### Analysis and risk management of overshoot futures

Kristie L. Ebi, Ph.D., MPH 1 August 2013

	What policymakers are asking
Can the scientific community provides answers?	
Yes	Focus of research & assessment
No	Research agenda

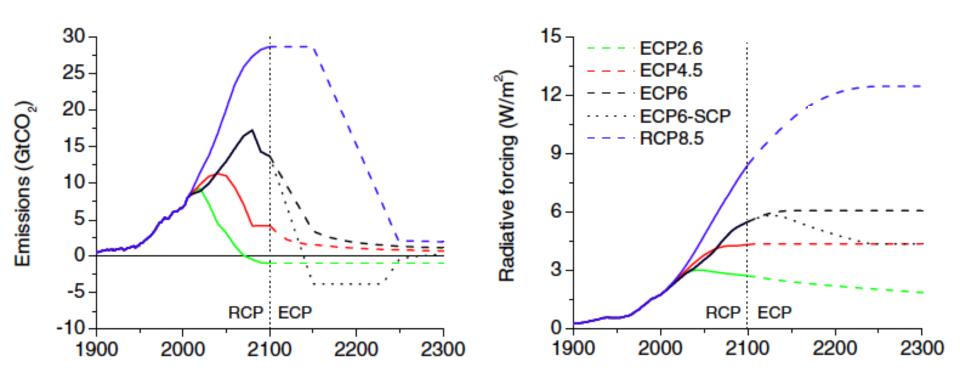
	What policymakers are asking	What policymakers are not asking
Can the scientific community provides answers?		
Yes	Focus of research & assessment	Should be making policymakers aware
No	Research agenda	Emerging issues

#### **Why Overshoots**



#### **Emissions**

#### **Radiative Forcing**



- For long-term CMIP experiments, an extension of each RCP was produced using a simple climate model (MAGICC)
- These are not IAM results and do not have underlying socioeconomic assumptions
- Assume static land use post-2100
- Designed in consultation with CMIP and IAV representatives

van Vuuren et al. 2011

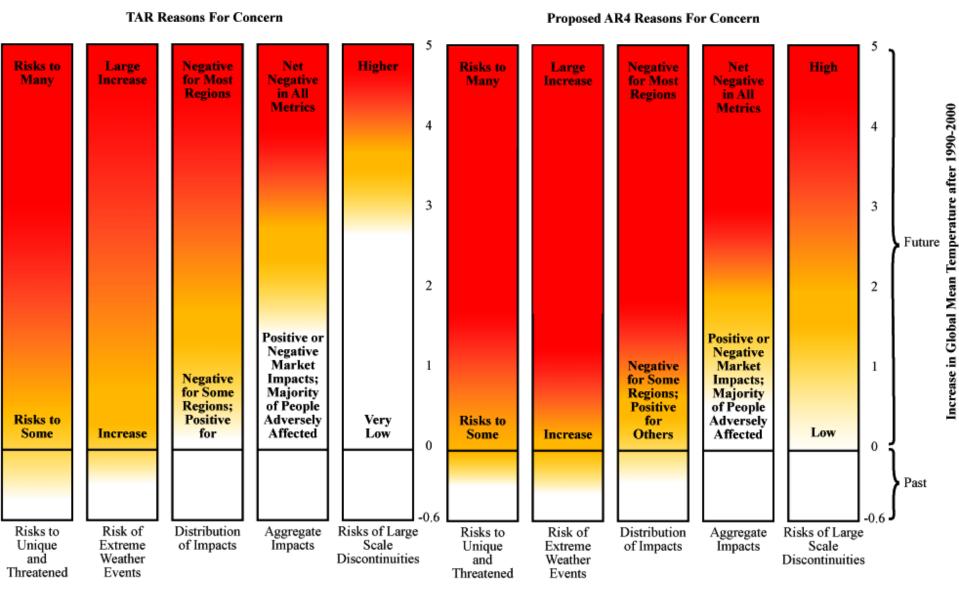
## Climate change risks = f {Hazard, Exposure, Vulnerability}



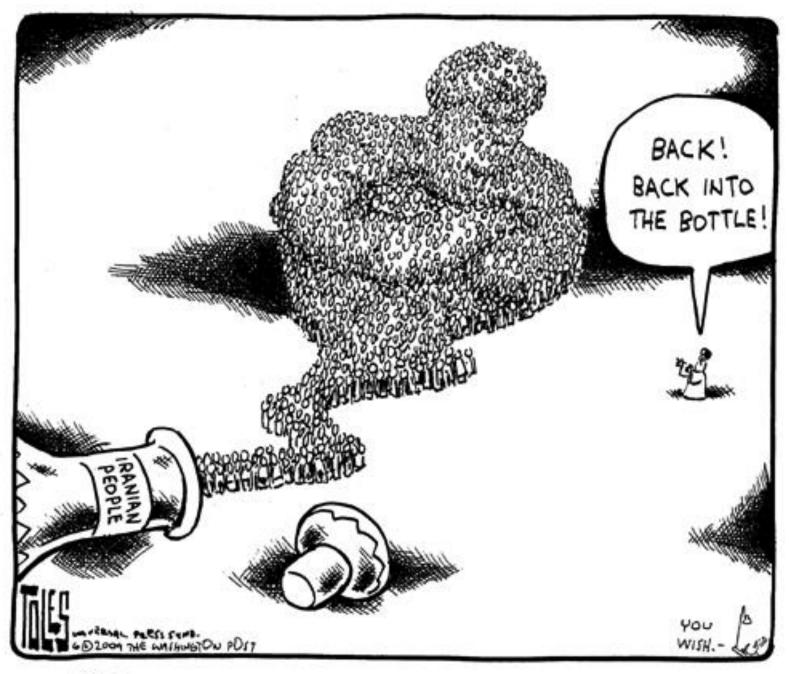




### **Reasons for Concern**

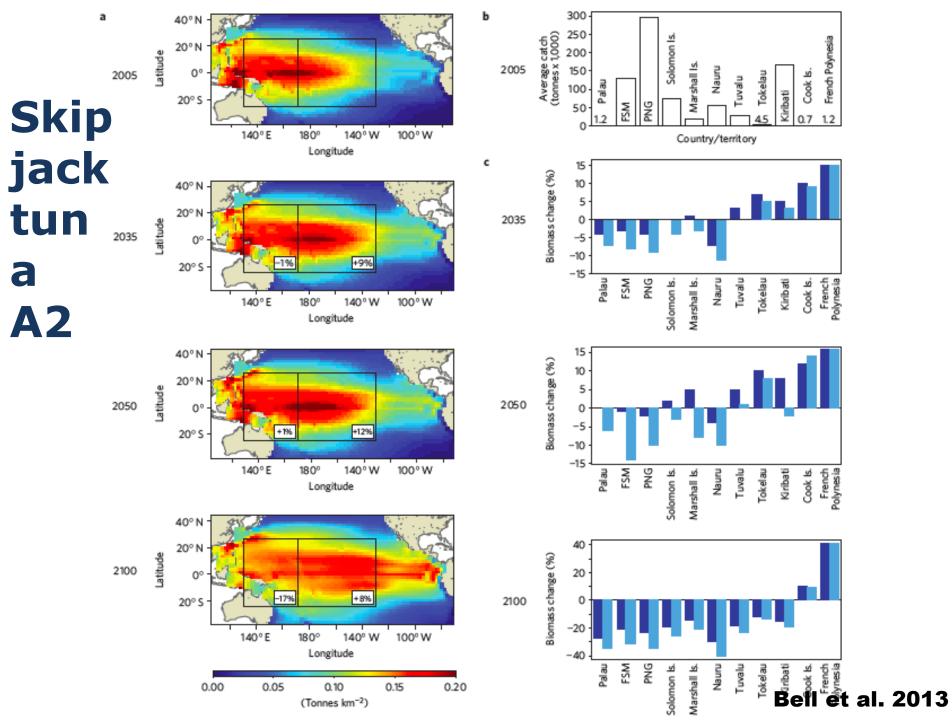


#### Smith et al. 2009

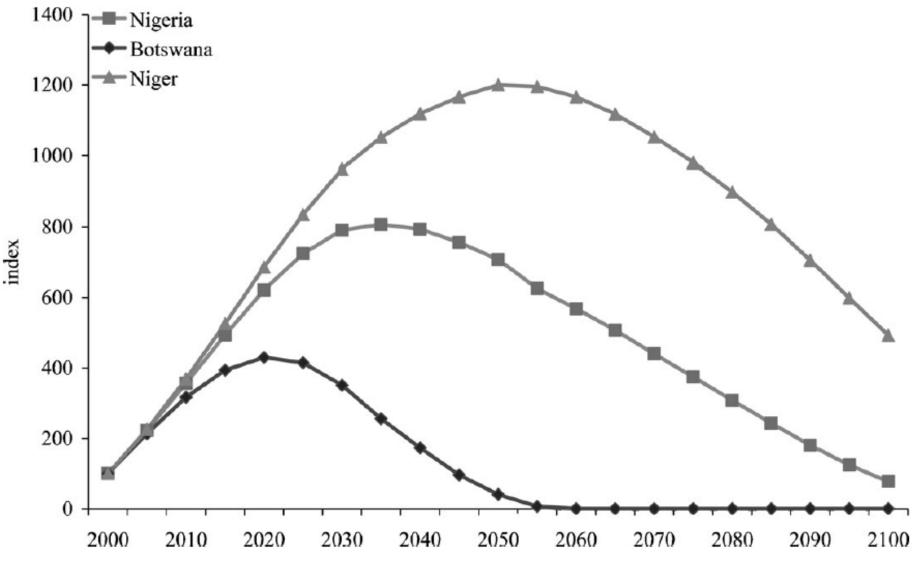








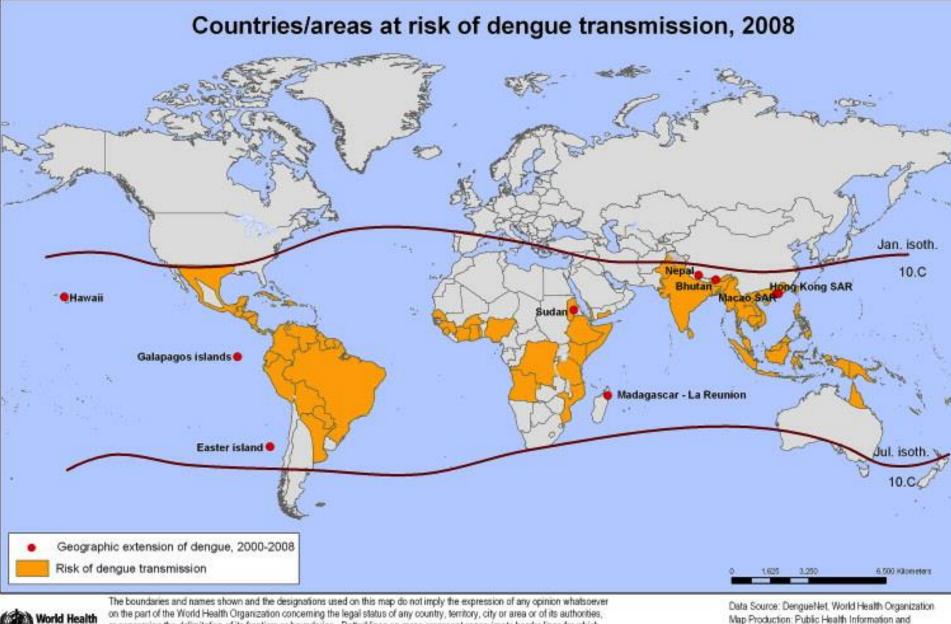
### Malaria deaths due to climate change, SRES A1B



Tol et al. 2007





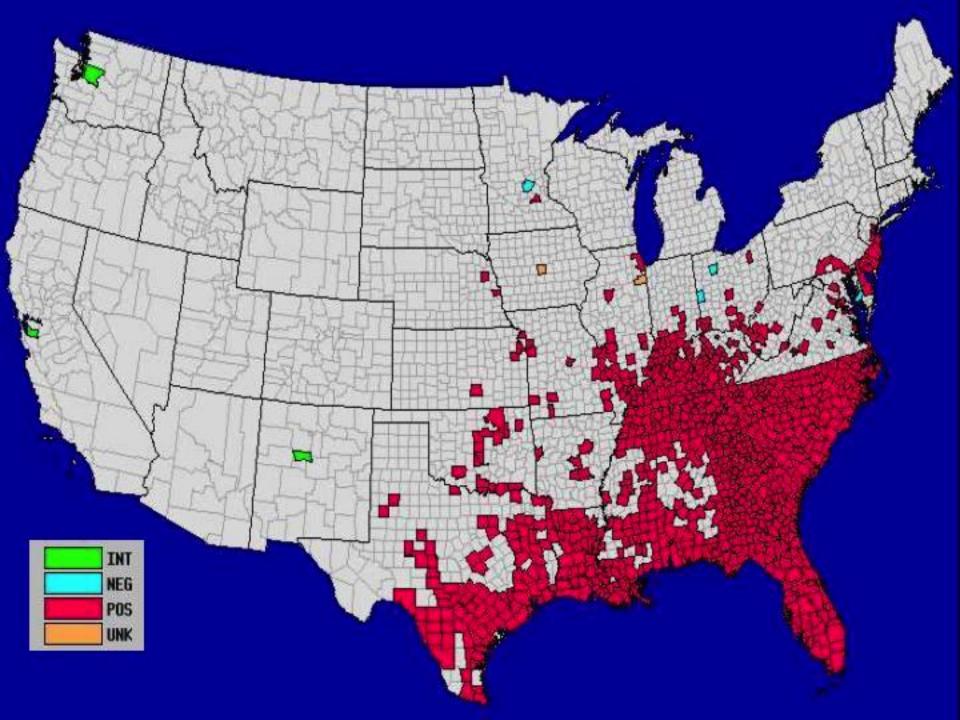


or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which Organization

there may not yet be full agreement.

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Map Production: Public Health Information and Geographic Information Systems (GIS)

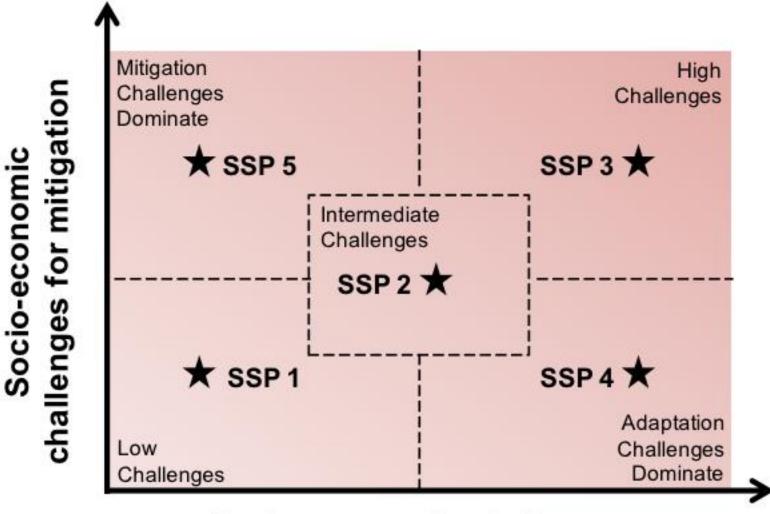








# **Shared Socioeconomic Pathways**



#### Socio-economic challenges for adaptation

**O'Neill et al. 2013** 

