

Climate change: The big picture

World Economic Forum Global Risk Report 2023

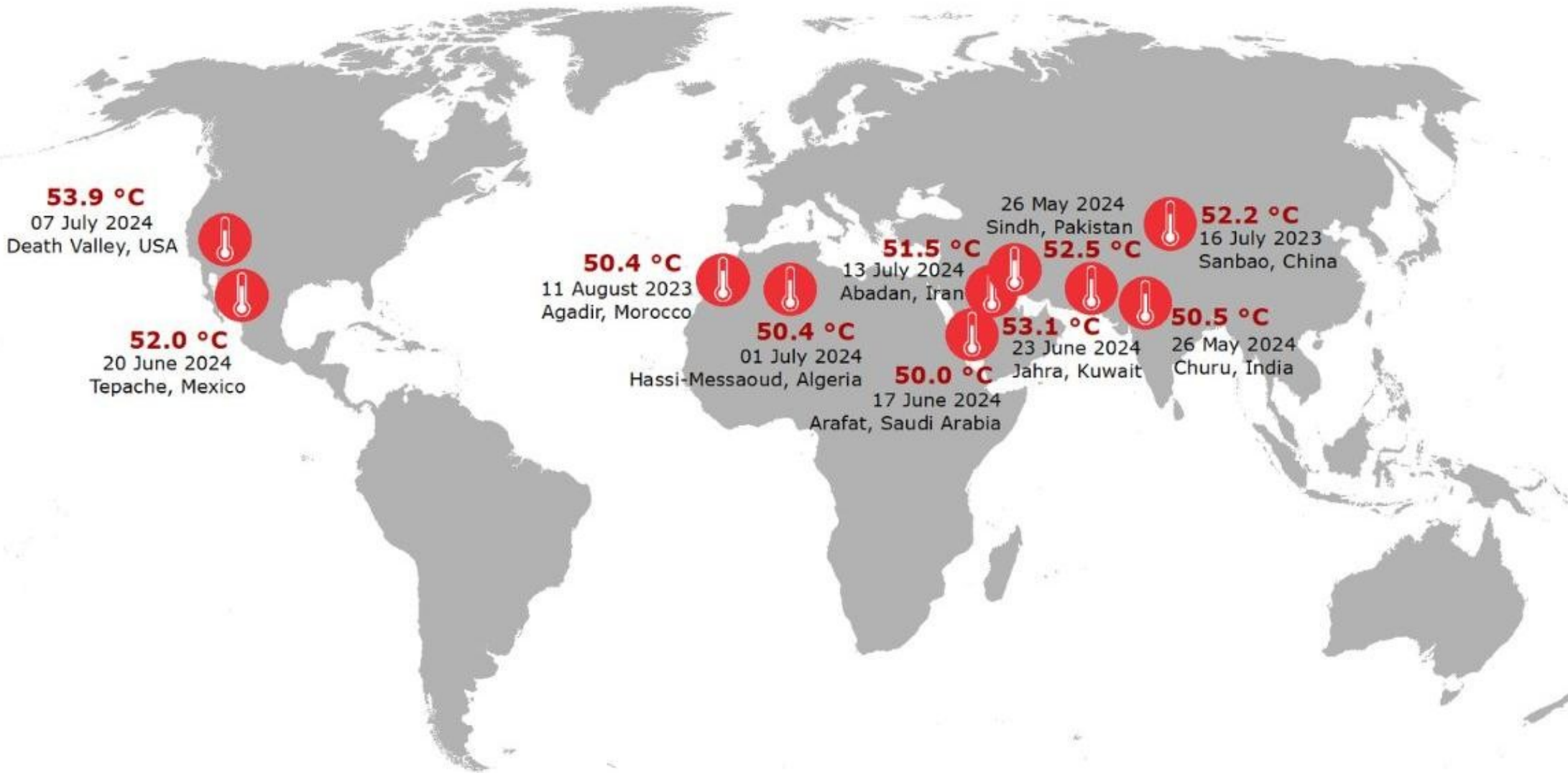
- 1 Failure to mitigate climate change
- 2 Failure of climate-change adaptation
- 3 Natural disasters and extreme weather events

9 Geoeconomic confrontation

10 years

- 1 Failure to mitigate climate change
- 2 Failure of climate-change adaptation
- 3 Natural disasters and extreme weather events
- 4 Biodiversity loss and ecosystem collapse
- 5 Large-scale involuntary migration
- 6 Natural resource crises
- 7 Erosion of social cohesion and societal polarization
- 8 Widespread cybercrime and cyber insecurity
- 9 Geoeconomic confrontation
- 10 Large-scale environmental damage incidents

Climate extremes - faster than forecast



Daily temperatures of 50+°C from July 2023 to July 2024

“Near unliveable” heat

“Push ourselves to 2.5°C...
Over one-third of planet
around the equatorial regions
will be uninhabitable because
you will pass the threshold of
health.” — Prof. Johan
Rockström, Director Potsdam
Institute

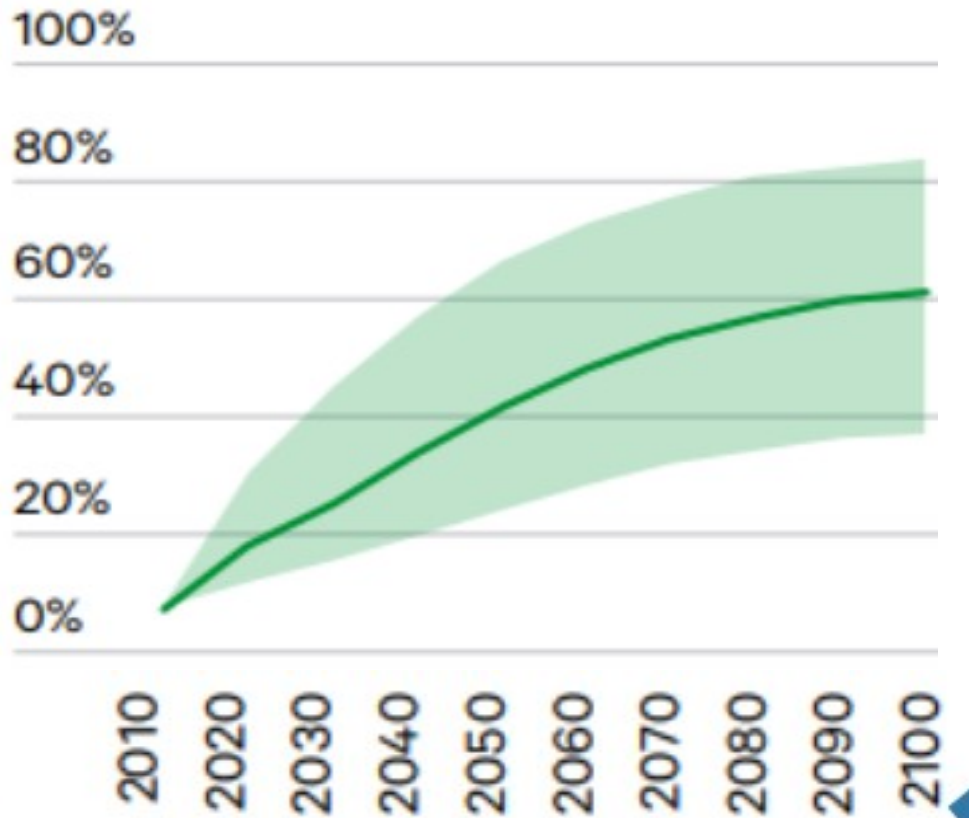
Katherine NT

239 - 297 days over 35°C
42 - 100 days over 40°C
157 - 215 nights above 25°C

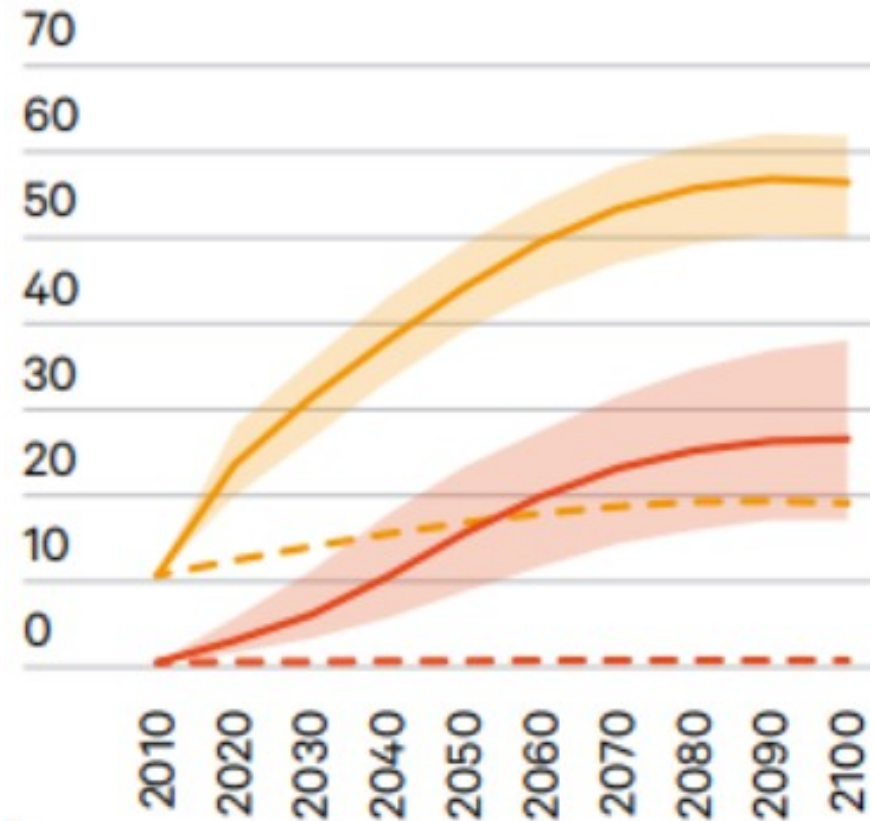
Source: "Quantifying the human cost of global warming"²³

Projected zone of “near unliveable” heat conditions at 2.7C (~2060)

Some projected impacts for Australia



By 2050, 40% of continental cropland will experience drought of 3 months or more each year



By 2050, 40 million people (80%) of the population will experience heatwaves and major heatwaves each year

Global conflict

Impacts likely to be locked in for the period 2040-50 unless emissions rapidly decline include:

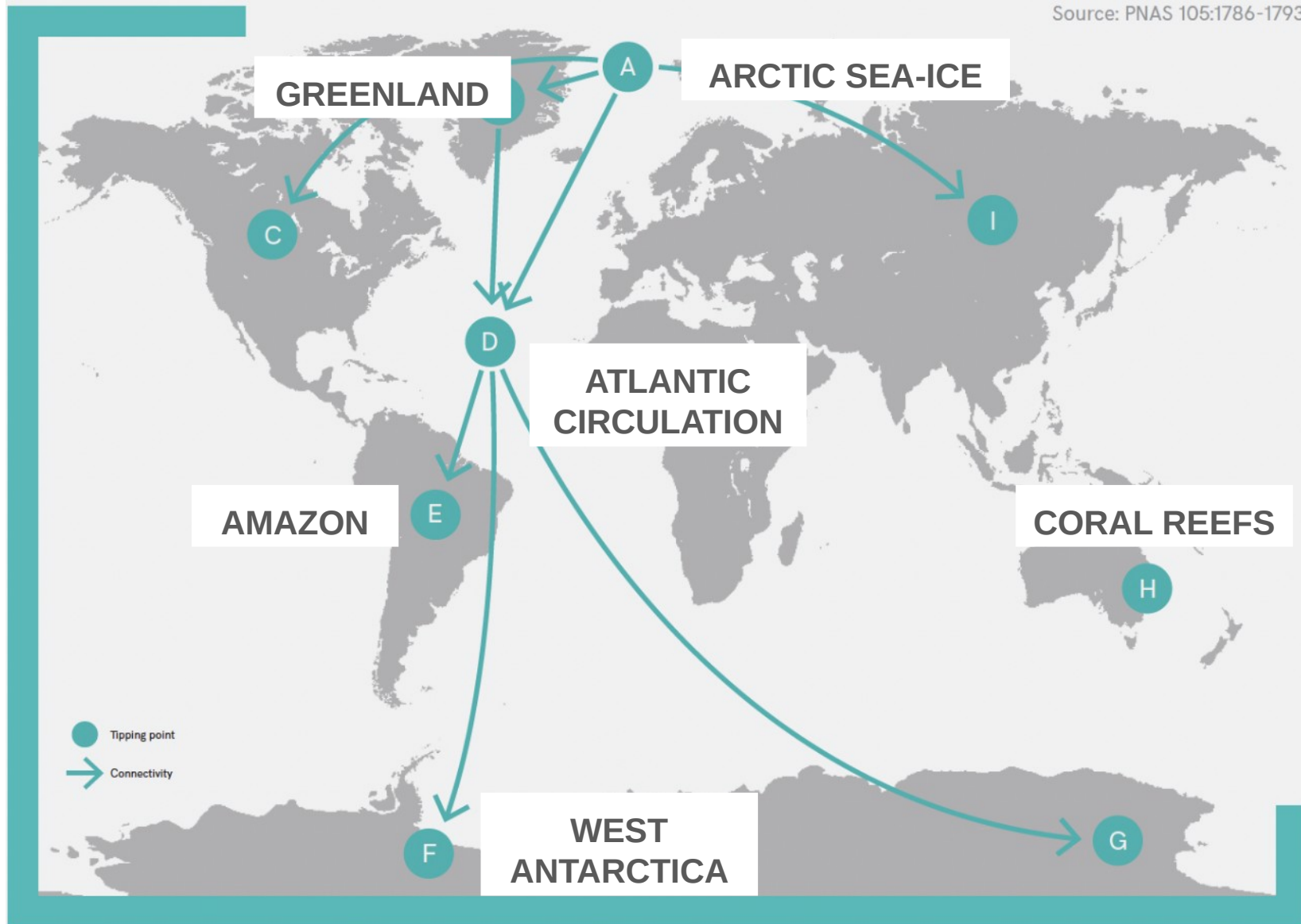
- a 30 per cent drop in crop yields by 2050;
- while food demand will be 50 per cent higher.

Cascading climate impacts will “drive political instability and greater national insecurity, and fuel regional and international conflict”.

chathamhouse.org/2021/09/climate-change-risk-assessment-2021

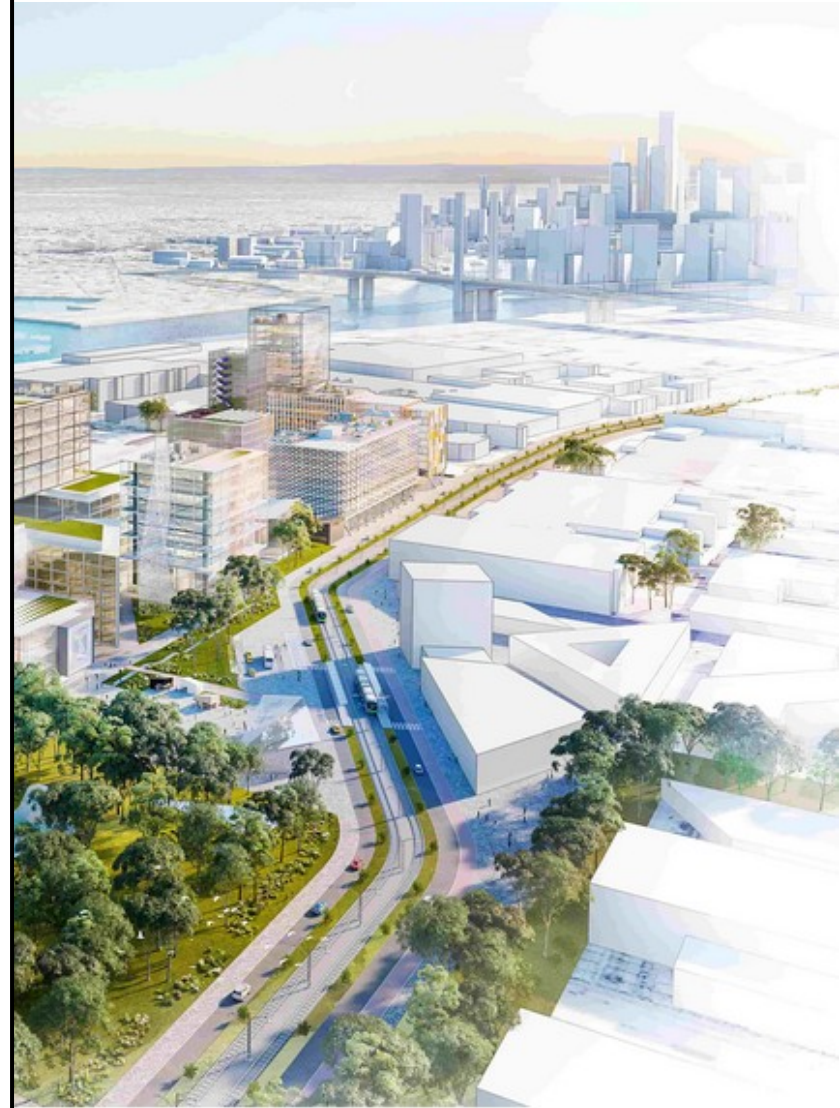


Systemic risks: Tipping points



Fishermans Bend

“Australia’s largest urban renewal project ... by 2050 will be home to approximately 80,000 residents and provide employment for up to 80,000 people with a plan for parks, schools, roads, transport and community facilities and services to ensure liveability as the precinct grows over the next 30 years ... supported by a suite of evidence-based research reports, strategies and plans.”
(fishermansbend.vic.gov.au)



Fishermen's Bend: 2 metres sea-level rise + 1 metre storm surge



Role of local government

Advocating to higher levels of government

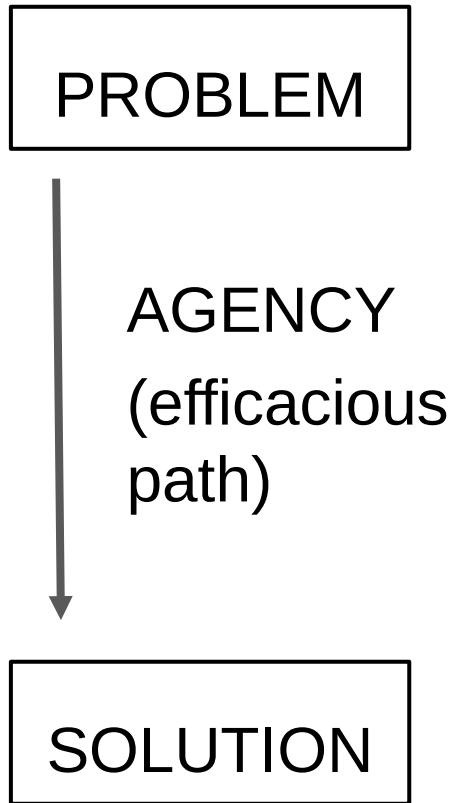


Changing councils own behaviours

Working with other councils

Engaging with and supporting communities and local actions

“Hope v. fear”: public health education



Fear

courage

Hope



“The very act of trying to look ahead and to discern possibilities and offer warnings is in itself an act of hope.”

– Octavia Butler, quoted in Rebecca Solnit’s *Orwell’s Roses*