

Beyond EM

Learning from coastal disasters

The innovation paradox



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Brentwood Hotel, 16 February 2011

EQC

2010-2011: Public safety & sustainability to fore



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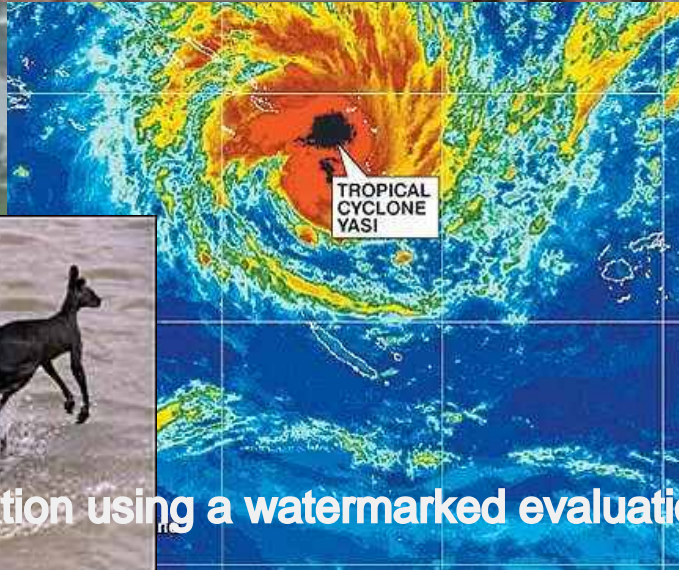
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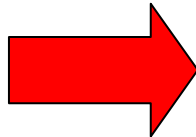
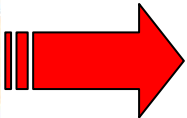


My talk on one slide

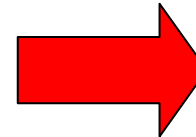
- ❑ Unsustainable practices = grave threat to our future
- ❑ 'Business as usual' unacceptable
- ❑ Need paradigm shift in thinking & practice, i.e., transformational governance innovation



Forever discovering



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Beyond EM: Learning from coastal disasters

1. Disaster narratives & *la condition humaine*
 - Sustainability, hazards, risk, vulnerability
 - Distant stories: Louisiana, Gulf of Mexico, USA
2. Transformational innovation: Governance for resilience & sustainability
3. Lessons for practice

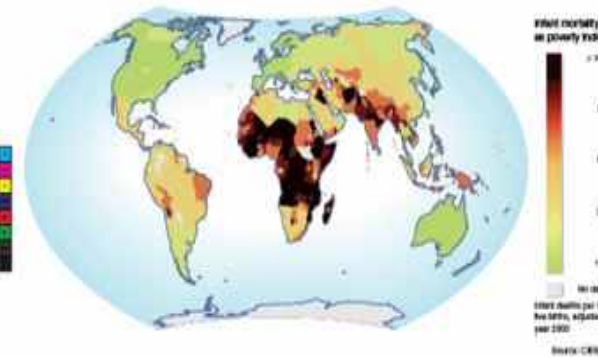
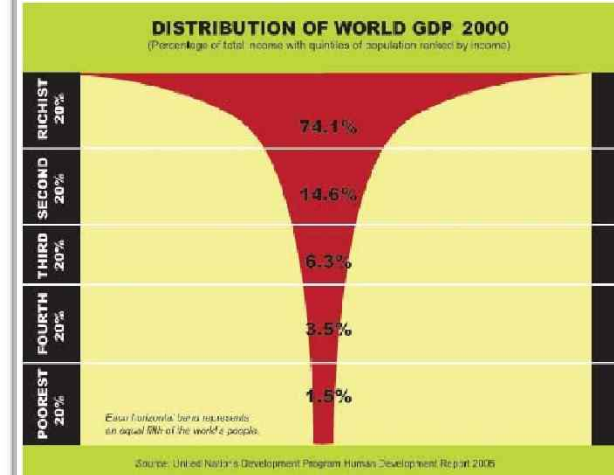
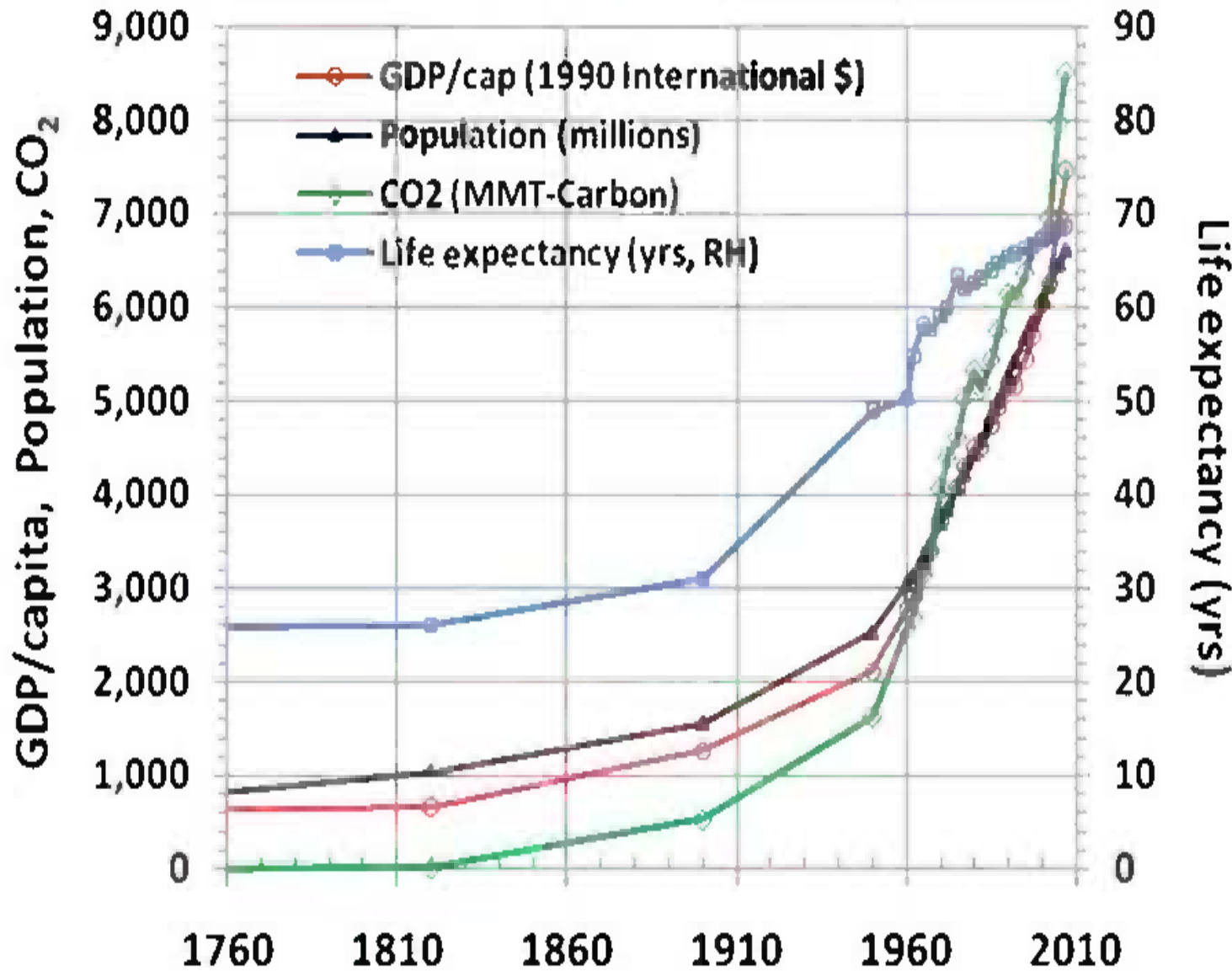


1. Disaster narratives & *la condition humaine*

- ❑ Contrast earthquakes in Canterbury (0 dead) with Chile (486 dead) & Haiti (222,000 dead)
- ❑ Floods in Pakistan (14m, 2000dead) vs Queensland
- ❑ Disasters speak volumes about our human condition; exposing good & bad
- ❑ Profound statement about who we are & can be
- ❑ **What can we learn from disaster narratives to build more resilient and sustainable communities?**
- ❑ **How might the Canterbury experience shape future choices about risk and resilience in NZ?**



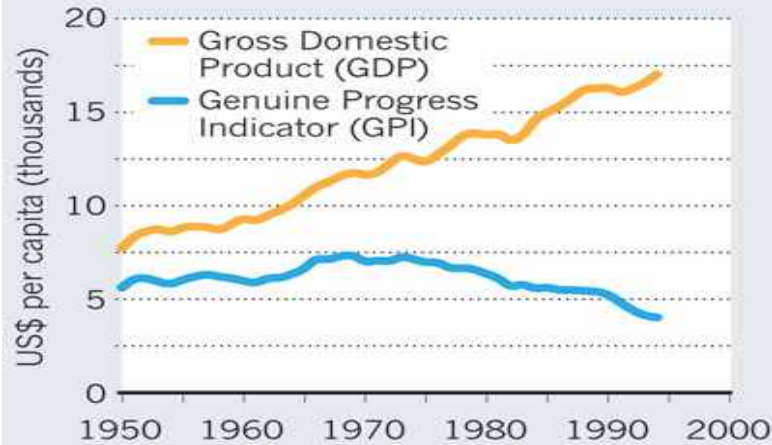
La condition humaine



Genuine progress, planetary health, & disaster risk

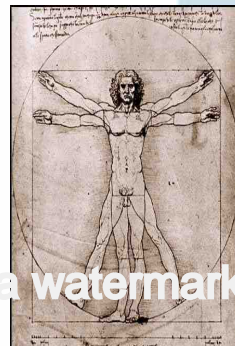
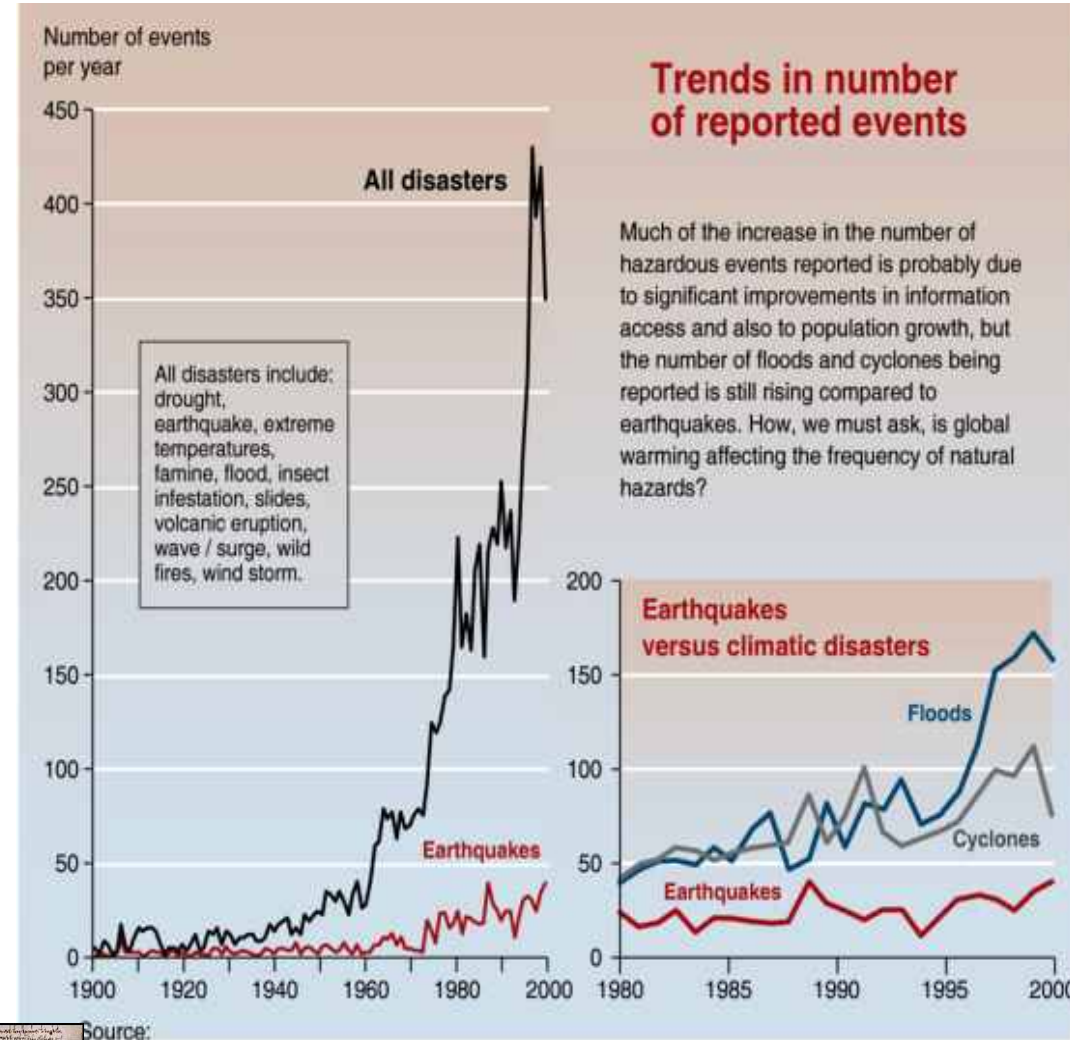
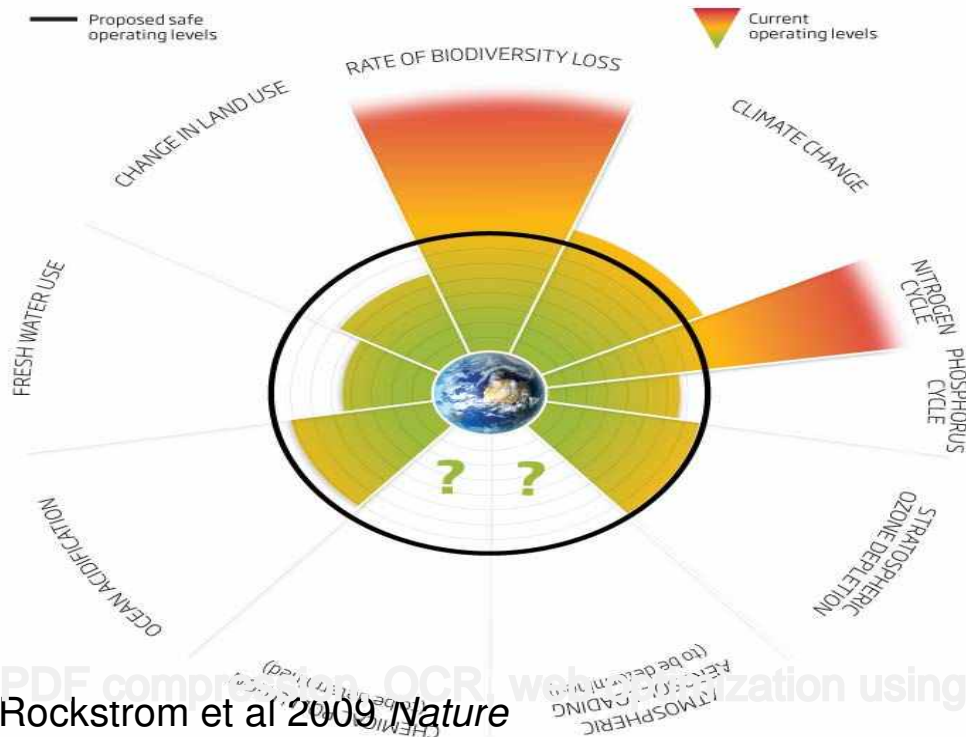
GENUINE PROGRESS?

US GDP rose over the past decades; the GPI, which accounts for social and environmental factors, went down.



Beyond the boundaries

We have already overstepped three of nine planetary boundaries and are at grave risk of transgressing several others.



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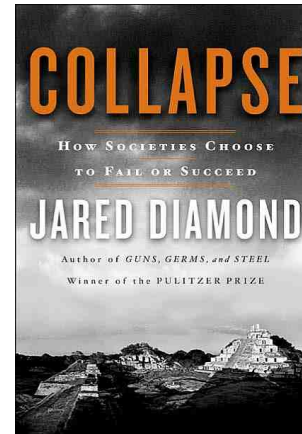
Understanding & dealing with hazards, risk & vulnerability

Social Vulnerability

Unsafe conditions

Dynamic pressures

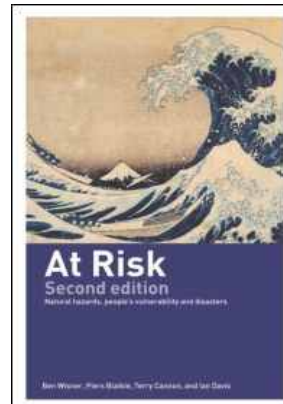
Root causes



Disaster Risk Reduction

Hazards

- Shocks
- Slow onset hazards



(After Wisner et al., 2004)

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Reversing the spiral of social vulnerability: Beyond warnings, response & recovery



Recovery

Reduction

Disaster?

Business as usual?

Hazard risk

**Emergency
Mgt**

Social Vulnerability

Response

Readiness

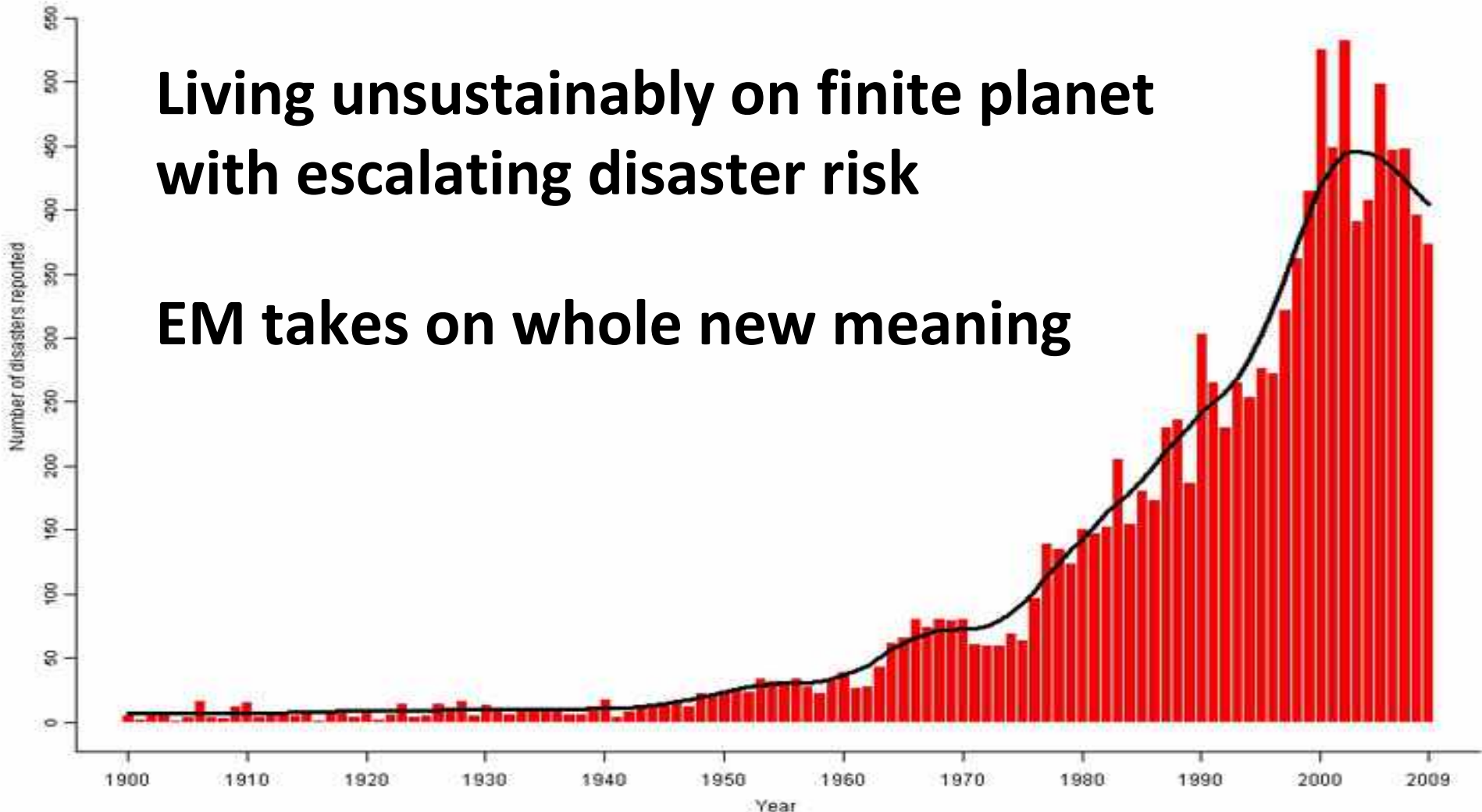
Hazard event



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Natural disasters 1900-2009

Natural disasters reported 1900 - 2009



**Living unsustainably on finite planet
with escalating disaster risk**

EM takes on whole new meaning

Louisiana, USA, = ground zero

- Hurricane Katrina
- BP-Deepwater Horizon Oil spill
- Global climate change hotspot



Katrina: Levee failure & the flooding of New Orleans



**“It took about 200 years to wrest the city from nature”
Colten 2006. *An Unnatural Metropolis: Wrestling New Orleans from Nature***



Rebuilding New Orleans

“The challenge is to keep and secure those things that are good: our food, our music, our architecture, our people, our faith and our families, our love of life and our love of country.

And at the same time, discard that part of our culture that strangles us: crime, bad schools and the inability to move beyond race”

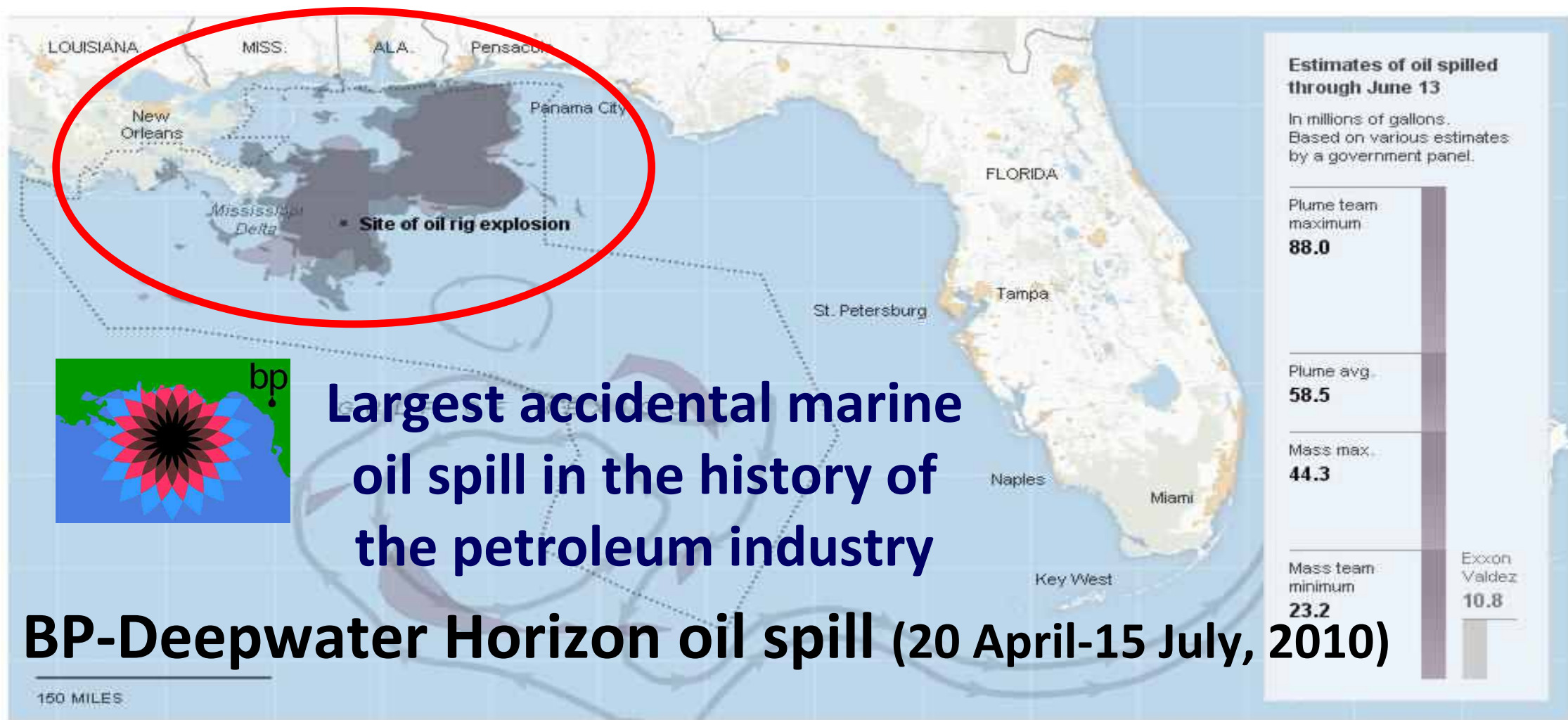
Mitch Landrieu, 23 July, 2008, Lt. Gov. Louisiana; 2010 Mayor New Orleans



Understanding Katrina: Many narratives

1. **The story of the storm:** Precipitating event, but least important story
2. **The story of effects, consequences & aftermath:** Post-event human actions & consequences – story of devastation
3. **The missing pre-K story:** Historic choices incl. patterns of physical development, public risk, community resilience & sustainability
 - Ignoring pre-K story in recovery will re-entrench pre-event vulnerabilities. Recovery will fail to reduce disaster risk (Freudenberg et al 2009).



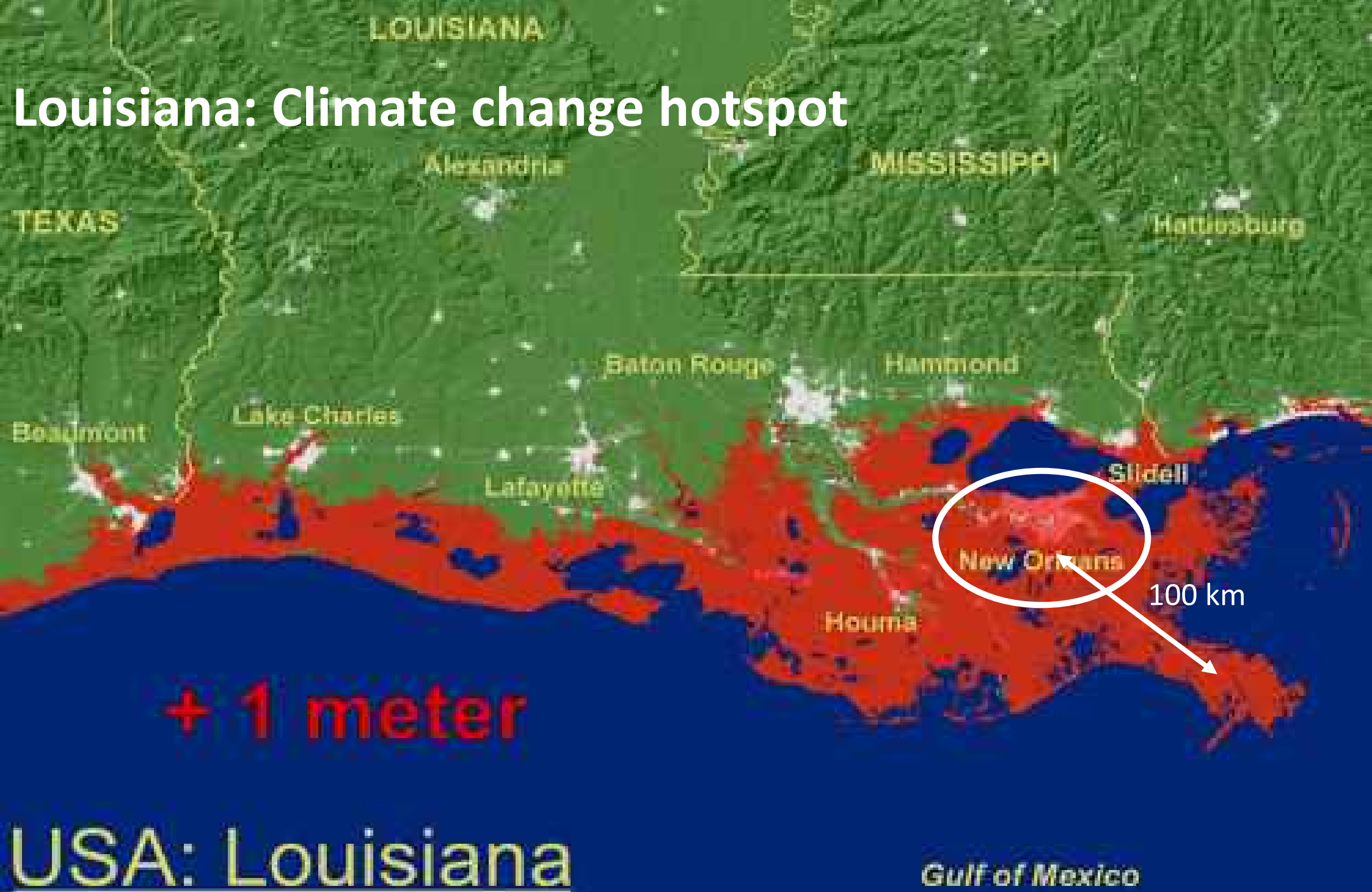


BP Oil Spill story

- ❑ Technological disaster with massive socio-economic & environmental ramifications?
- ❑ Stories about the failure to reconcile the creation, bearing & sharing of private & public risk
- ❑ NZ faces challenges in reconciling private & public risk



Louisiana: Climate change hotspot



USA: Louisiana

Gulf of Mexico

Climate change story

- ❑ More than a story about science & politics
- ❑ A parable about understanding local-global interconnections & reconciling short & long term interests & private & public risk, rights & responsibilities
- ❑ Lessons learned from efforts to adapt to impacts of slow onset disaster can inform vulnerable communities around world, including at-risk NZ communities



What do disaster narratives teach us?

- ❑ “A disaster becomes unavoidable in the context of a historically produced pattern of ‘vulnerability’” (Oliver-Smith & Hoffman, 2002, *Why Anthropologists Should Study Disasters*, in *Catastrophe & Culture*, p3)
- “... preventing deaths and destruction from disasters pays, if done right ...” (UN / World Bank, 2010, *Natural Hazards, UnNatural Disasters: The Economics of Effective Prevention*)
- ❑ In era of global change, need to reframe understanding of relationship between disaster, risk & *la condition humaine*



The innovation paradox

- ❑ Coastal cities & towns = strategic locations & locus of economic development.
- ❑ Coasts = crucible for innovation.
- ❑ **Paradox = business & technology innovations imperil the future of coastal communities** because past & prevailing practices have destroyed, transformed & degraded the ecosystems that sustain coastal livelihoods.
- ❑ **We need to innovate to escape ‘unsustainability trap’.**



The innovation imperative

“ We can't solve problems by using the same kind of thinking we used when we created them
Albert Einstein ”

- ❑ Incremental improvements / ‘business as usual’ failing.
- ❑ New kind of innovation is required to secure a sustainable future for the world’s coastal communities.
- ❑ Step-change in thinking & practice is needed to make transition to resilient, sustainable communities.
- ❑ **Imperative = Business & technological innovation needs to be reframed & underpinned by transformational governance innovation.**



2. Transformational innovation: Governance for resilience & sustainability

- ❑ What is transformational innovation?
- ❑ Who leads innovation? 'Big Government' vs 'free market'
- ❑ Beyond 'business as usual'
- ❑ Transformational innovation for resilience & sustainability



What is transformative innovation?

- ❑ Innovation = practical application of novel ideas that results in significant change
- ❑ TI = deep society-wide change in human behaviour, institutions, technology & infrastructure
 - E.g., horse to cars; public education; gender equity; internet
- ❑ Transition to sustainability requires
 - Focused political attention
 - Transparent, inclusive & empowering public deliberation to create shared vision
 - 'Joined up' policy-making & networked / responsive governance actions
- ❑ **Who should drive transformational innovation towards sustainability?**



'Big Government' vs 'free market'



'Big Government' vs 'free market': A false dichotomy

Elinor Ostrom, 2009 Nobel Prize in Economics

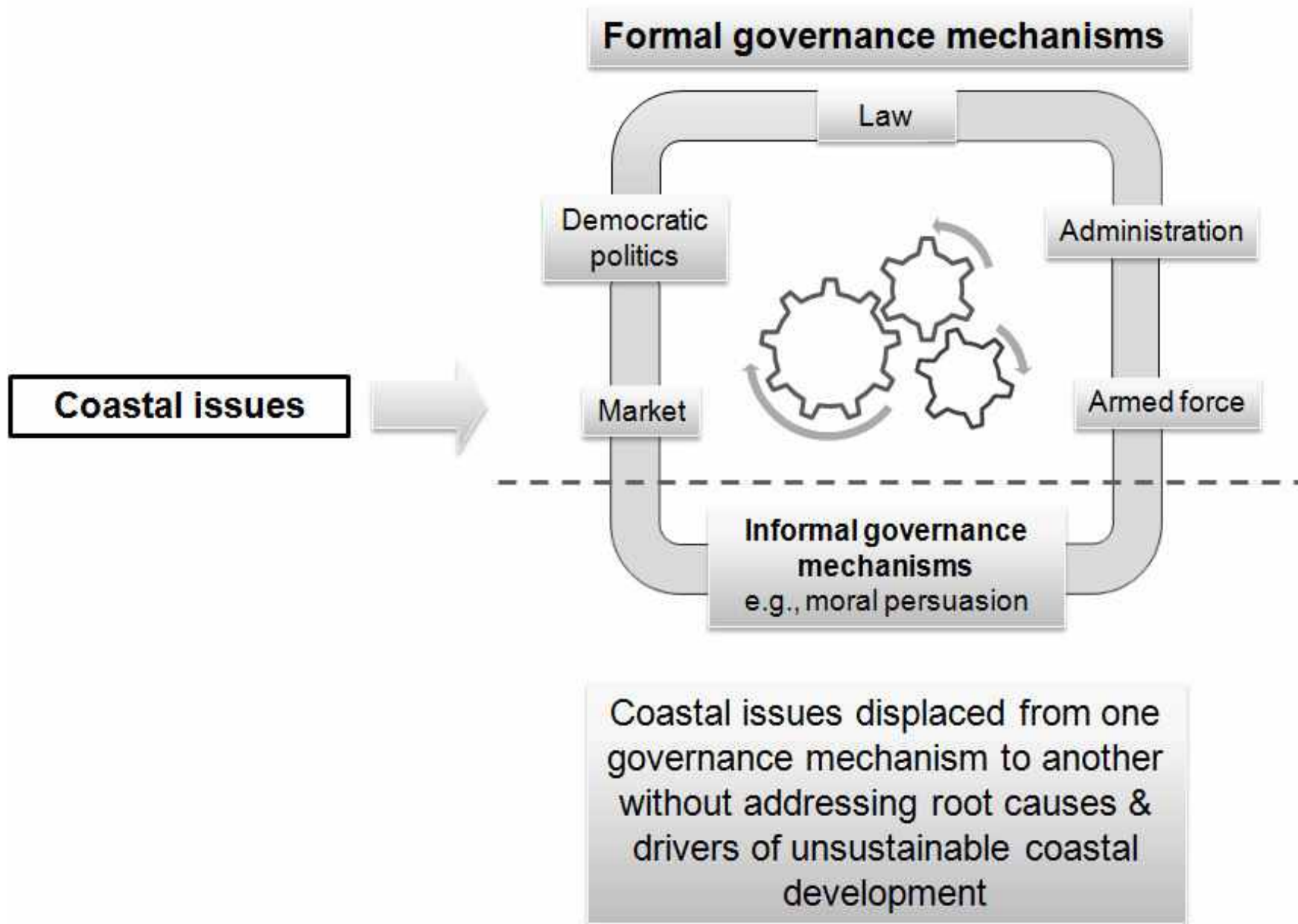
Building trust in one another and developing institutional rules that are well matched to the ecological systems being used are of central importance for solving social dilemmas. ...

The most important lesson for public policy analysis ... is that humans have a more complex motivational structure and more capability to solve social dilemmas than posited in earlier rational-choice theory. ...

We need to ask how diverse ... institutions help or hinder the innovativeness, learning, adapting, trustworthiness, levels of cooperation of participants, and the achievement of more effective, equitable, and sustainable outcomes at multiple scales ...

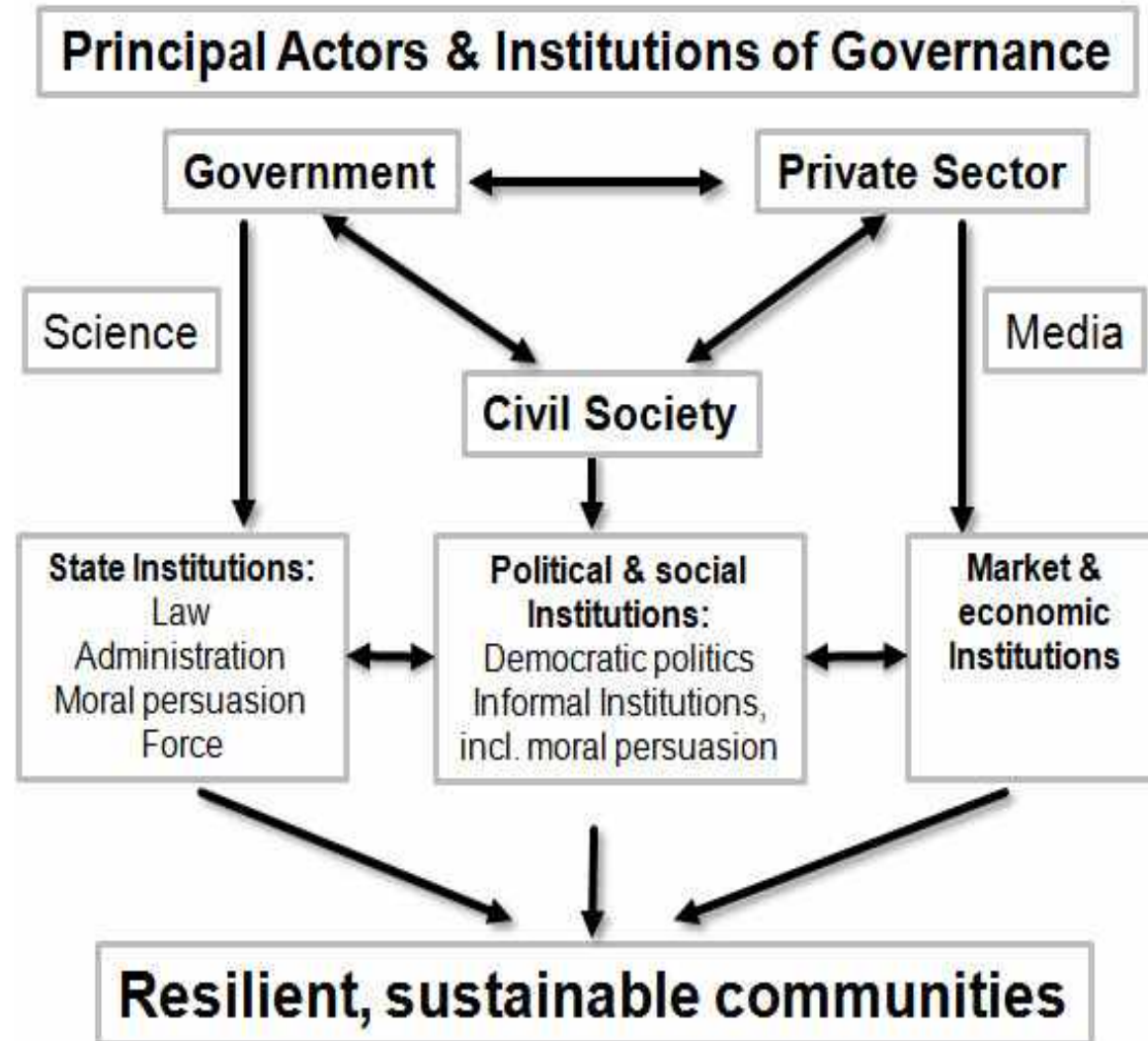


Beyond 'business as usual'



Governance for resilience & sustainability

- **Government** is the formal organisation of the public sector i.e., the State
- **Governance** is the process whereby societies or organizations make important decisions, determine whom they involve and how they render account (CIO, 2002)



Transformational governance innovation

- Transformational innovation realised by:
 - Engaging different voices
 - Informing expectations
 - Making connections
 - Creating & protecting public 'spaces' for authentic communication & deliberation
 - Reconciling divergent interests
 - Coordinating 'governance' experiments
 - Leveraging investments
 - Facilitating learning
 - Fostering diffusion & mainstreaming innovations

(Scrase et al., 2009)



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Transformational governance innovation

- Government has key role to play
 - Catalysing & facilitating alignment of interests, incentives & institutions through creation of 'safe spaces' for deliberation, experimentation, lesson-learning & adaptation, & ultimately transformational innovation.
- Governance challenges & opportunities
 - Unsustainable regimes need to be 'squeezed out' by policy incentives & disincentives (viz. tax on cigarettes to reduce socially undesirable behaviours)
 - Facilitate radical innovations in niche settings (e.g., subsidies for experimentation; network facilitation)



3. Lessons for practice

□ What can we learn from disaster narratives to build more resilient and sustainable communities?

- “No single approach to bringing sustainable hazard mitigation into existence shows more promise at this time than increased use of sound and equitable land-use management” (Mileti, 1999. *Disasters by Design*, p155-156).

□ What modalities of governance are needed to:

- Engage local people in joint learning & public decision-making?
- Capitalise on local culture & knowledge?
- Mobilise local capacity to rebuild?
- Enable local communities to make choices that build safer, more sustainable communities?
- Secure the things that are good for the community; & discard those things that strangle?



Lessons for practice

- ❑ **Speed vs deliberation* dilemma:** Reconcile the need to marshal authority of the state & entrepreneurship of market to rebuild quickly *with* necessity for inclusive, deliberative, innovative & transformative planning.
 - ❑ Rebuilding too quickly & randomly → massive long term social costs & risks (e.g., 1871 Great Fire in Chicago, 1906 San Francisco earthquake & 2005 Hurricane Katrina).
- * ***Deliberation*** = reflection + dialogue + negotiated decision-making (i.e., not just discussion!)



Lessons for practice

- **How might the Canterbury experience shape future choices about risk and resilience in New Zealand?**
 - What does recovery mean? To whom?
 - What & for whom are we rebuilding?
 - What civic principles & moral values should be agreed upon to frame our choices?
 - Who should decide?
 - How can those affected by the quake be involved in public planning & decision-making?
 - How will our future practices & institutions be reshaped to reduce disaster risk?



“Community must have say in redesign”



Very Reverend Peter Beck (15 Oct, A17)

THE PRESS

“What will change because of the earthquake? ... In the early days after the quake we saw unparalleled community spirit as we reached out to one another ... leadership ... & emergency services were brilliant ... volunteers [were] inspiring. ...

For now we move into the recovery phase. Inevitably things aren't going to go as smoothly as some would like. ... There is much to be done. ... And we have the chance to rebuild the city, & to do it right. We get the chance to review what has worked & what has not in our planning of the past & to renew our heritage for future generations. We get to build liveable spaces, & redesign the city on a human scale, with human values at the centre.”



“Community must have say in redesign”



THE PRESS

“The role of urban planning ... is to uphold & strengthen the character of particular places. So it is vital that communities here have a voice in the design, & it is not left to the powers that be in Wellington, who may not balance the vital economic needs with an holistic understanding of the aspirations & well-being of this particular set of communities. ...

The city council & the central government in Wellington have big decisions to make on our behalf. They need to have big ears to listen & to test out ideas with the citizens. A consultative, inclusive process is the way forward. ...

In 100 years from now we want people to look back at what we have done to preserve & enhance our unique heritage & say ‘well done!’”



Legacy?

- ❑ **Recovery = is NOT just a ‘rebuilding project’; it is opportunity for community reconciliation, restoration & renewal**
- ❑ **It is a practical AND political & moral challenge**
- ❑ **Reconcile speed vs deliberation dilemma through leadership + collaborative plan-making**
- ❑ **Empower local people – IT IS THEIR RECOVERY**

