

DIRECTORS' DINNER ON CLIMATE CHANGE

27th MARCH 2019

Hotting Up

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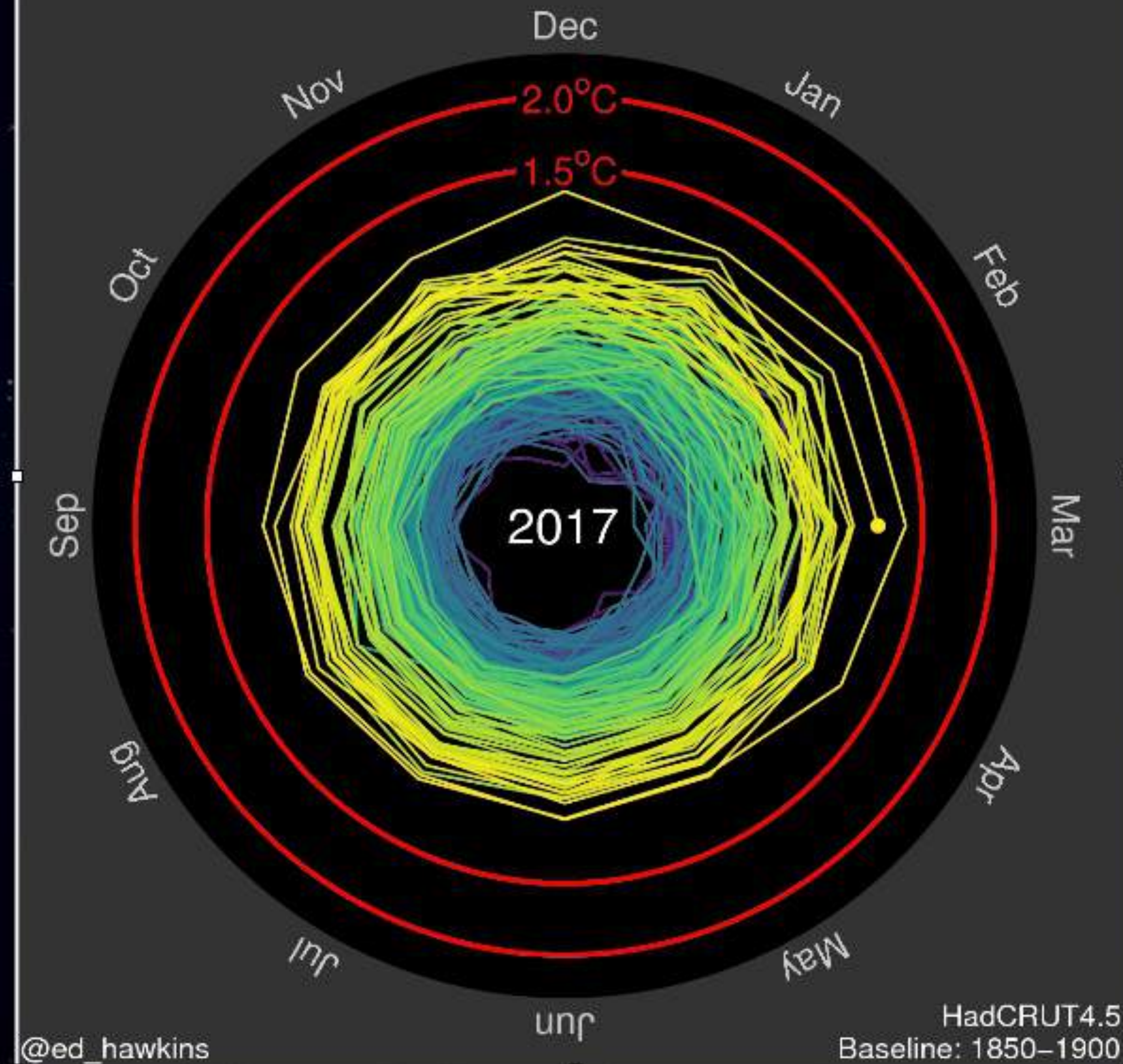


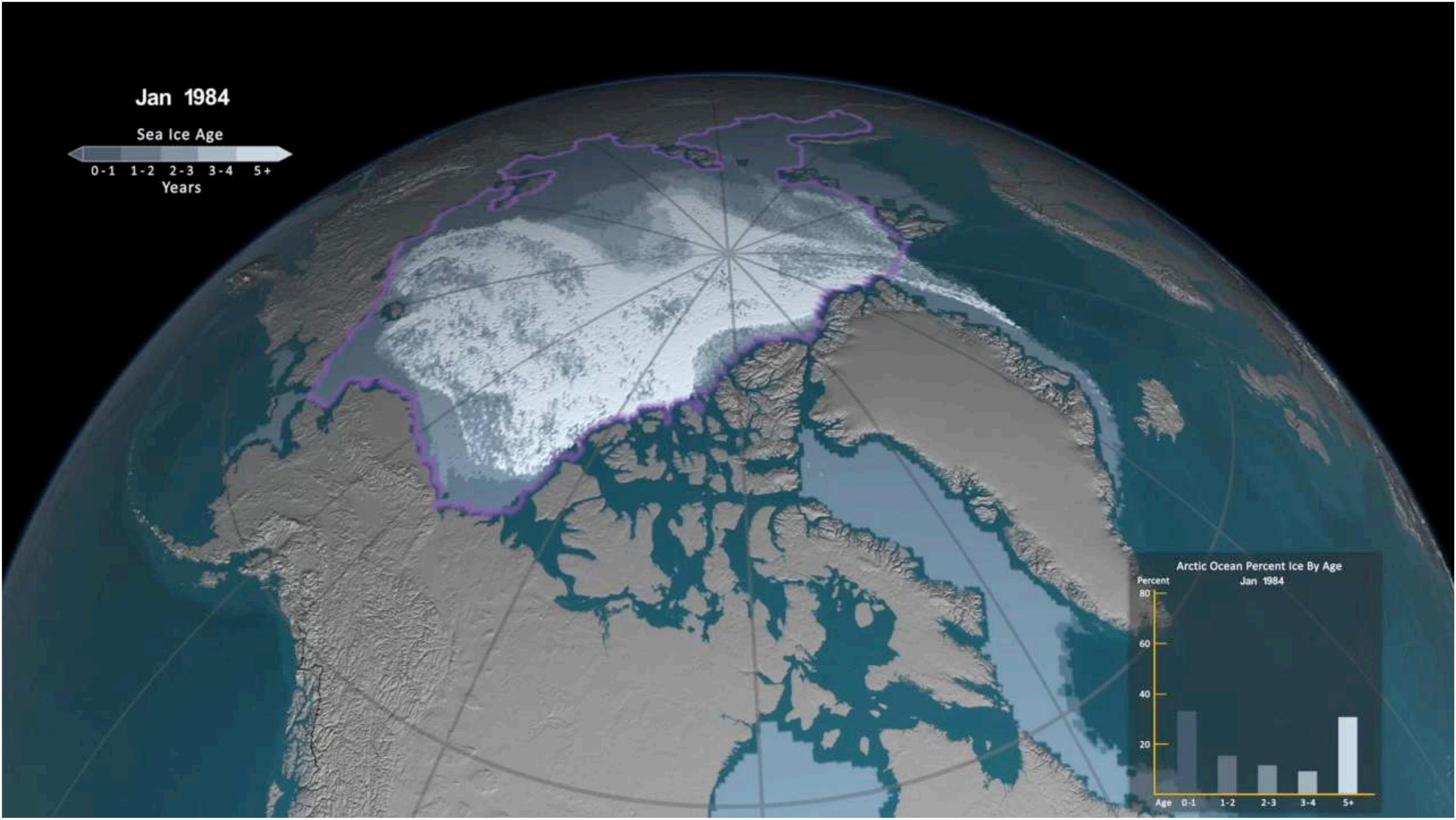
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**We have Upset the
Energy Balance of
the Planet**

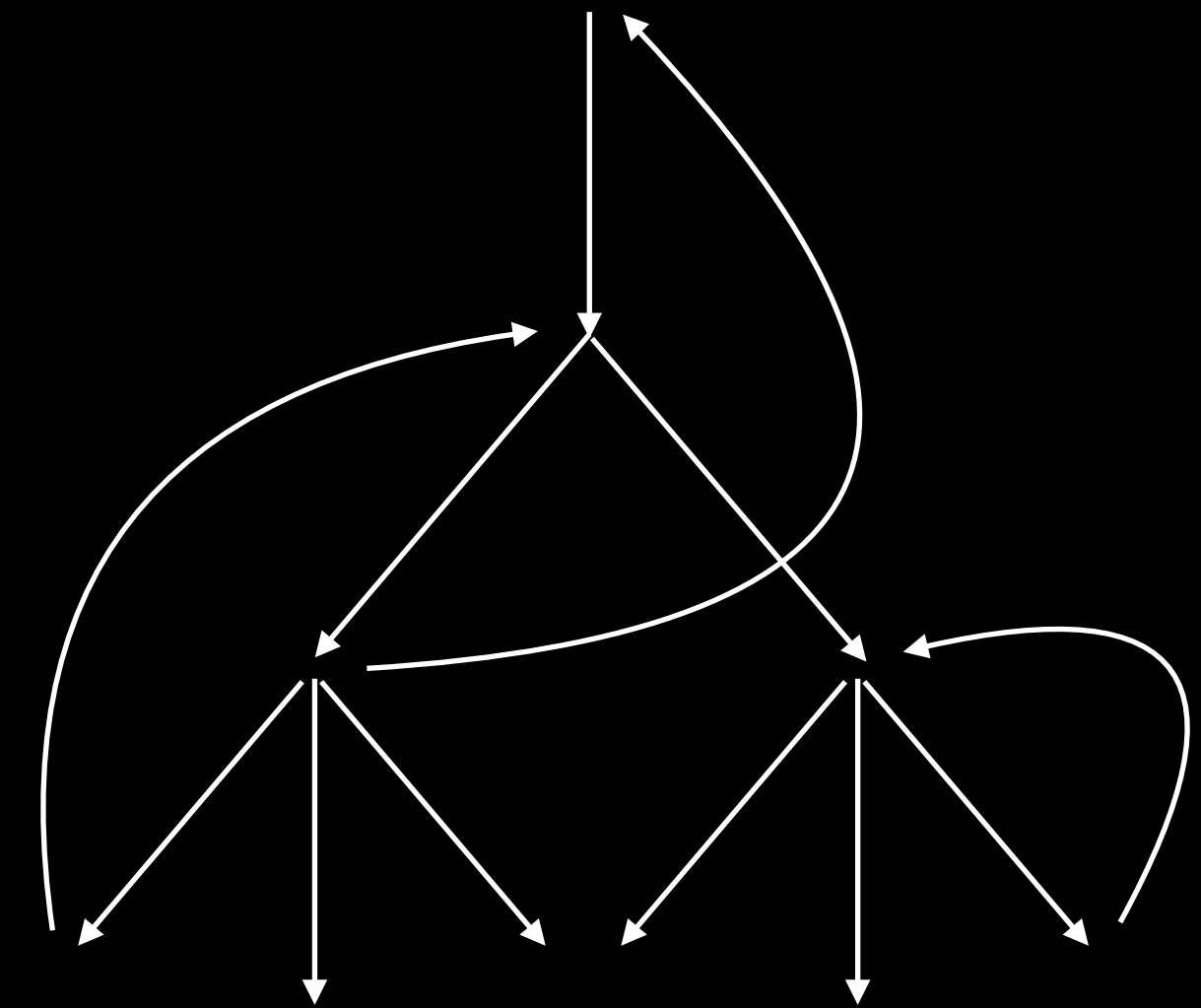
Global temperature change (1850–2017)





As the Energy Accumulates ...

- The world warms
- Ice & snow melt
- Sea levels rise
- Ocean and Atmosphere circulation patterns change
- Water cycle accelerates
- Extreme Weather Events increase
- Ecosystems respond
- Food and Water supplies are affected
- Infrastructure is damaged or requires upgrading
- Economic and Political Stability are affected
- People and Species are impacted





Imperfectly Adapted



D E P A R T M E N T O F D E F E N S E

2014 CLIMATE CHANGE

ADAPTATION ROADMAP

Rising global temperatures, changing precipitation patterns, climbing sea levels, and more extreme weather events will intensify the challenges of global instability, hunger, poverty, and conflict.







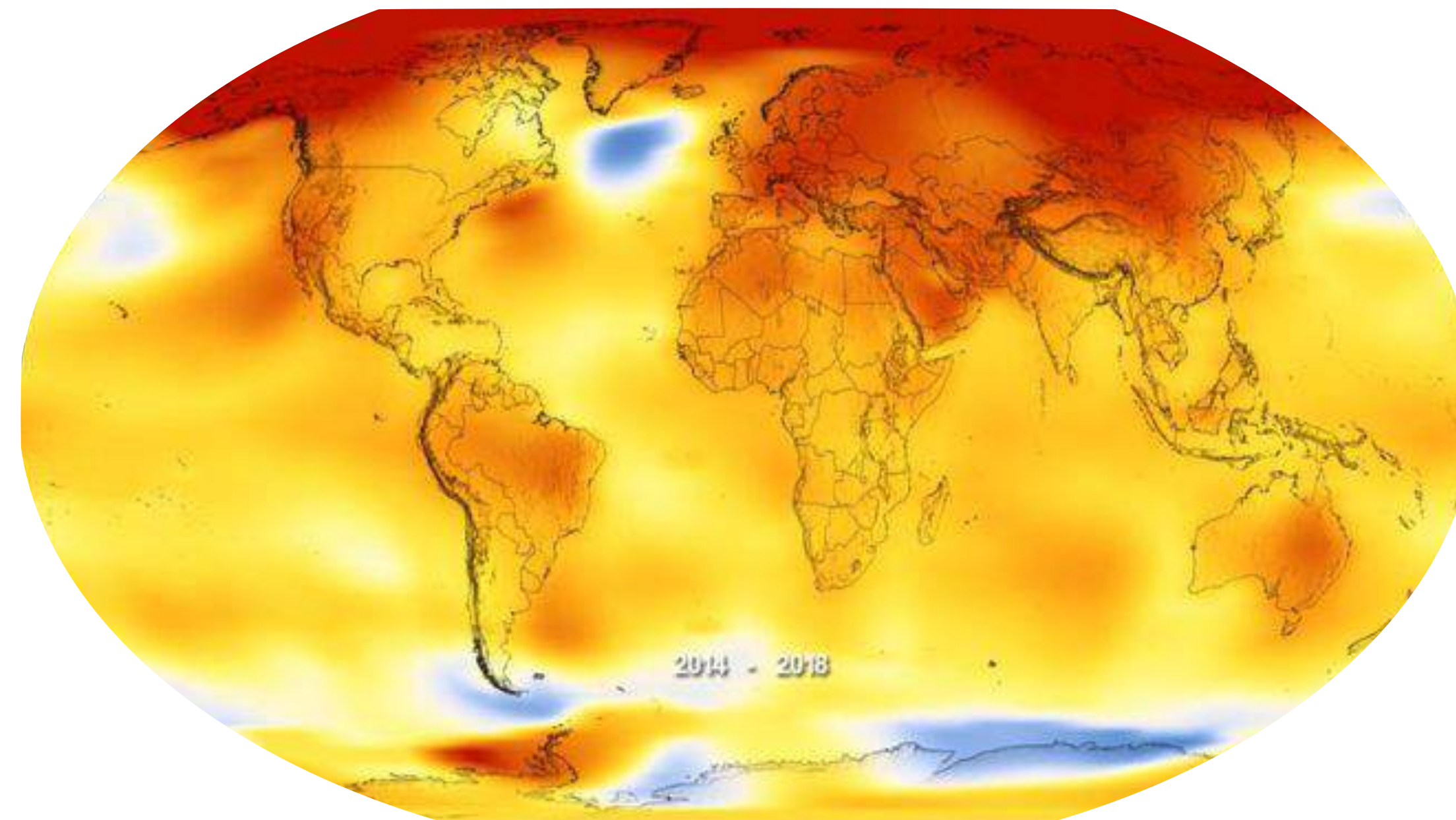




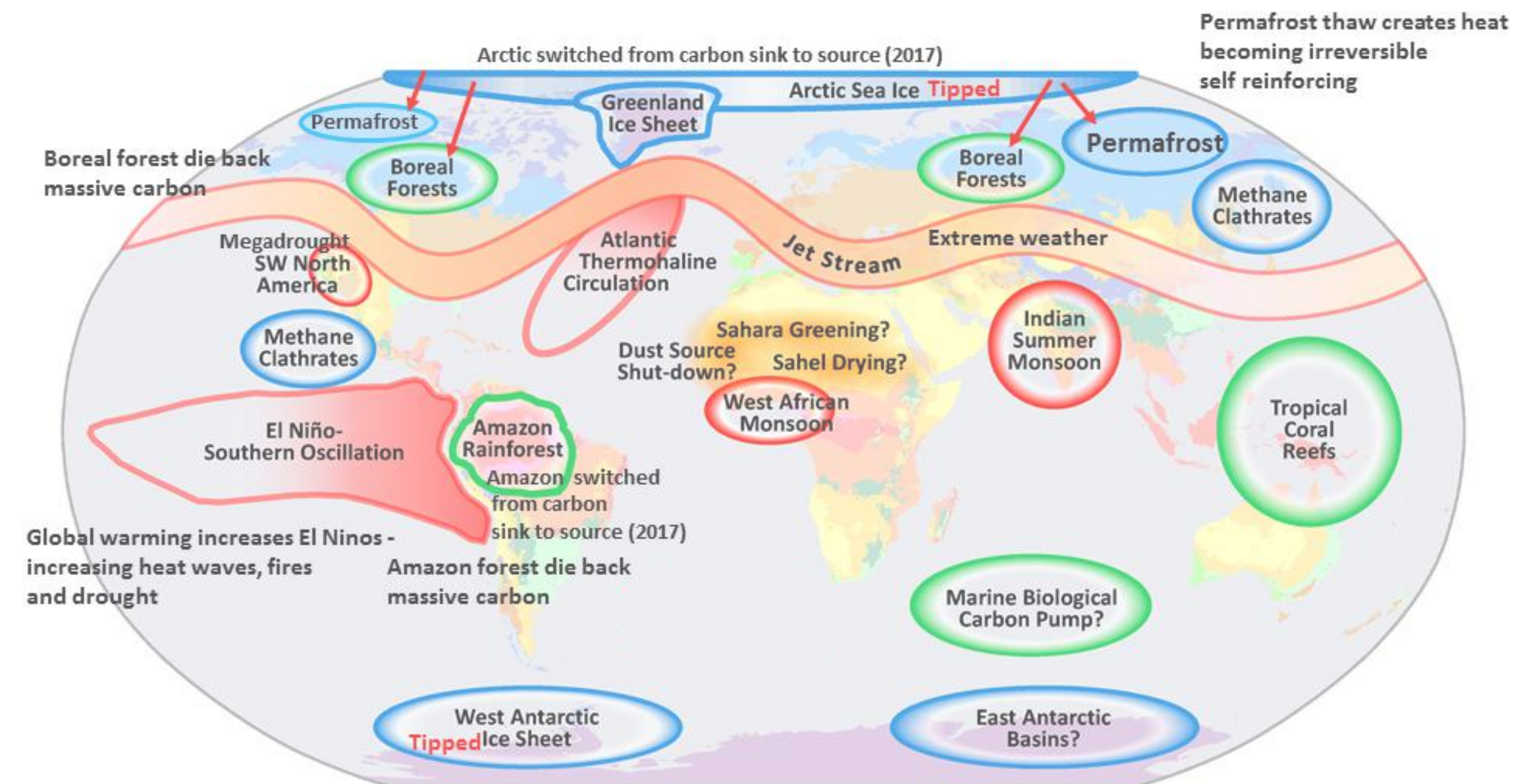
Threat Multiplier



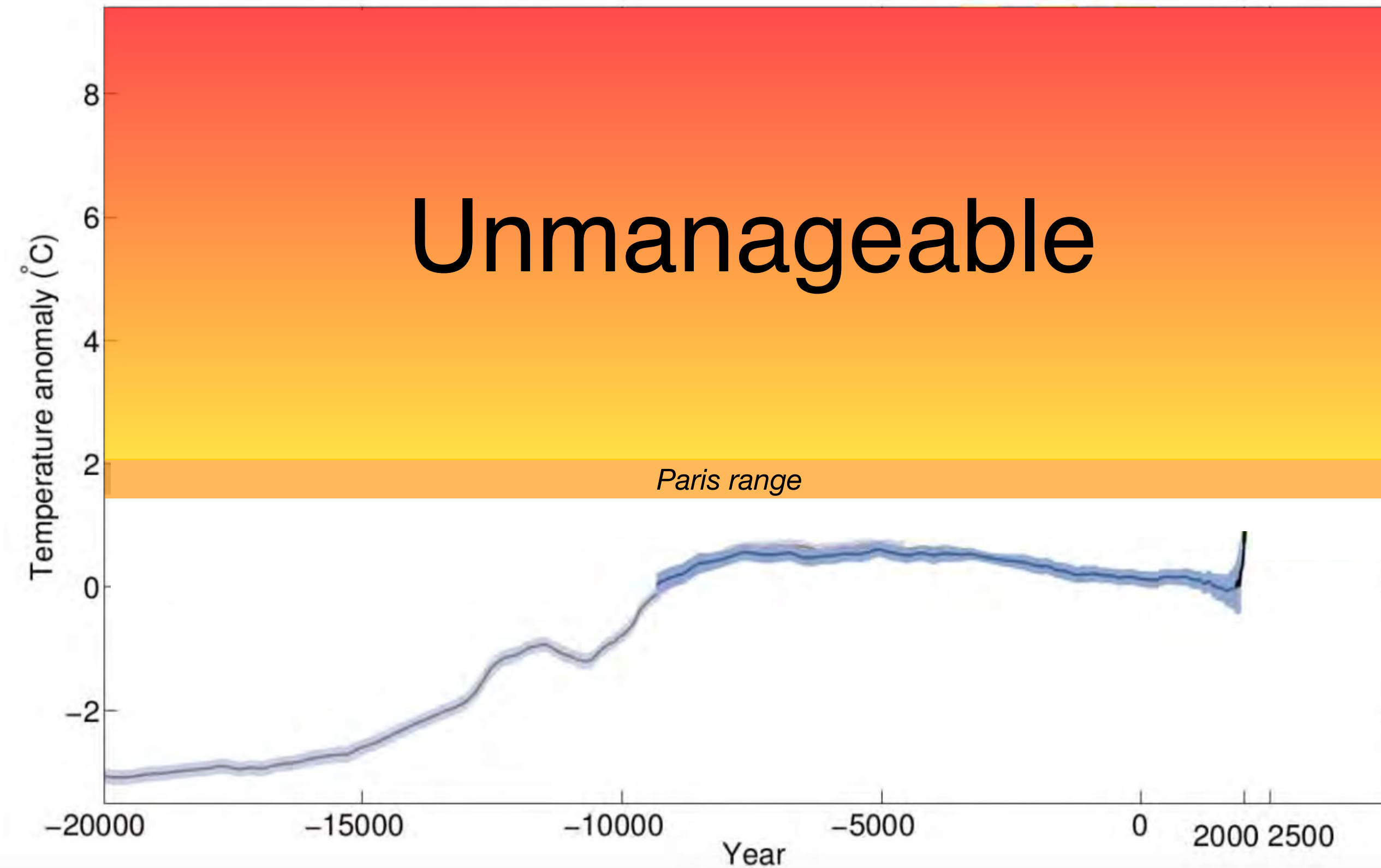
Planetary Tipping Points



Planetary Tipping Points



How Much Risk Are You Prepared to Take?





Climate change could make insurance too expensive for most people - report

Munich Re, world's largest reinsurance firm, warns premium rises could become social issue



▲ An aerial view of a neighbourhood destroyed by the 2018 wildfire in Paradise, California. Photograph: Justin Sullivan/Getty Images

Insurers have warned that climate change could make cover for ordinary people unaffordable after the **world's largest** reinsurance firm blamed global warming for \$24bn (£18bn) of losses in the Californian wildfires.

Ernst Rauch, Munich Re's chief climatologist, told the Guardian that the costs could soon be widely felt, with premium rises already under discussion with clients holding asset concentrations in vulnerable parts of the state.

"If the risk from wildfires, flooding, storms or hail is increasing then the only sustainable option we have is to adjust our risk prices accordingly. In the long run it might become a social issue," he said after Munich Re published a report into climate change's impact on wildfires. "Affordability is so critical [because] some people on low and average incomes in some regions will no longer be able to buy insurance."

Global Sea Level Rise



Global Sea Level Rise



Global Sea Level Rise







WORLD CLIMATE SUMMIT

PARIS, FRANCE, 2015

Conférence sur les Changements Climatiques 2015

COP21/CMP11

Paris France



Diplomatic Triumph



WORLD CLIMATE SUMMIT

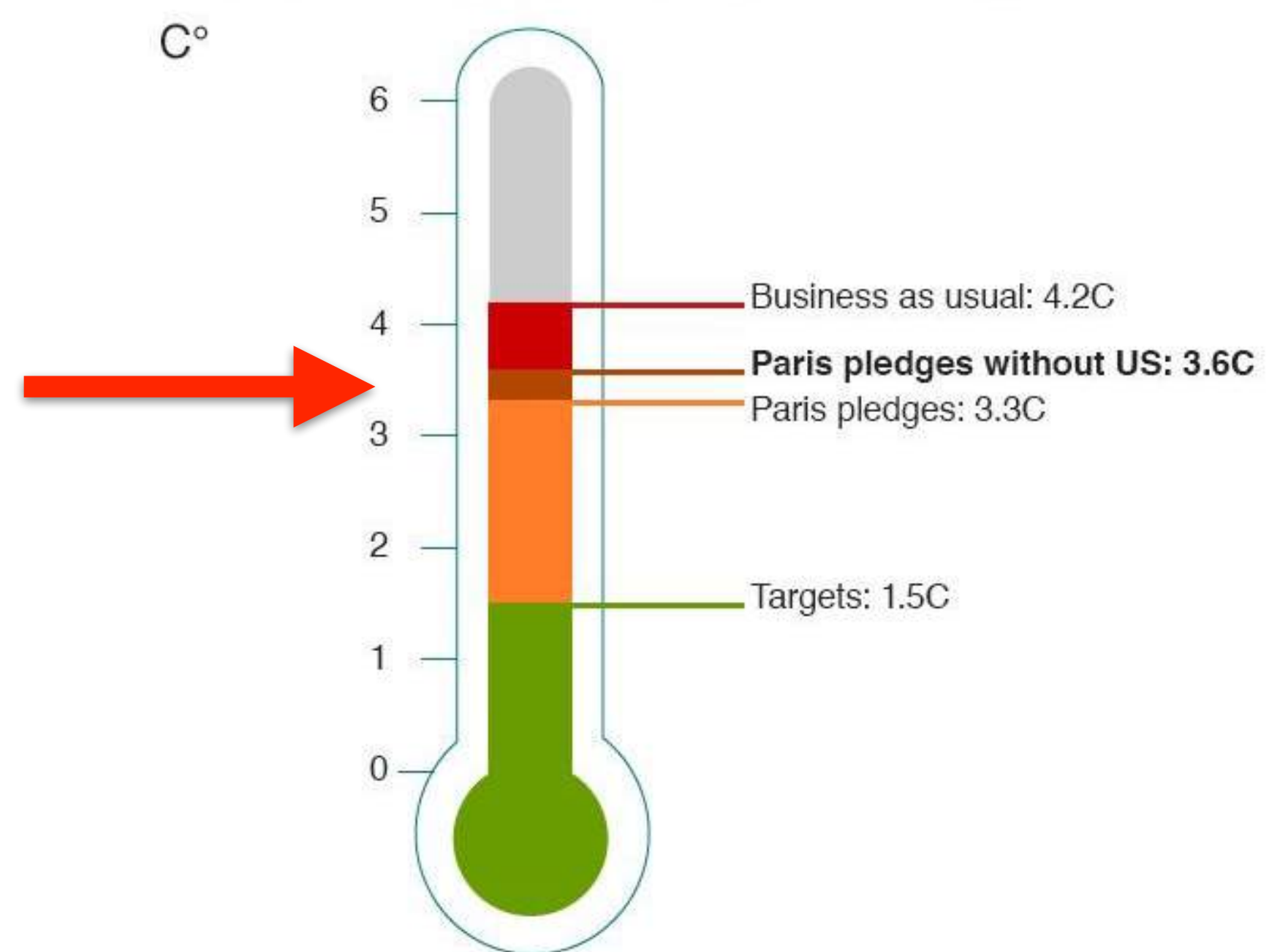
PARIS, FRANCE, 2015

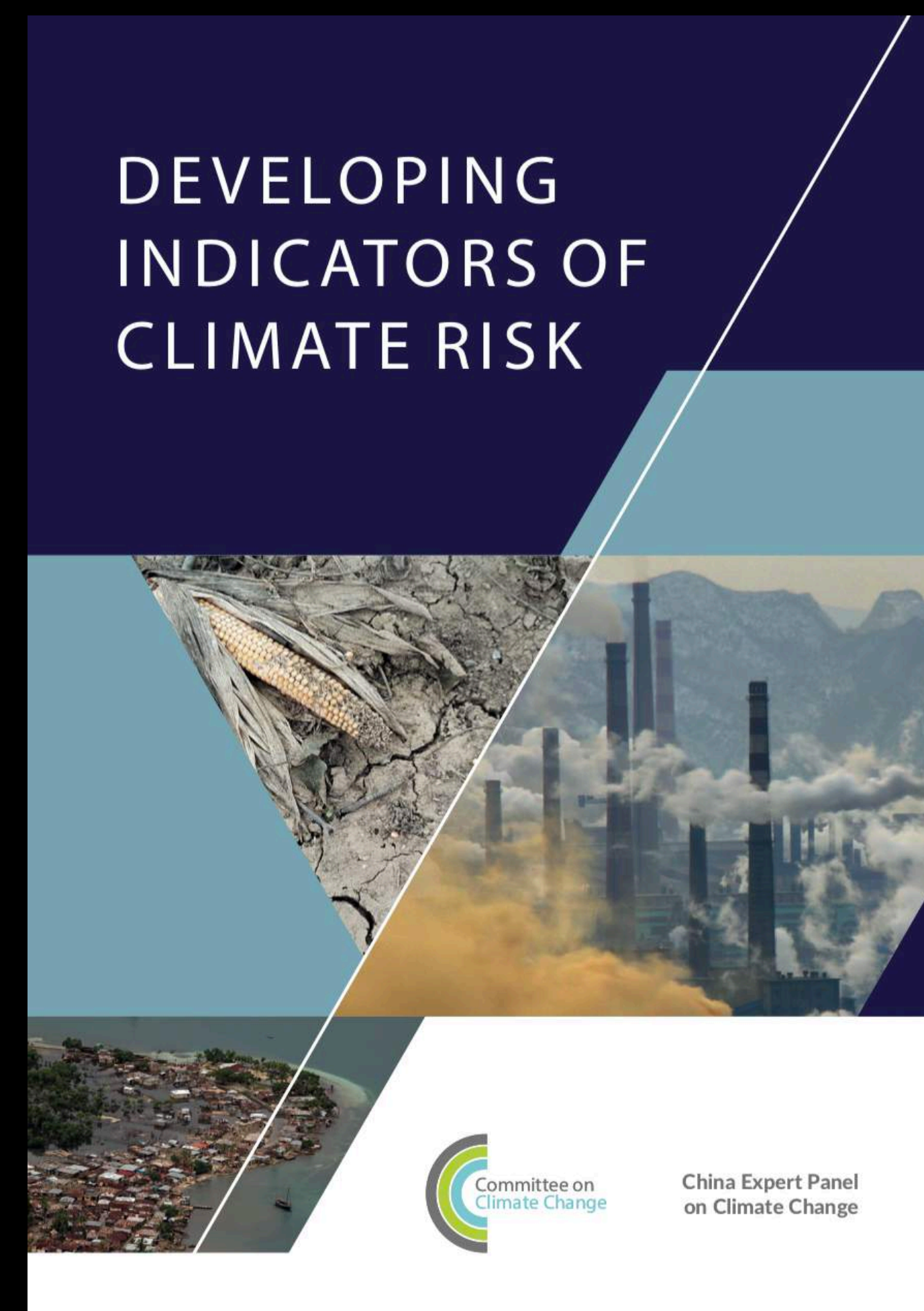
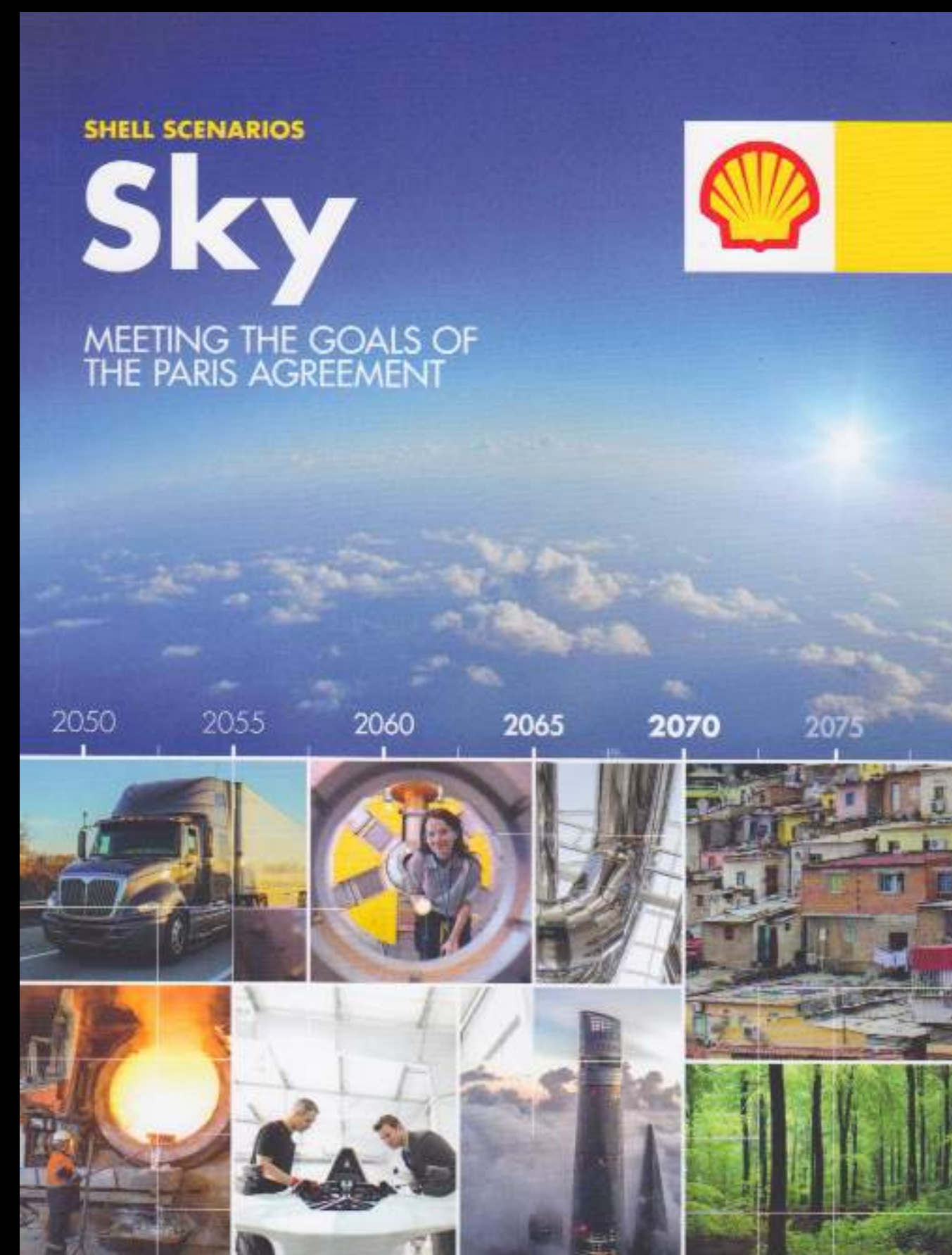
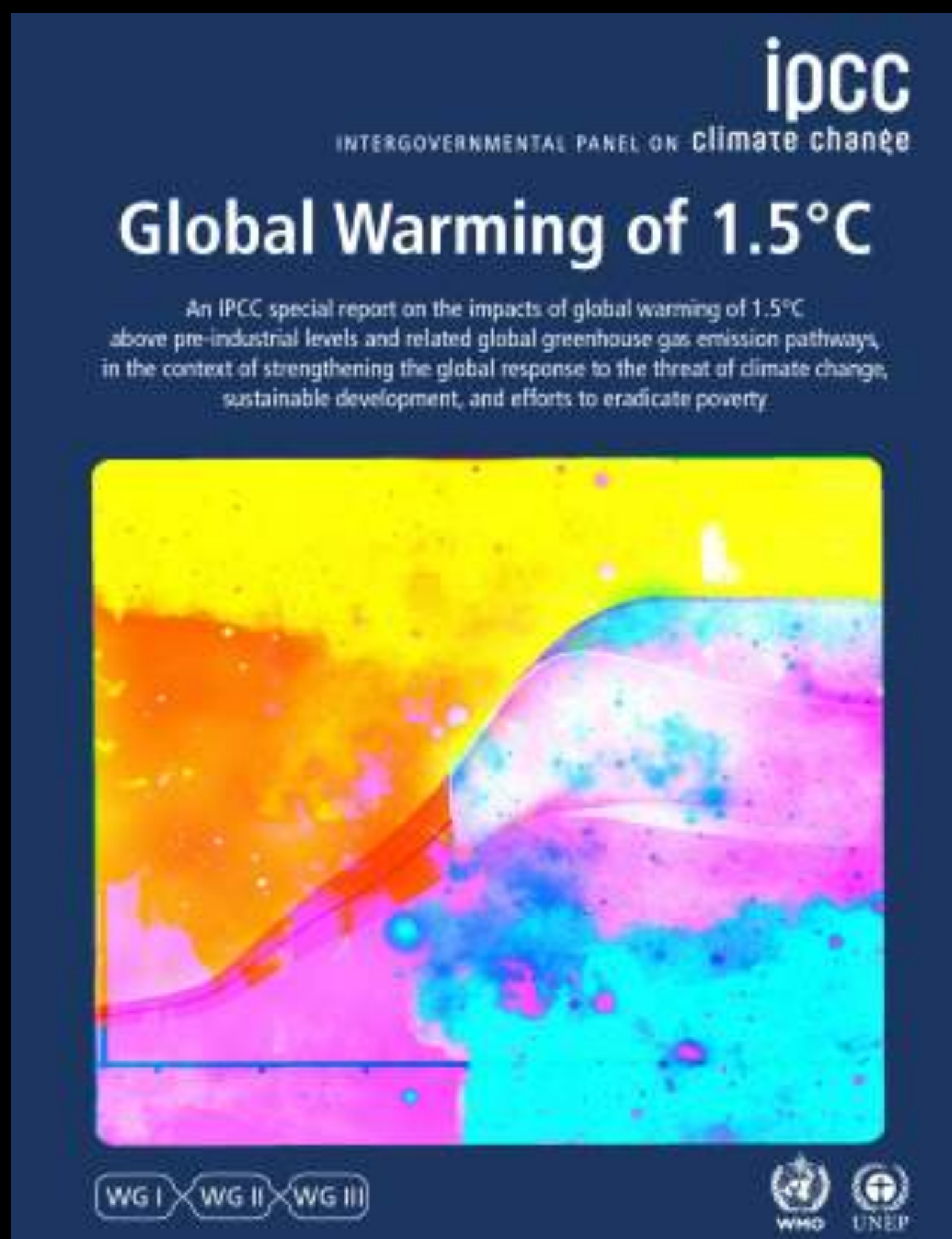


Common Goal - To hold temperatures to well below 2°C relative to preindustrial levels and to pursue efforts to limit the temperature increase to 1.5°C

Collective Plan - To cut anthropogenic emissions and to achieve a balance with removals by sinks in the second half of C21st

Increase in global temperature by 2100



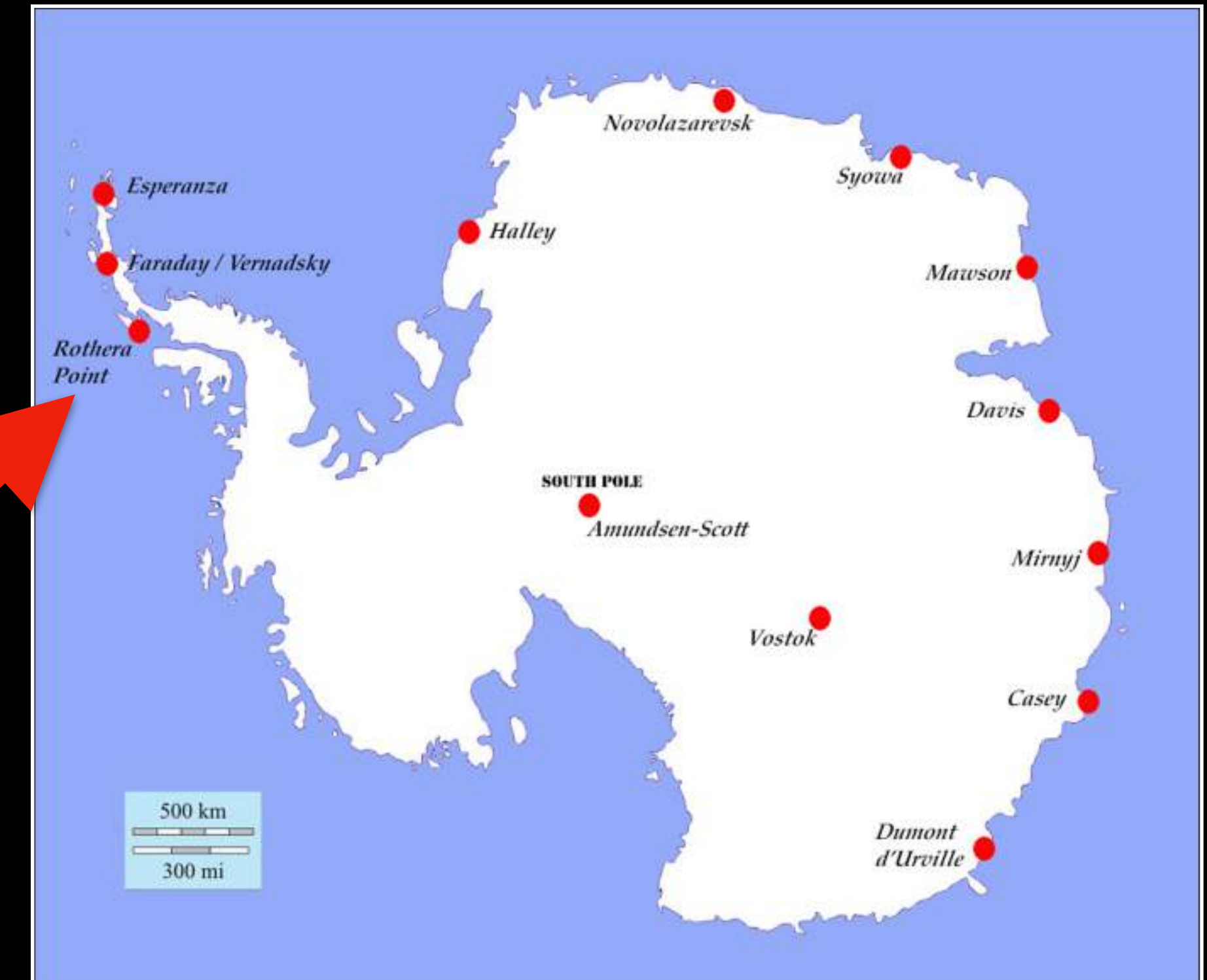


Running Out of Time



Emergency

What Can I Do?



> 20% saving



> 20% saving



Adaptation

Current projects

Previous projects

Projects categories

- [Built Environment](#) (3)
- [Business](#) (4)
- [Drought](#) (1)
- [Flooding](#) (1)
- [Health & Wellbeing](#) (6)
- [Housing](#) (2)
- [Local Authorities](#) (3)
- [Natural Environment](#) (1)
- [Overheating](#) (3)
- [Smart Cities](#) (1)
- [Transport & Infrastructure](#) (2)

Projects

Retrofitting social housing: Barking & Dagenham

The London Borough of Barking and Dagenham recently carried out a major retrofit of two tower blocks to improve them in line with Decent Homes guidelines. As part of the project LBBDD received a grant from the Greater London Authority to include a range of climate change adaptation (and mitigation) features.



The retrofit used London Climate Change Partnership's guidance [Your Home in a Changing Climate](#) as the blueprint for the adaptation features within the retrofit. This is the first time that the guidance has been used for such a large scale project.

Adaptation features included in the retrofit:

- Overheating prevention: external cladding with light colouring to reflect heat, extraction fans, blinds in the windows on S and W aspects
- Water scarcity: replacement low volume toilets and baths, replacement low flow taps, new low flow showers, water meters
- Flooding: reline existing drainage systems, one way flood valve to prevent ingress of water in case of flood, water boards on ground floor flats, water resistant cladding near ground floors

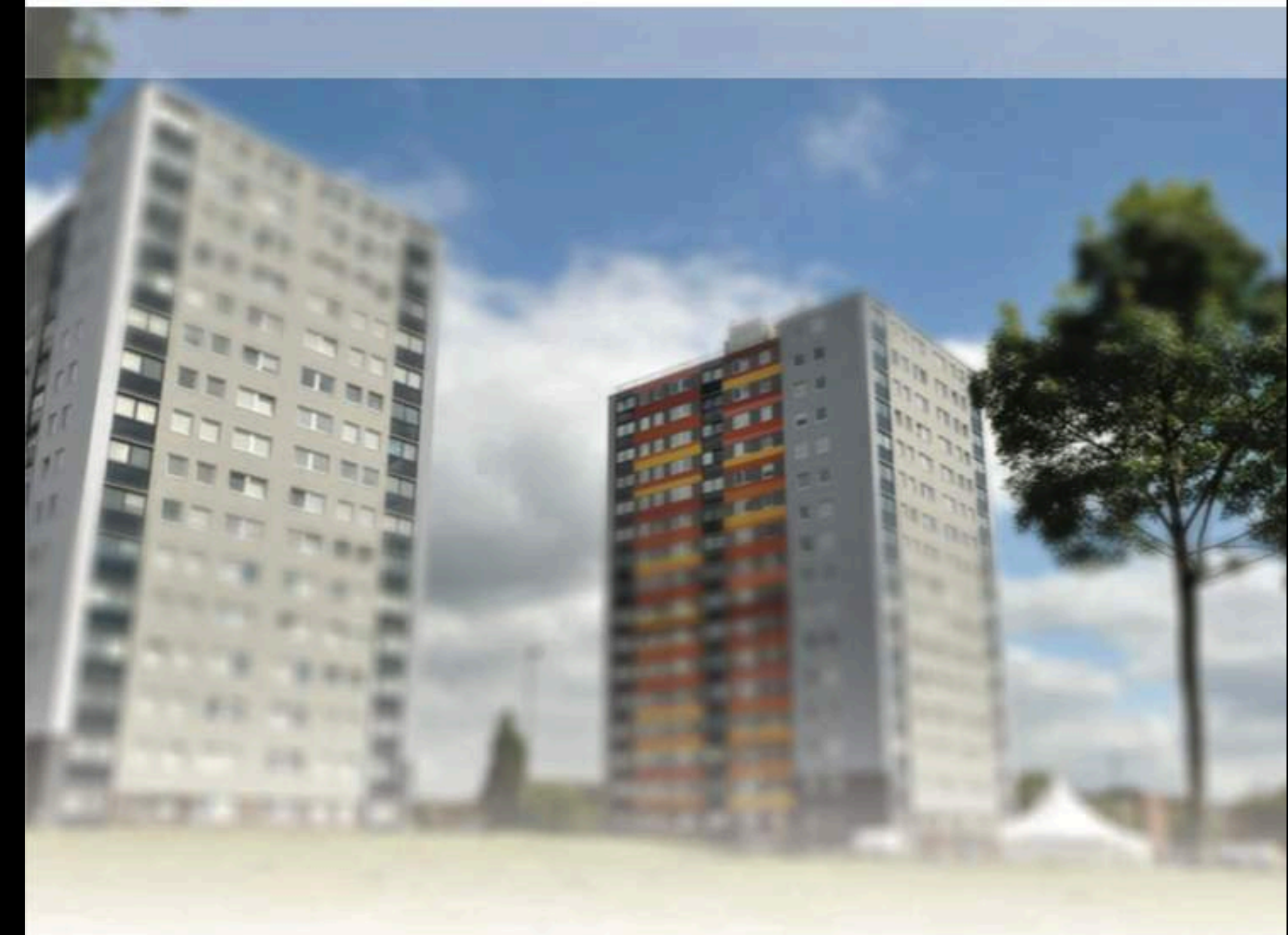
Additional features of benefit to the residents:

- Energy efficiency: new centralized gas heating instead of storage heaters, heating meters, energy efficient lighting, triple glazed windows, PV on the roof
- Security: door entry systems, CCTV
- Convenience: both lifts can now stop on all floors (used to be alternating), new centralize television satellite system
- Decent homes: new kitchens, new bathrooms

In addition to the high specification of climate change measures, the retrofit was ambitious because the extensive and intensive work occurred whilst the residents were in situ.

Because there is a great deal of housing stock of a similar age and type in this country, LCCP are producing a findings and recommendations report to learn as much as possible from this project – highlighting the most successful aspects of the work, lessons learnt, cost-benefit and scalability.

The evaluation report was published in January 2013 – download [Your social housing in a changing climate](#).



**Your social housing in
a changing climate**

January 2013

PERFORMANCE

PERFORMANCE SUMMARY

This is a summary of our performance across all of our commitments shown as Achieved, Progressing, Behind or Not achieved.

ECONOMIC

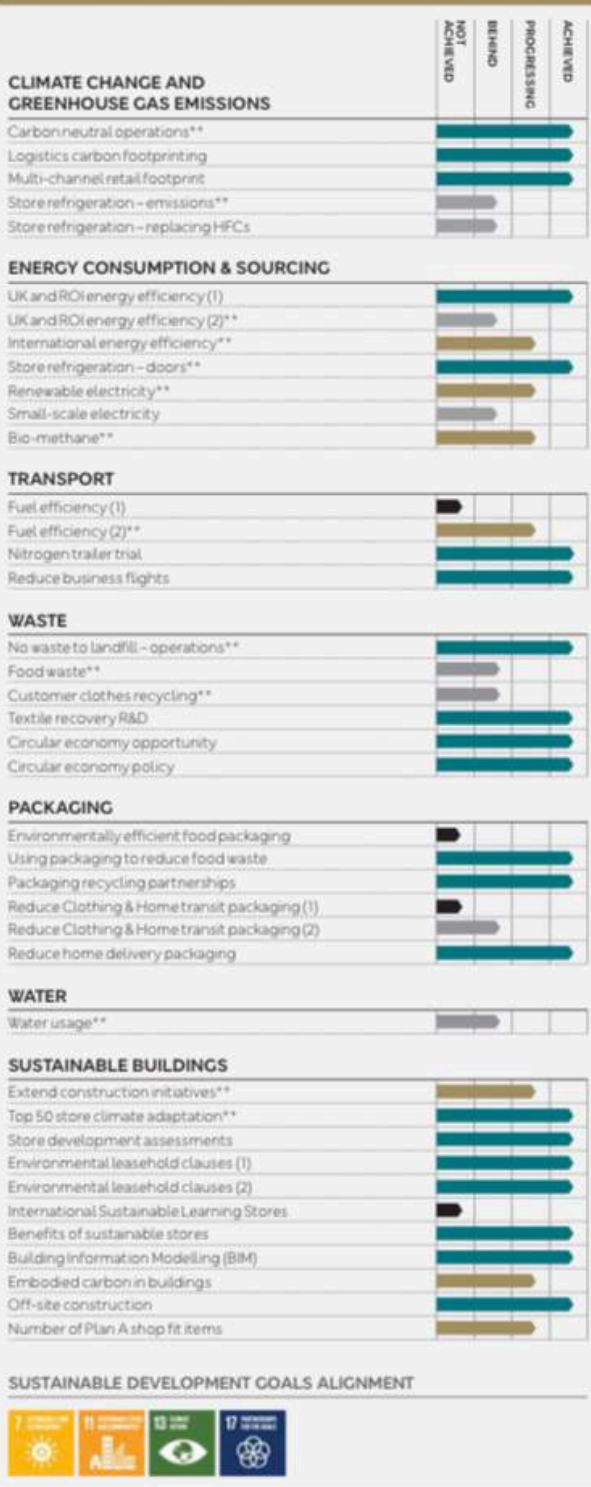
PAGES 14-16

ENVIRONMENTAL

PAGES 17-23



** Assured by DNV CL



ACHIEVED 64
PROGRESSING 25
BEHIND 11
NOT ACHIEVED 6

SOCIAL

PAGES 24-28

SUPPLY CHAIN

PAGES 29-33



M&S Plan A



Intergenerational Climate Justice



Over to You

Opportunities for a “Climate Change Commitment”...

1. What consistent and meaningful targets can property owners set to drive urgent action in mitigating climate change risks?
2. How should property owners disclose their approach and performance on climate change resilience in order to encourage greater transparency & fair comparison?
3. How can property owners embed climate change resilience into investment & asset management practices?
4. How should property owners seek to influence their stakeholders to help them meet these commitments?

Better Buildings Partnership

AberdeenStandard
Investments

AVIVA
INVESTORS

Blackstone

British
Land

bruntwood

CADOGAN

CANARY WHARF
GROUP PLC

Capital &
Regional

CBRE
GLOBAL
INVESTORS

CLS Holdings plc

CORDING
REAL ESTATE GROUP

DWS

31
MEMBERS

GREAT
PORTLAND
ESTATES

GROSVENOR

Hammerson

HERMES
INVESTMENT MANAGEMENT

intu

Landsec

+£200bn
AUM

LaSalle
INVESTMENT MANAGEMENT

Legal &
General
INVESTMENT MANAGEMENT

LOW
CARBON
WORKPLACE
Partnership

lendlease

M&G
REAL ESTATE

NORGES BANK
REAL ESTATE MANAGEMENT

+450m
SQ FT

Schroders

SEGRO
WHERE BUSINESS WORKS

Shaftesbury

nuveen
REAL ESTATE

THE CROWN
ESTATE

Transport
for London

WORKSPACE

BBP | BETTER
BUILDINGS
PARTNERSHIP

