ACT Chief Health Officer Seminar
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- **In terms of policy and decision making in the face of risk, uncertainty and ignorance, are**
  -- disaster & emergency management;
  -- sustainability, and resource & environmental management;
  -- public and community health.
- **“Cognate policy sectors”?**
- *Raising the question, not answering it….*

Sources

- The material and proposals in this seminar are detailed in:
- Dovers, S. 2004. Sustainability and disaster management. *Australian Journal of Emergency Management*. 19(1): 21-25.
- Dovers, S. 2005. *Environment and sustainability: a policy handbook*. Sydney: Federation Press.

Sustainability, emergencies and health: common ground (1)

- **Broadest level:**
- **Managing interactions in complex, dynamic human and natural systems under conditions of uncertainty and possible non-linear change;**
- **Long term viability and well-being of communities; and**
- **Shifts from:**
  -- responding to natural disasters, to managing human-created risk
  -- reacting to disease, to preventative health
  ***-- managing environments, to managing human behaviour*.**
- **Unhealthy or vulnerable = unsustainable.**

… common ground (2)

- Substantive interactions:
  -- bushfire: biodiversity, safety, risk and health (trauma, effects of smoke, etc)
  -- flood control, biodiversity, risk, water quality
  -- climate change - storm surge, coastal management, disease vectors, heat stress, etc
  -- major pollution events.
- Shared issues, could be better and more proactively handled by pre-event planning
- But, digging deeper than issues ….

… common ground (3)

Attributes of sustainability problems:

1: broader and deeper spatial and temporal scales

2: possible ecological limits to human activities

3: irreversible and/or cumulative impacts

4: complexity and cross-problem connectivity

5: pervasive risk and uncertainty

7: poor information base, appalling monitoring

6: important assets not traded and thus not valued economically

8: new ethical dimensions (other species, future, distant communities)

9: systemic problem causes - embedded in lifestyles and behaviour

10: poorly developed theory, methods and techniques

11: poorly defined policy and property rights

12: novelty as a policy field.

Similar in emergencies and health? And, poor fit with trends in research, public policy and admin, politics?

Trends in EM (Salter 1998)

(echoed in environment -- and in health?)

- **Focus on hazards/threats**
- **Reactive**
- **Single agencies**
- **Science-driven**
- **Response management**
- **Planning *for* communities**
- **Communicating *to* communities**

- ***Single issues/hazards - disintegrated***

- **Focus on vulnerability**
- **Proactive**
- **Partnerships**
- **Multi-disciplinary**
- **Risk management**
- **Planning *with* communities**
- **Communicating *with* communities**

- ***All-hazards approach - integrated***

(Defns) Risk, uncertainty, ignorance

- Risk: *probability distributions can be assigned to possible changes (know the odds).*
- Uncertainty: *know the direction of change, but cannot assign probability distributions.*
- Ignorance: *direction of possible changes not known, known possibility of large scale non-linear change and surprise.*
- All three influenced by complexity and cross-problem connectivity

Sources of uncertainty
(in env/sustainability)

- Status of natural systems (species, key processes).
- Change in natural systems (climate, nutrient cycling, population fluctuations, etc).
- Change in human interventions in natural systems (current status, future trends).
- Implications of human interventions (how serious are the impacts?)
- Efficacy and/or unexpected results of policy interventions (regn, consumption change, market mechanisms, education, etc).

Approaches (similar?)

- Traditional:

  - reactive to emerging problems
  - research, very little monitoring of env or policy
  - quantitative risk *assessment*
  - regulatory and educative policy styles

- Emerging:

  - recognition of complexity, irreducible uncertainty
  - proactive (precautionary principle)
  - more research, not much more monitoring
  - qualitative/quantitative approaches
  - comprehensive risk *management* (AS 4360)
  - self-reg, participation, market mechanisms (NEPIs).

Key challenges (for all fields?)

- **Modelling & responding to uncertainty and complexity**
- **Blending qualitative and qualitative approaches**
- **Implementing the precautionary principle – risk management, decision support methods, etc.**
- **Participatory policy designs, reconciling different knowledge systems**
- **Institutions and governance – inclusiveness, maintaining attention over the long term, empowering at new organisational scales.**
- **Comparative analysis of policy interventions (requiring improved policy monitoring):**
  -- within fields; and
  -- across policy fields …….

Learning across cognate policy fields?

1. Public health, environment and sustainability, natural resource management, emergency management, community development?
2. Similar problems, similar policy experiments?
3. Hard to transfer policy lessons, but (2) gives a basis for framing links, questions and analysis.
4. Three possibilities:
   -- joint policy analysis projects;
   -- whole-of-govt structures and processes; and
   -- institutional links (research, policy agencies, professional communities).