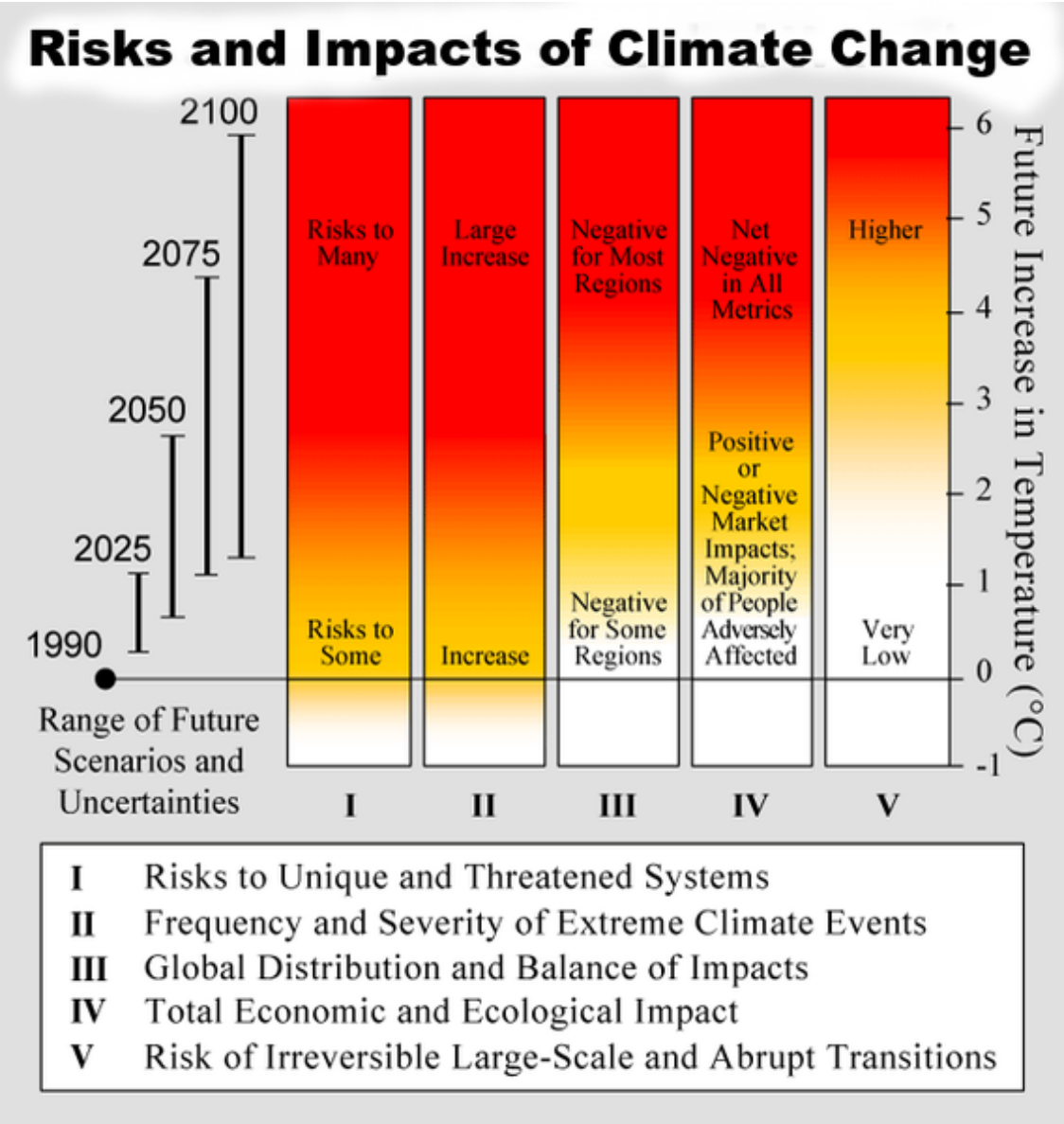
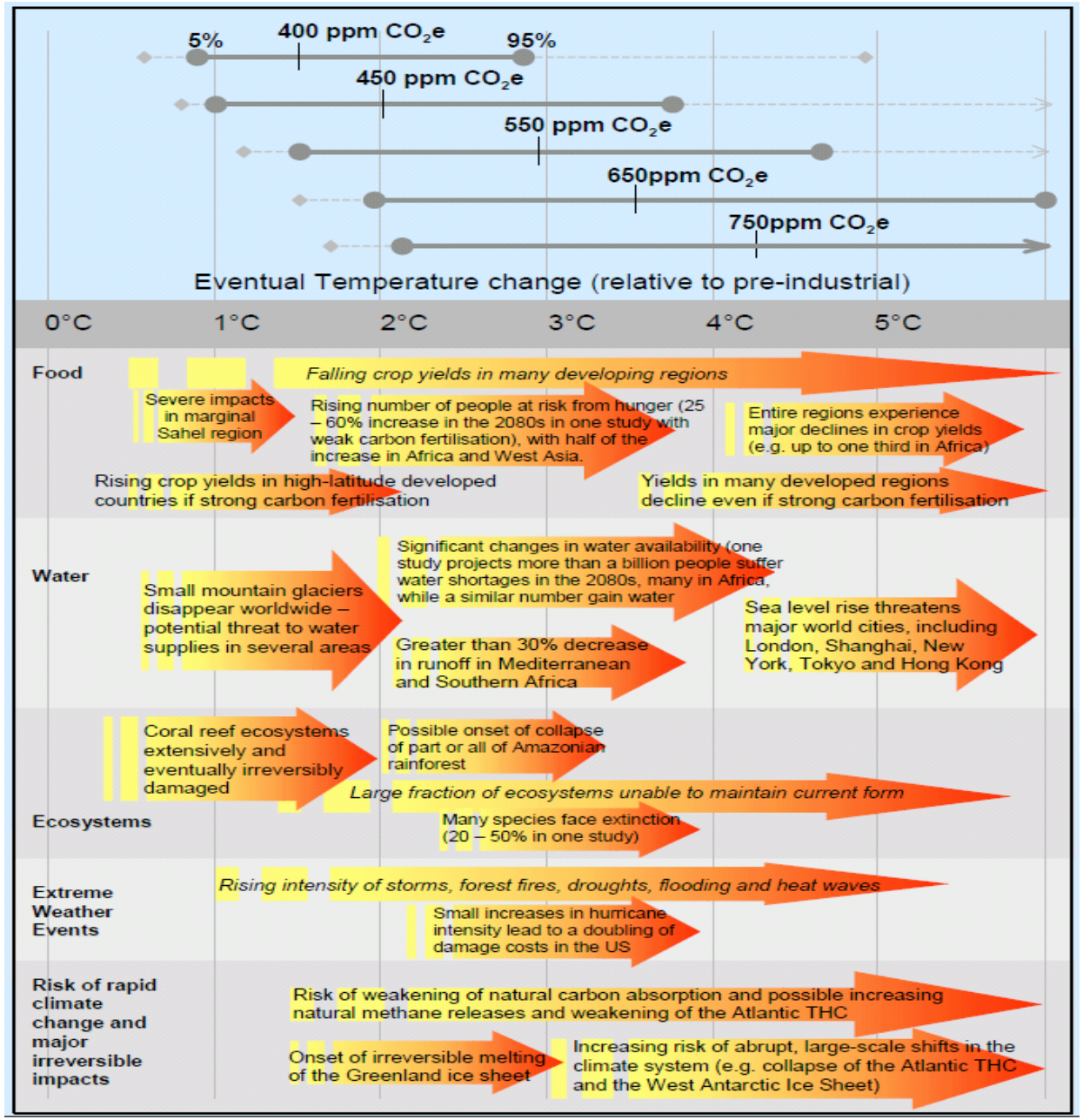
# VV&UQ in Policy making

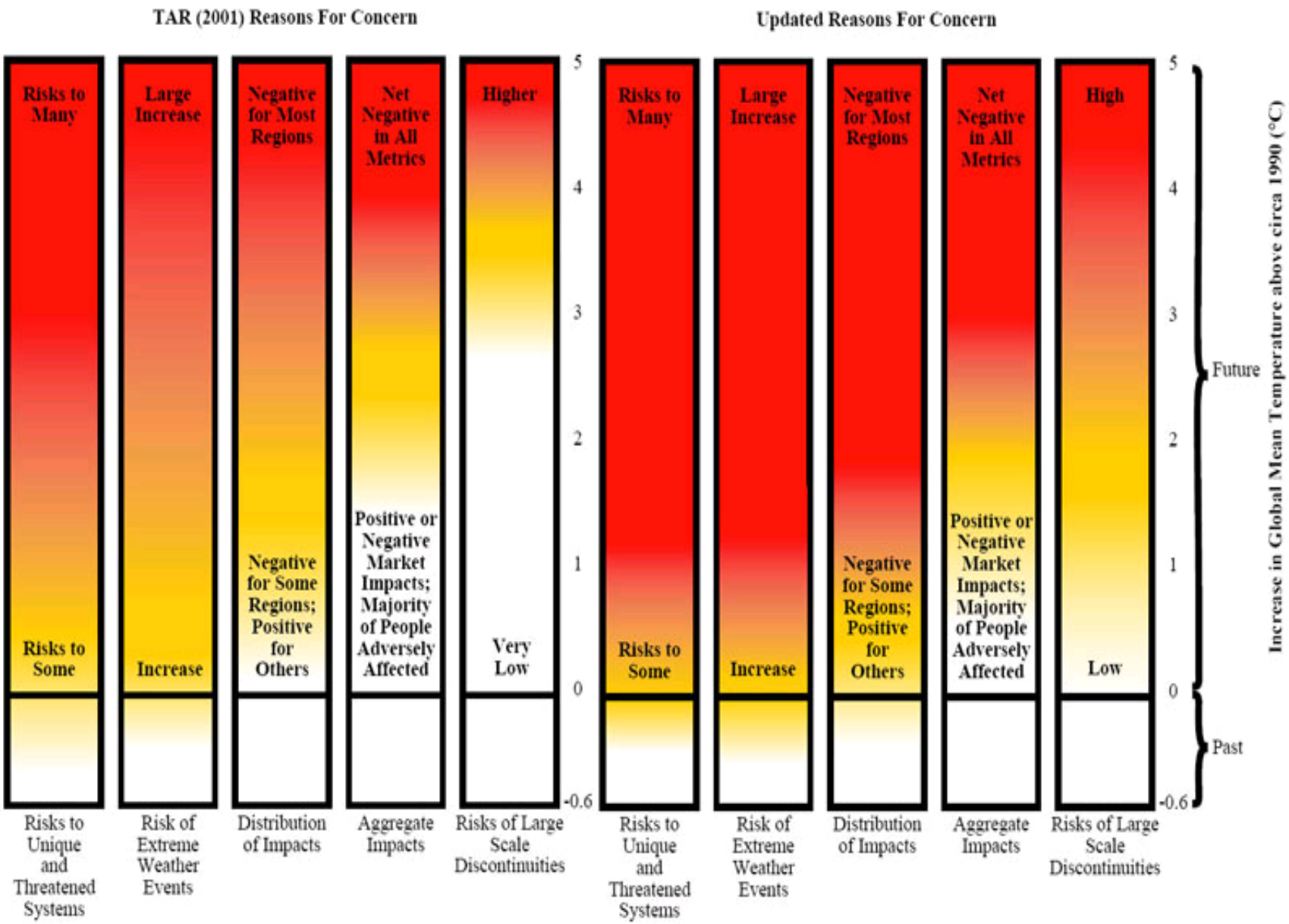
Kath Rowley
Climate Policy Initiative

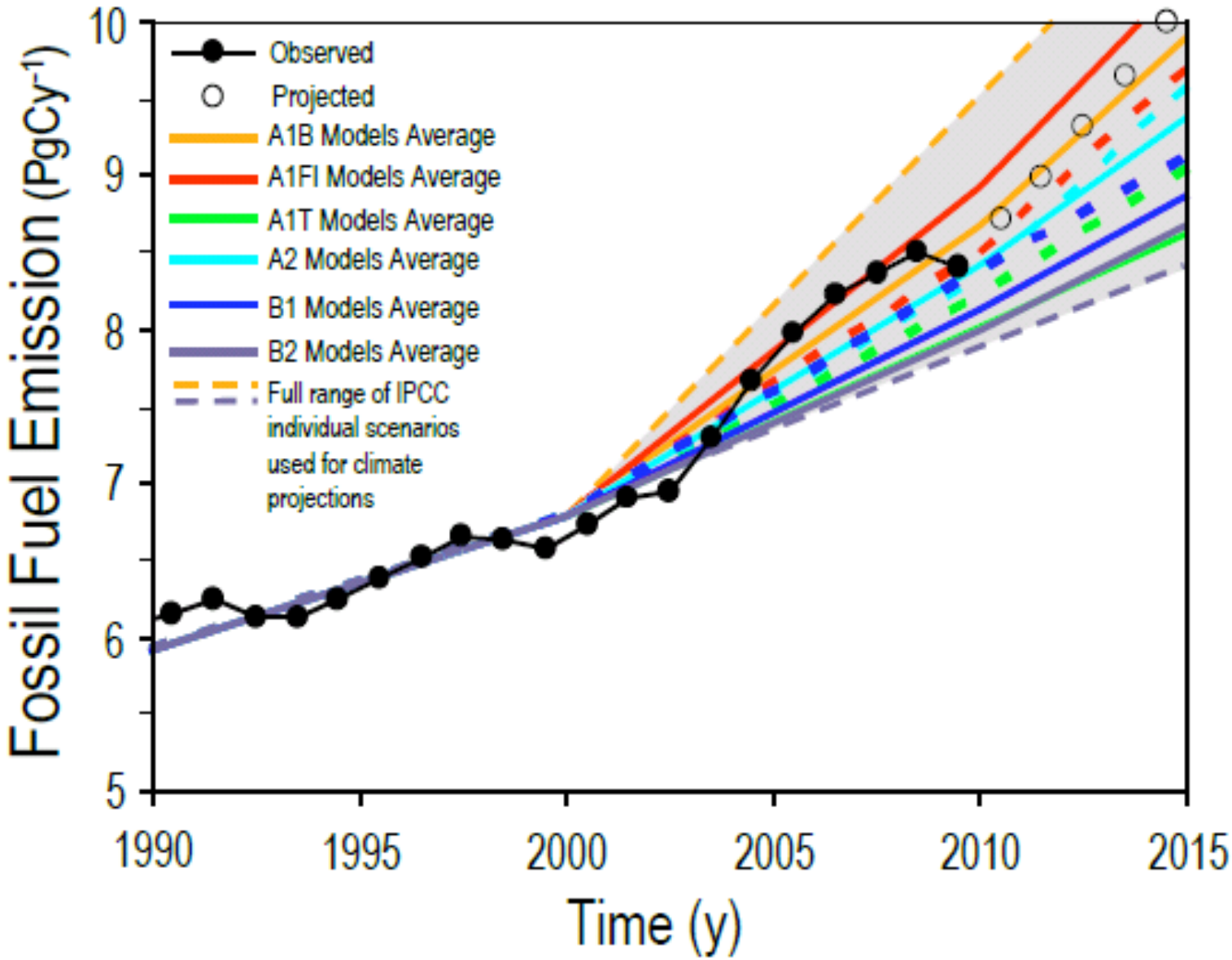



IPCC Third Assessment Report (2001)




Stern Report, Executive Summary (2006)


TAR (2001) Reasons For Concern
Updated Reasons For Concern
Risks to Many
Risks to Some
Large Increase
Increase
Negative for Most Regions
Negative for Some Regions; Positive for Others
Net Negative in All Metrics
Positive or Negative Market Impacts; Majority of People Adversely Affected
Higher
Very Low
High
Low
5
4
3
2
1
0
-0.6
Future
Past
Increase in Global Mean Temperature above circa 1990 (°C)
Risks to Unique and Threatened Systems
Risk of Extreme Weather Events
Distribution of Impacts
Aggregate Impacts
Risks of Large Scale Discontinuities




Global Carbon Project, Carbon Budget 2009 (2010) at page 12

Valuation uncertainties

Increasing costs →

Quantified economic costs

| Climate uncertainties ↓ Increasing costs → | Market (direct) value | Non-market (indirect use and options) | Existence and bequest value |
|---|---|---|---|
| Mean climate | Global studies | Some global studies (as WTP) | None |
| Variability & extremes | Regional studies, some allowance in global studies | Some local and regional studies | None |
| Thresholds & singularities | Few sensitivity studies | None | None |

Jones and Preston (2006) at page 11.