



Science and International Risk Governance

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Overview of lecture

- *Why* science in international risk governance?
- *What* do we mean by science in international risk governance?
- *When* should different science-based approaches be used in international risk governance?
- *How* can scientists and experts participate in new modes of science-based decision-making?
- Final reflections: too much science or too little?



Some terminology

- Governance
 - Group decision-making to address shared problems; directed to the management of interdependence (Esty)
 - Focus on decision-making processes rather than specific substantive outcomes
 - Significant “behind-the-border” focus

- Risk
 - Probability x consequences (technical perspective)
 - Hazard arising from human activities (general meaning)

- “International risk governance” = international or decision-making processes concerned with the identification and management of hazards that are a consequence of interdependence



Why science?

- In areas of international risk governance concerned with health and environmental issues, science/experts occupy central place
- What explains this key role for science in international risk governance?
 - Legitimacy conferred by expertise
 - Rise of risk and risk based decision-making in international law and governance



What is science in international risk governance?

- Different understandings/concepts of science
- Positivist understanding: science as observation of fact
- Constructivist understanding: science as social construct
- Scientific uncertainty
- Normal vs post-normal science



Sound science vs precaution

- Different understandings of science underpin different approaches to risk governance
- “Sound science”, “evidence-based” decision-making
- Precautionary principle/approach
- Both approaches are *science-based* but reflect different worldviews as to the relative importance of scientific evidence vs uncertainties

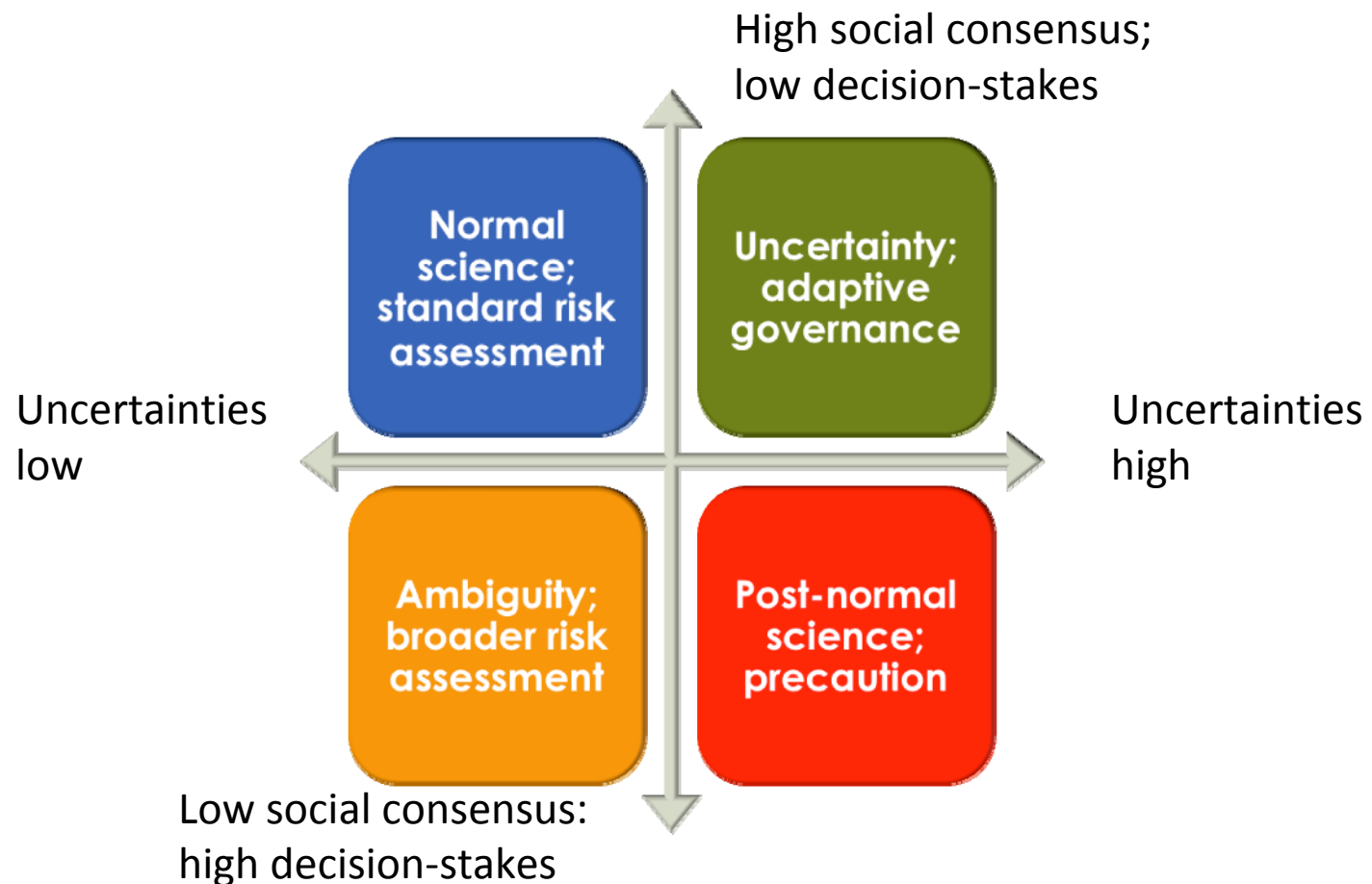
Sound science vs precaution in action

- Australia-New Zealand Apples case in the WTO



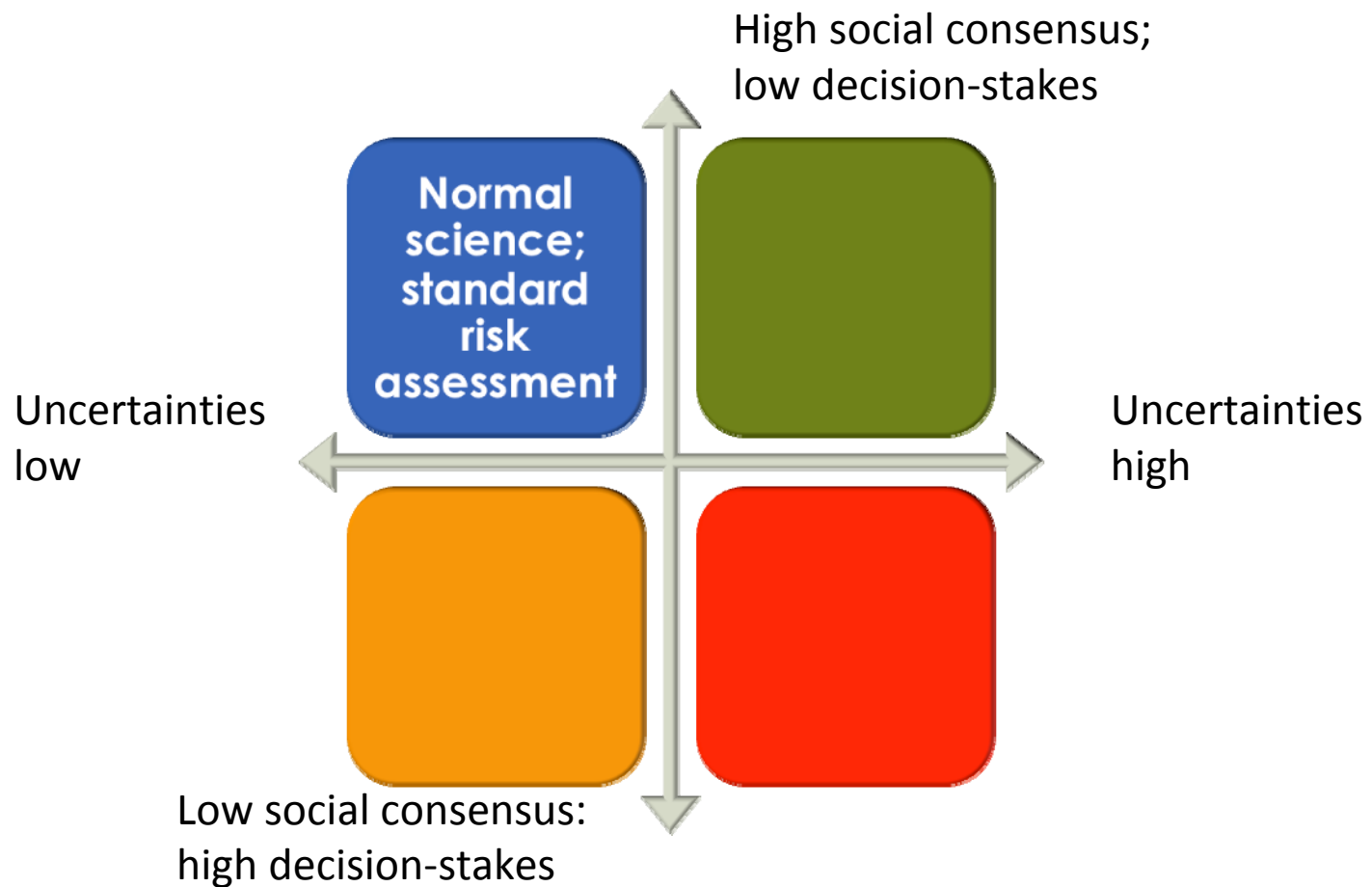


When to use different science-based approaches?



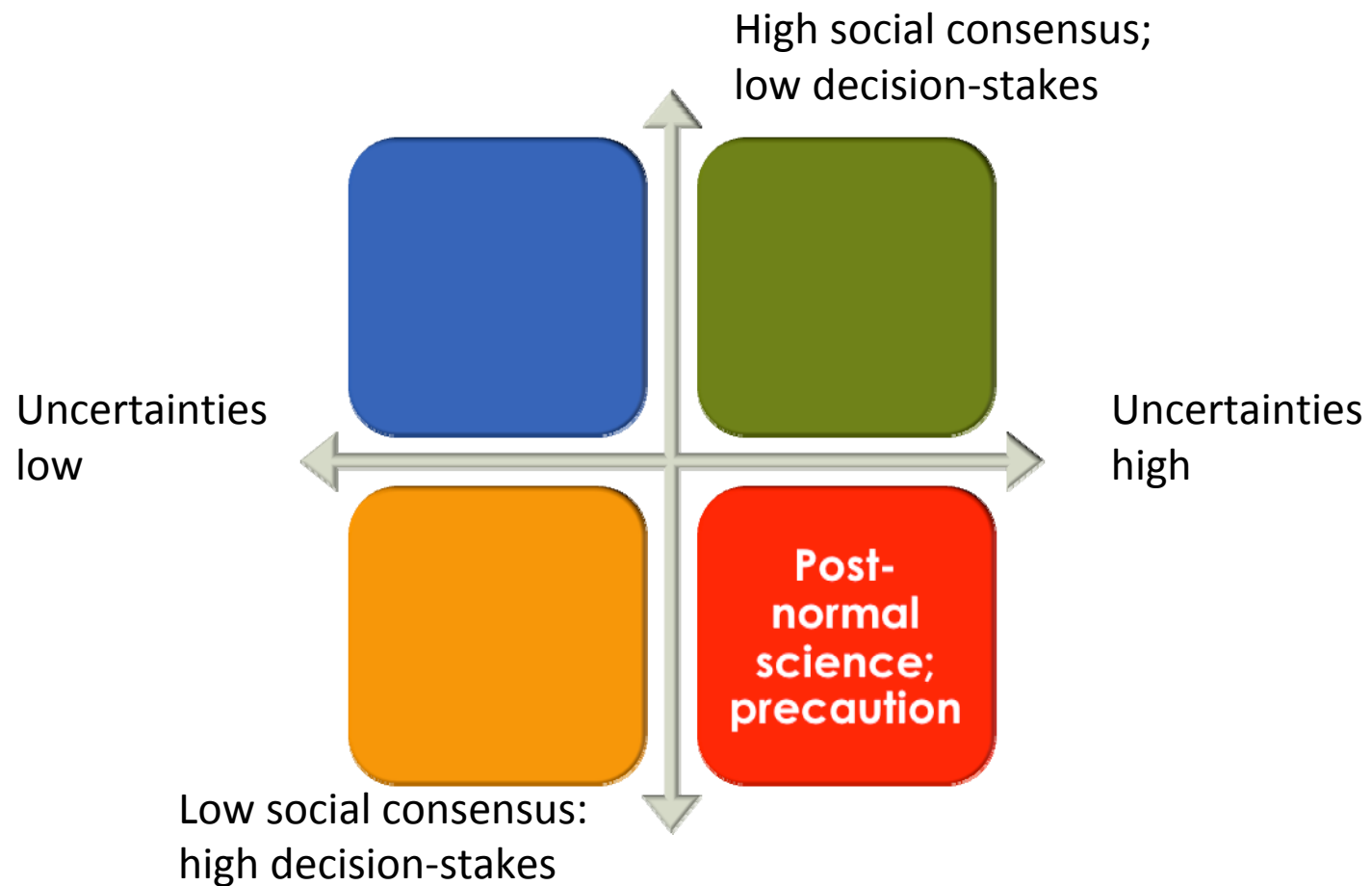


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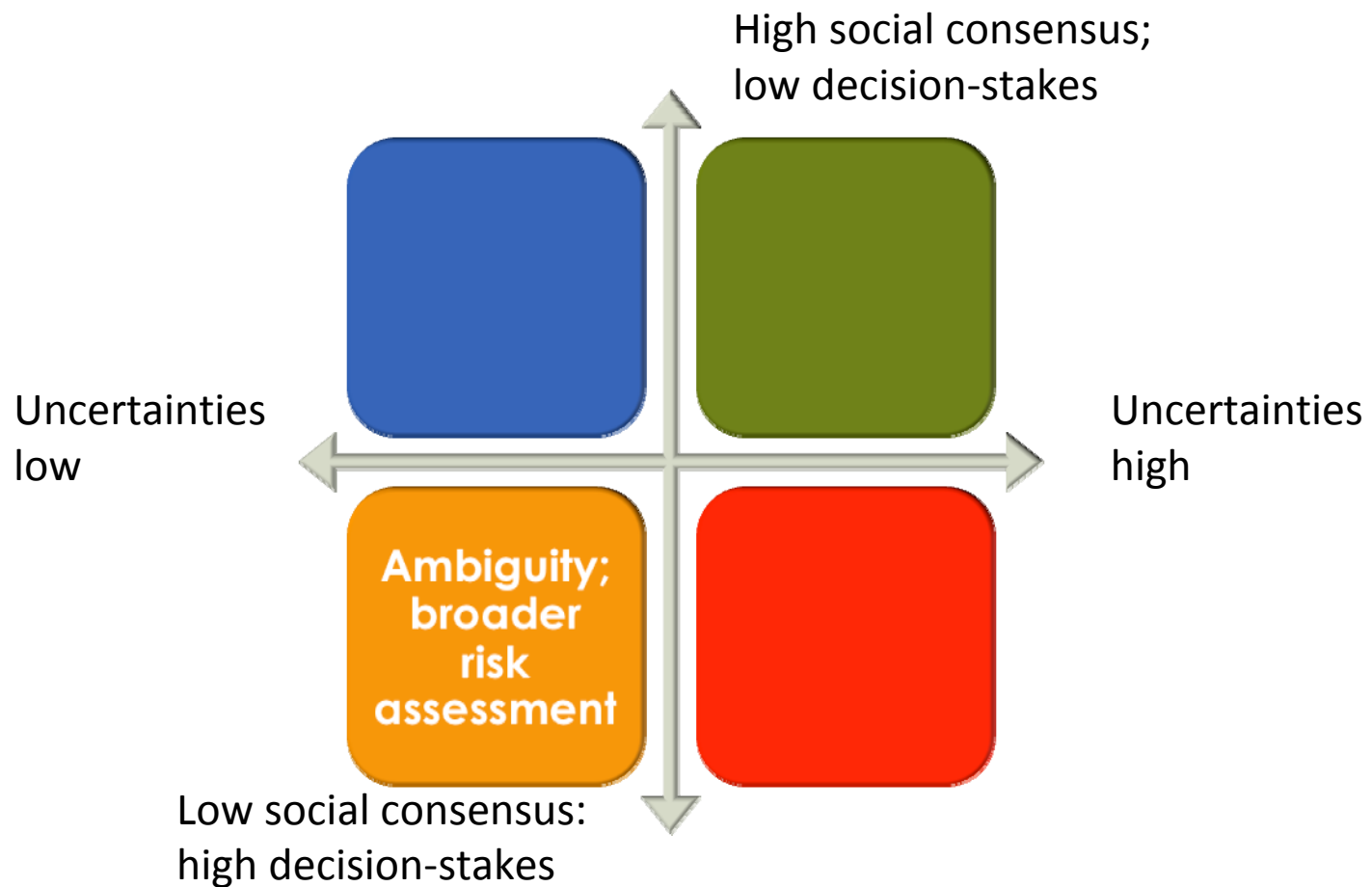


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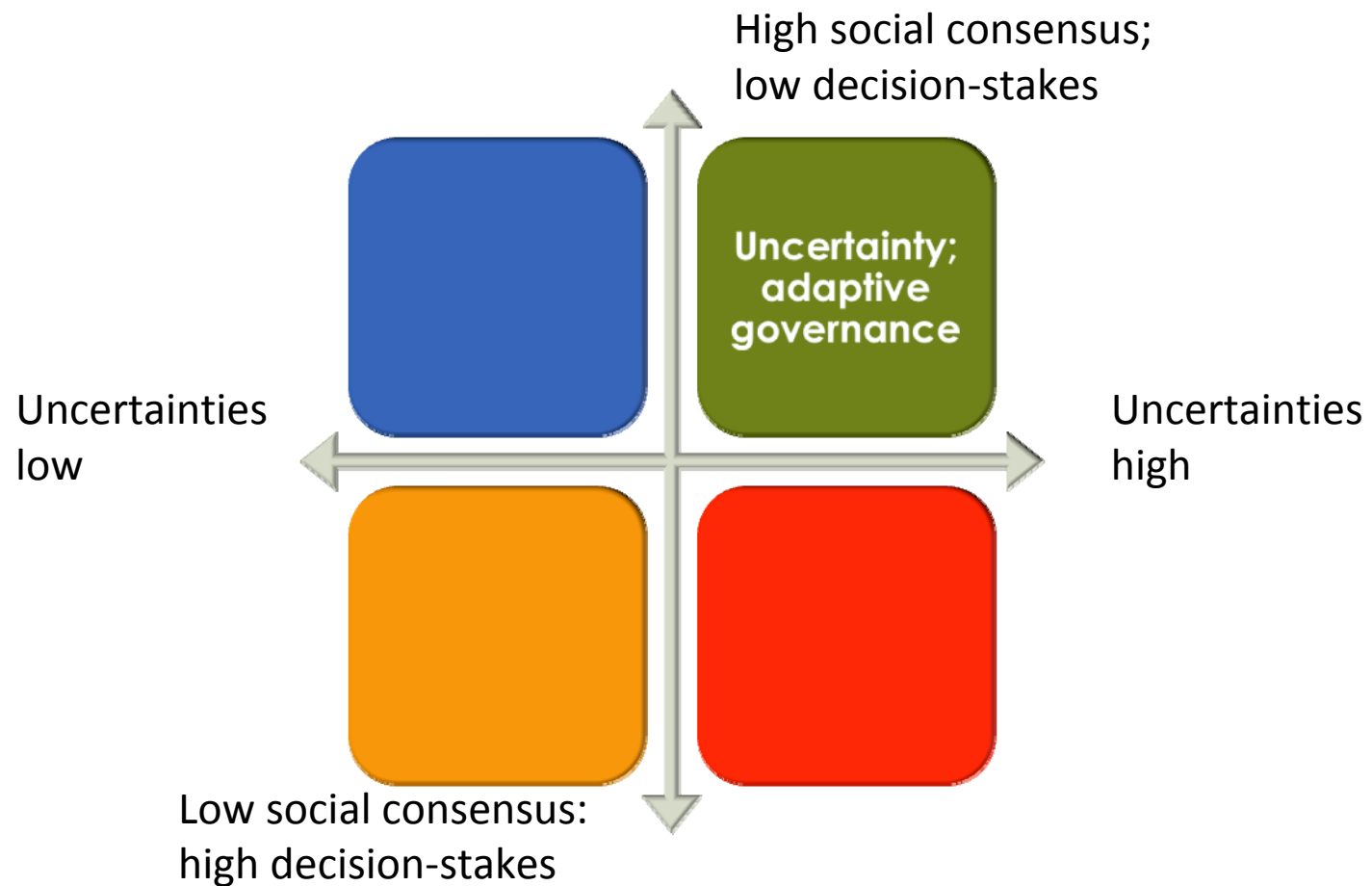


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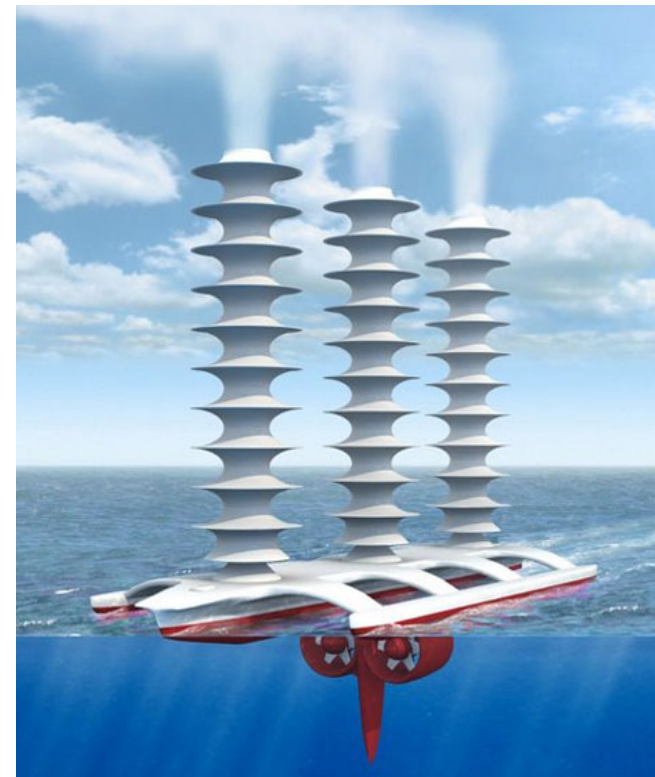




When to use different science-based approaches?



Post normal science and precaution



Ambiguity

- Food safety issues e.g. growth hormones in beef



Uncertainty





How to do science in the new mode?

- Characteristics of post-normal, “Mode 2” science/risk assessment:
 - Incorporation of anecdotal and community knowledge
 - Broader scoping of risk assessments
 - Multi-disciplinary, multi-stakeholder assessment committees
 - Taking account of public views



What does this mean in practice?

- International risk governance presents a challenging context for implementing “new” modes of doing science
- International structures are not well-designed to capture public and social views and knowledge about risk
- Some “second best” solutions:
 - NGO participation
 - Use of public opinion survey data
 - Broadening range of expertise on assessment panels and committees
 - Regional processes



How is this being done in other areas of international risk governance?

- SPS/WTO
- Food safety – enhanced NGO access, consensus building procedures, broader risk assessment processes
- Chemicals management – POPs Convention procedures for listing of new chemicals
- Climate change – IPCC: model that may ‘shed light on what may be fruitful ways to think about the role and status of scientific information used for policy purposes’



Difficult issues remain

- ▣ Incorporating/integrating public concerns with scientific findings
- ▣ Manageable governance processes
- ▣ Technical capacity



Final reflections: too much or too little?

- Maintaining authority of science while acknowledging uncertainty, role of values
- Too much: over-valuing of scientific knowledge and an under-appreciation of the social dimension of risk governance
- Too little: decision-making needs to be more grounded in science and less in politics