTIP and US Strategic Economic Dialogue with China.
- **Investment is the battleground:** 70-80% of the \$90 trillion of global investment which must shift from high to low carbon by 2030 will occur in non-OECD countries. Tensions possible between role of World Bank and new lending institutions such as BRICS bank and Asia Infrastructure Bank

Paris Agreement represents a decisive break from the past



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- Agreement will have “legal force”
- It will apply to all major emitters
- It will contain concrete commitments to limit emissions from all countries
- It will not make delivery of all developing country commitments conditional on new climate finance
- It may contain a “ratchet and review” process to stop countries backsliding and regularly increase mitigation ambition
- It may contain a long term goal of net zero emissions

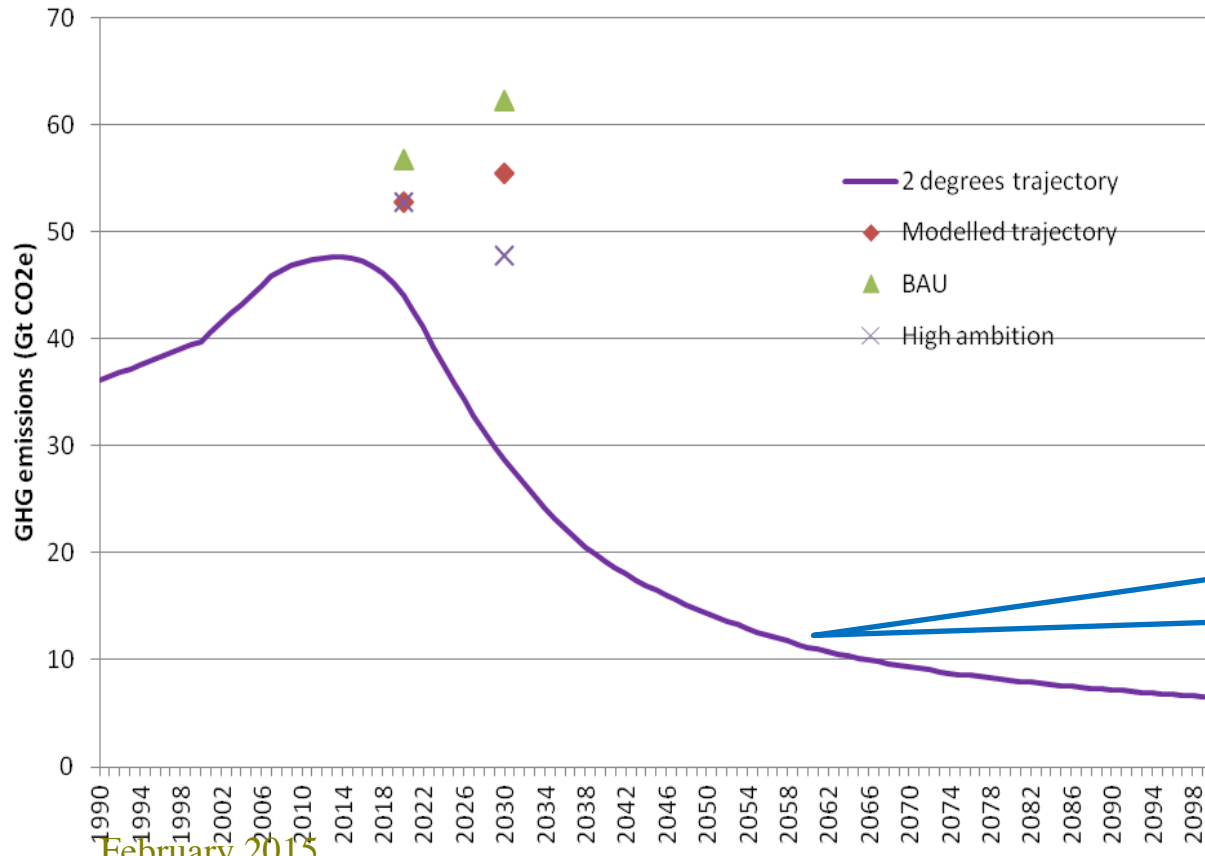
Countries failing to deliver can be legitimately and unilaterally subject to border measures under WTO rules

2015 UNFCCC Scenario Gaming: even high ambition scenario results in 2030 emissions of 48Gt, well above 2°C trajectory



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Scenario emissions compared with an ideal 2°C trajectory



- High ambition scenario leads to 2030 emissions of around 48Gt towards the high end of a 2.5°C trajectory.

- The low ambition scenario leads to 2030 emissions of 55Gt, only 7Gt below BAU.

Purple line represents a 2°C trajectory, which passes through 44Gt in 2020 and 29Gt in 2030.

Prospects for Paris and Beyond



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- **No slam dunk 2C:** Even a “high ambition” outcome in Paris does not deliver a global 2C emission reduction pathway (at 66% certainty level)
- **Deal in room ≠ success:** “best guess outcome” is a deal agreed between countries on 3-3.5C trajectory with weak transparency and review rules. Business, investors and public may well call this a failure.
- **Copenhagen II still possible:** smaller possibility that misjudgements over climate finance could crash the Summit if handled badly
- **Finance is key to good rules:** G7 countries need to agree a credible finance package if vulnerable developing countries are to pressure China and India to agree strong transparency rules and a meaningful review and ratchet mechanism
- **Build for beyond Paris:** 2015 must build coalitions to underpin future higher mitigation commitments e.g. supply chain commitments on deforestation; clean energy trade and investment partnerships.

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US investment in climate diplomacy since 2009 is already paying dividends

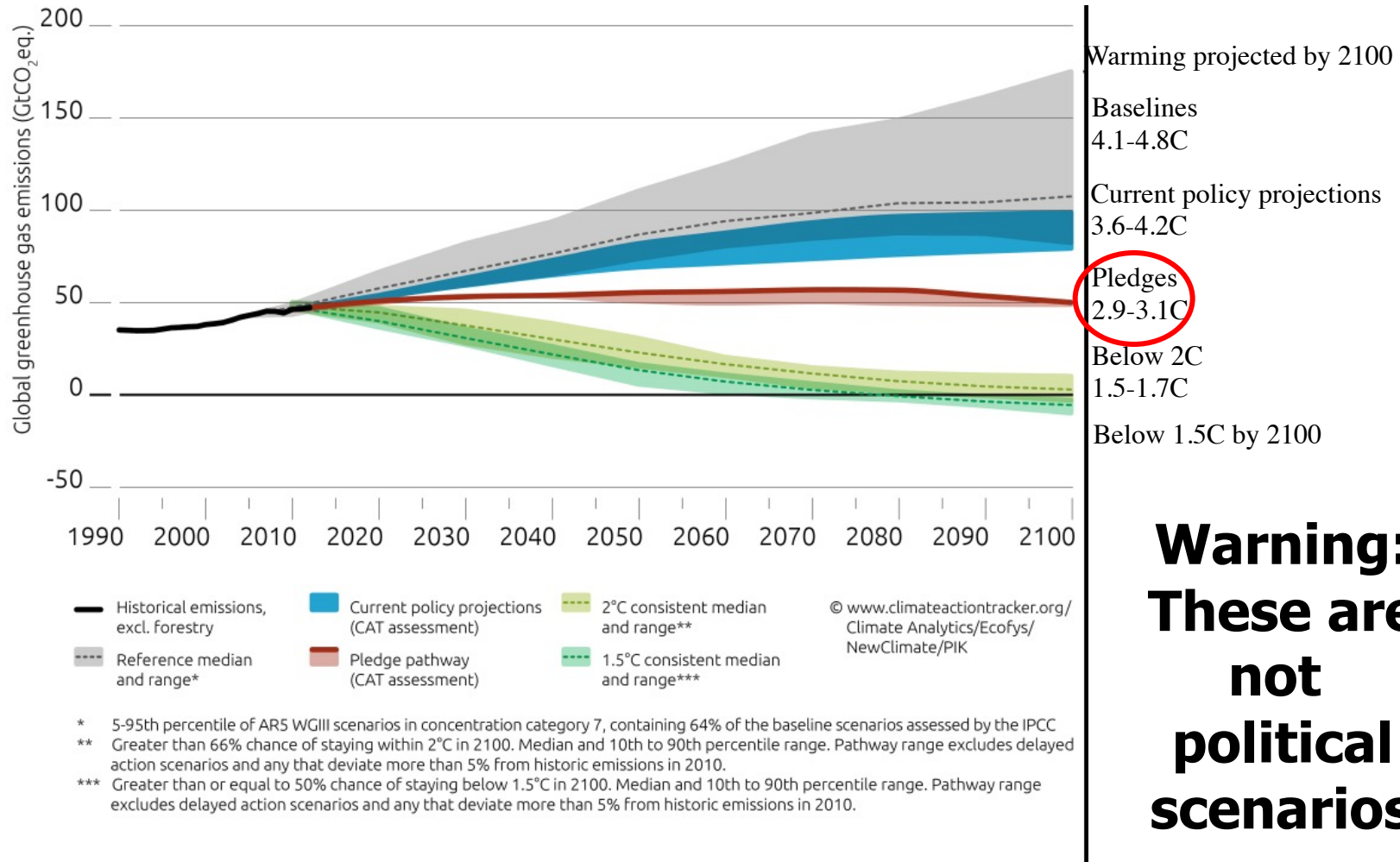


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- US-China agreement plus EU target widely recognized as boosting prospects for a deal in Paris and improving overall tone of negotiations. For the first time since 2009 CAT projects discernably lower climate risk trajectory (see next slide)
- \$3bn US commitment to Green Climate Fund was seen as significant as in line with US historic share of support to international climate change
- US led the G20 process towards agreement on global phase out of highly potent HFCs through Montreal Protocol amendment
- Final EU 2030 target for *at least* 40% reduction influenced by expectations of US action

Lima demonstrated that US efforts bought the US significant goodwill and action from allies

Modelled climate risk reductions from US, China and EU post-2020 pledges



**Warning:
These are
not
political
scenarios!**

There is some skepticism of US ability to keep its promises



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- Conversations with senior politicians and policy makers from major countries show that while many are encouraged at US climate diplomacy efforts there is widespread skepticism about its ability to deliver its domestic reductions and significant climate finance.
- There is a risk that opposition from lawmakers in the US could damage trust in the international negotiations and lower the probability of a comprehensive and effective deal in Paris.
- This could result in some key US allies perceiving the US as being responsible for a failure to secure an agreement.
- This would also have real world implications in terms of delivering US foreign policy and security objectives.

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The impact of climate change on security will be in large part determined by the strength of international co-operation



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- The impact of climate change on security environment will be determined in part by the success - or not - of efforts to reduce global emissions below dangerous risk levels
- The resilience of countries and their global interests to climate change will also depend on the strength, nature and effectiveness of international cooperation on building resilience, adaptive capability, governance and disaster management
- The success or failure of these efforts will have profound impacts on countries' willingness and ability to cooperate on other global issues – and will impact the general level of inter-state tension in many regions

Climate change is not top of the diplomatic agenda outside the US



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- Domestic economic reforms in the face of global economic stagnation and oil price volatility dominate most countries agendas
- Ukraine, ISIS, terrorism & migration dominate foreign policy – especially in EU (plus Grexit and Brexit)
- TTIP receiving far greater political and public attention despite much lower economic impacts. *TTIP best case = +0.5% GDP by 2030. EU best case energy efficiency policy = +4.5% GDP by 2030 (European Commission, 2014).*

Distraction is undermining the global diplomacy needed to deliver a strong Paris outcome

What would failure in Paris mean?



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- Two failure modes:
 - **Zombie**: weak agreement locked into 2030 which clearly puts world off a 2C trajectory
 - **Copenhagen II**: UNFCCC talks fail and major emitters walk away.
- Has economic, geo-political, relationship and hard security impacts in short and medium term.

Probable Short Term Economic Impacts



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- Rapid drop in value of low carbon and clean technology company stocks - especially severe in OECD countries.
- Pressure to re-open national climate and energy policies in EU, US, Japan, Latin America etc. Would chill energy infrastructure investment and GDP growth as businesses and investors unclear on future policy direction. *Clean energy supply investment is 0.3-0.6% of GDP in major economies and policy uncertainty reduced UK energy investment by 75% in 2014 (BNEF, 2015).*
- Pressure for measures to block trade from “carbon intensive” countries – particularly China - will increase. Rise in trade disputes in clean energy sectors as countries protect their industrial base.

Significant pressure on the rules-based trading system

Probable Geo-political Impacts



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- Major impact on credibility of integrating China (as largest carbon power) into a rules-based system
- Major blow to EU as a diplomatic actor shaping and supporting global rules – increased probability that TTIP will be blocked by EU public protest
- Strengthening of “parallel” global development and investment system funded by China
- Significant impact on public trust in - and support for – international system as source of stability and security

Strengthens “defensive regionalism” and power geopolitics

US Relationship Case Study: the Philippines - a climate and security ally



- The Philippines is one of the most vulnerable countries to climate change (3rd most according to UN)
- Typhoons Ondoy, Pepeng, Sendong, and Pablo claimed the lives of more than 3,000 people, caused economic damage amounting to US\$5.7 billion. Typhoon Haiyan and Typhoon Hagupit killed 6000 and damages of \$12.9bn
- Currently in the process of implementing its Climate Change Act and the Philippine Disaster Risk Reduction and Management Act
- Has taken outsize role in climate negotiations – recently left “Like Minded Group” with US encouragement became one of the first developing countries to call for emission cuts from all countries
- Following Typhoon Haiyan US Defense Secretary Chuck Hagel ordered the USS George Washington and her battle group to provide humanitarian assistance. More than 14,000 U.S. military personnel were activated to respond.

US relationship with the Philippines matters for the US “pacific pivot”



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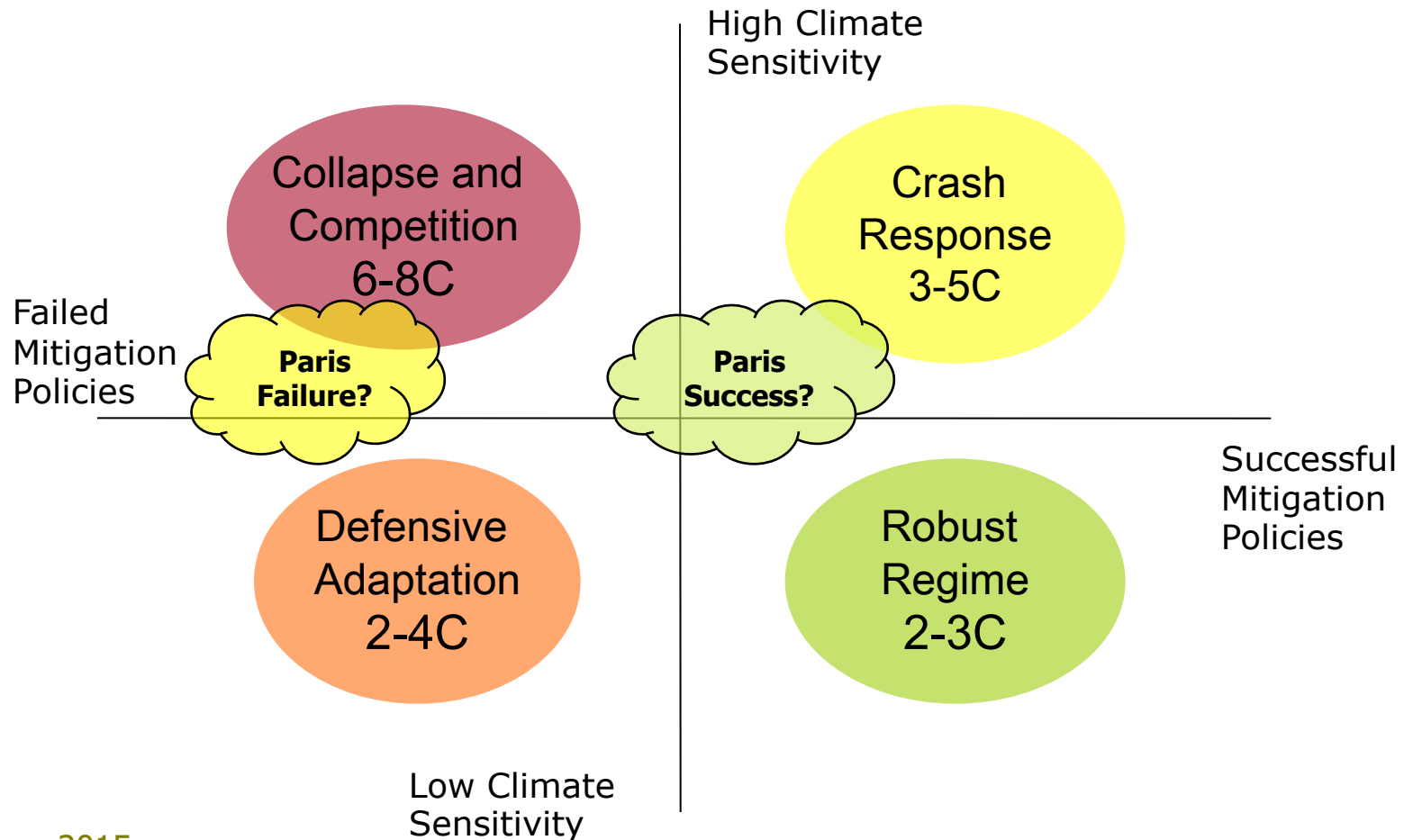
- The Enhanced Defense Cooperation Agreement, signed by President Barack Obama during a state visit in April, allows U.S. forces and contractors to operate at agreed locations in the Philippines for at least 10 years.
- This is the first increase in America’s military presence in the islands to significant numbers since the U.S. bases were shut down two decades ago after an impasse was reached on negotiating a new lease.
- Hands over operational control of the locations to U.S. forces and allows them to stockpile defense equipment and supplies.
- Philippine government officials have said three to five bases are being considered, initially, as hosts for the U.S. forces.
- **Philippines a key nexus of climate and security relationships**

Security Policy must prepare for worst-case scenarios



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Scenarios for 2050 based on global agreement to keep temperatures below 2C



Security/Stability Policy Impacts



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- **Planning Assumptions Raised:** climate change planning assumptions for strategic risk, bases, equipment and disaster response load would need to be revised up radically.
- **Adaptation Pull Back:** Mitigation failure will remove rationale for many countries to fund adaptation in developing countries except on their borders decreasing resilience elsewhere.
- **Global Resilience Cooperation Reduced?** Mitigation failure likely to reduce cooperation on resilience of global food supply chains, trans-boundary water agreements, fisheries agreements, migration management and disaster response?

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Elements of a “Security–Supporting” International Climate Regime



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Monitoring Risks

- Defining critical climate security objectives against science-based scenarios
- New approaches to delivering up-to-date monitoring and analysis of critical risks at all levels: global, regional, national and local

Reducing Risks

- Investment in contingency plans to respond to worst case scenarios: technology and infrastructure programmes
- Strong system of international monitoring and verification of mitigation backed by strengthened UNFCCC Secretariat (IAEA analogue?)

Managing Risks

- Stronger international cooperation on transboundary issues
- Building effective shared approaches to improving resilience and response in conflict and instability prone areas

Priority Security Outcomes in Climate Regime 2015-2020?



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- Agreement to ensure “conflict-sensitivity” analysis of adaptation spending and prioritise building governance resilience
- Agreement to prioritise funding for stronger monitoring systems for environmental stress in fragile areas and strengthen cooperation
- Environmental refugees - review of rights and responsibilities?
- UN mandate to review climate resilience of Transboundary Water and Fisheries management treaties
- Progress on institutional reform overseen by UNSG Special Envoy on Climate Security reporting to UNSC and UNGA

G7 Foreign Ministers meeting could launch this agenda and would help build alliances with key vulnerable countries

Conclusions



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- Security actors have a strong stake in outcome of Paris climate negotiations in 2015
- Key objective is to support effective climate diplomacy in order to avoid failure and keep 2C credibly within reach
- Security and foreign policy actors can help keep focus on consequences of Paris failure on economic and geo-political issues in order to maintain it as a priority agenda in crisis-filled 2015.
- Opportunities to build stronger international cooperation on risk management, resilience and stability which strengthen key relationships and reduce future burdens on US & European militaries

The urgent must not displace the important



How much climate risk will you take?