Crisis and Risk: Categories and Mental Maps
The following pages stem from our ongoing effort to:

1. Make sense of the various potential crises that are competing for the attention of decision makers.

2. Better understand the crisis-event mechanisms that will bring about step changes in our collective willingness to act.

Thank you for taking the time to review these conceptual models, and for contributing to the dialogue.

Regarding the energy and climate crisis classifications, our next steps will be to look more in depth at the ways each type of crisis would impact specific economic/social/governmental sectors. To those ends, feedback from the global network of researchers is always welcome.

The following powerpoints were published on Energy Bulletin and constitute the background for our ongoing investigations.

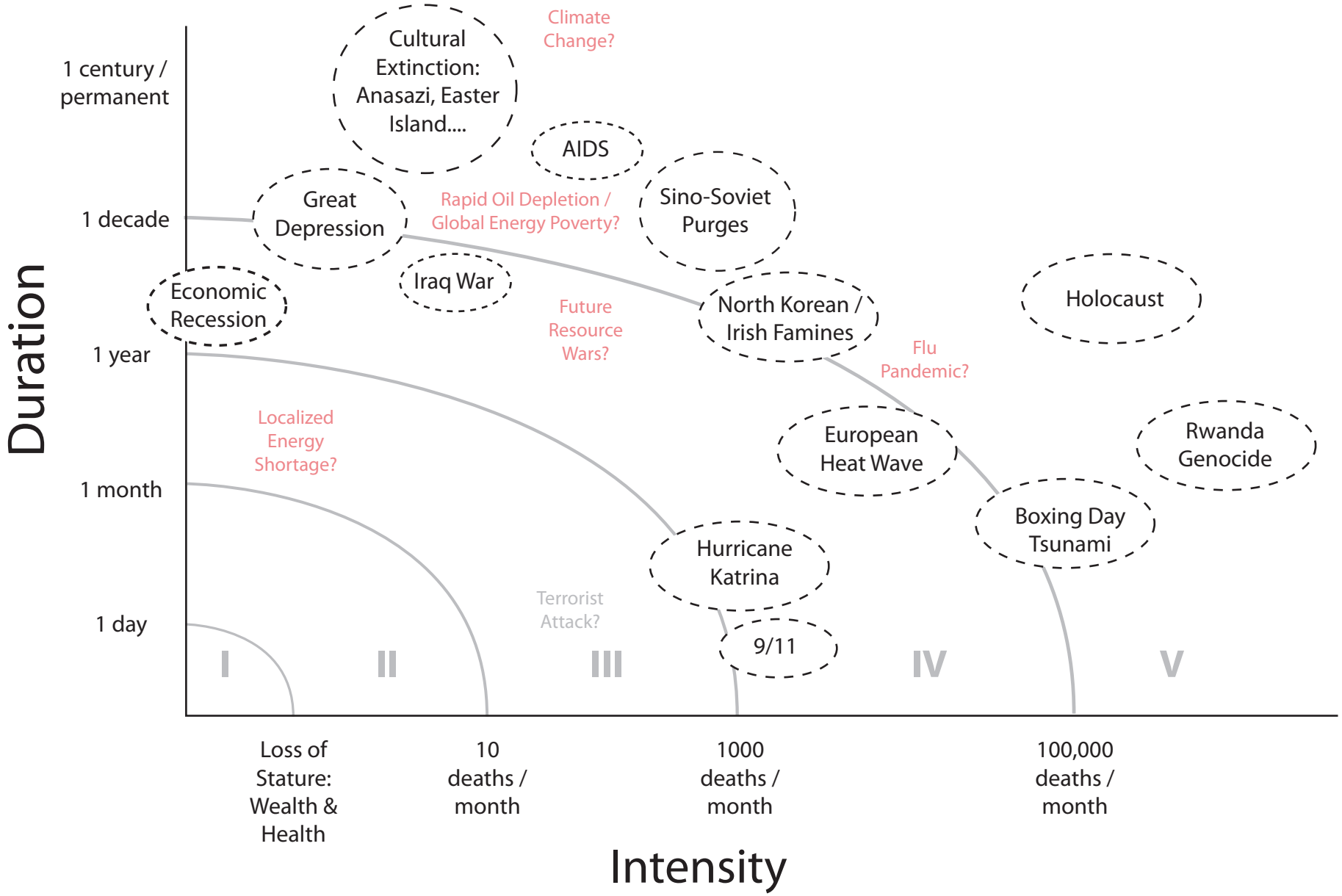
Peak Oil: Navigating the Debate
- Online Version (Slideshow)

Our Future(s): 4 Global Scenarios
- Spanish Version

Scenario Coaster: Coming to Terms With the Mainstream Predictions

Thanks,

Bryn Davidson
Rao/D Cityworks Design and Planning
The Dynamic Cities Project



Global Humanitarian Crises:

Past and Future -

The Global/Historical Context for Evaluating the Risks of Peak Oil and Climate Change

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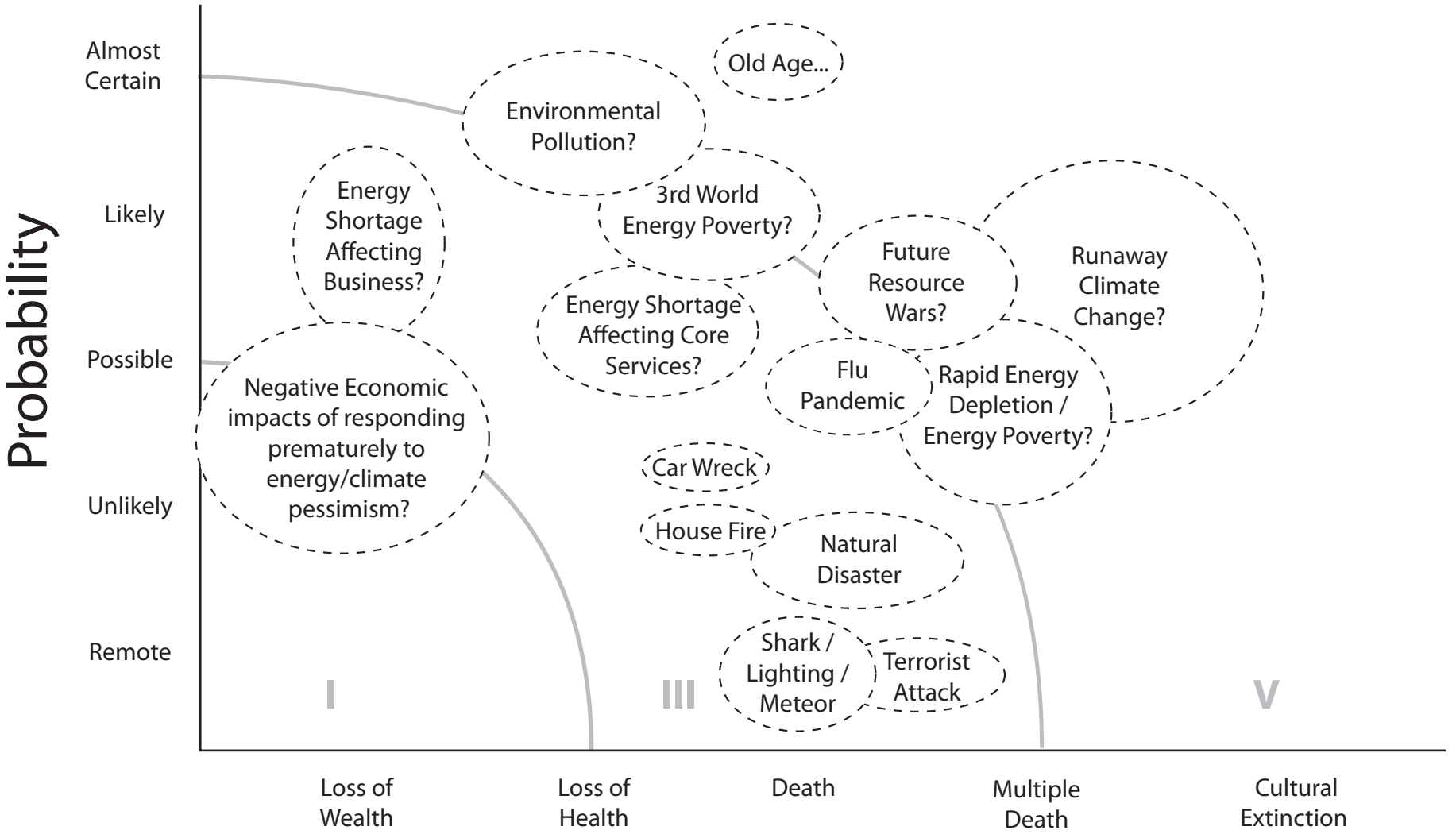
urban ideas for a rowdy future

DYNAMIC CITIES PROJECT
www.dynamiccities.org

Conceptual mapping only - Does not precisely reflect actual numbers/impacts. Draft v. 1 Nov. 2006.



Risk:

Seriousness & Probability

An Analytical (vs. Emotional) Context for Evaluating the Risks of Peak Oil and Climate Change

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Energy: Crisis Classification

Impacts and Responses

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Draft v.1.2 Nov 17, 2006

	Class 1:	Class 2:	Class 3:	Class 4:	Class 5:
Energy Crisis >>	**Price Shock**	**Intermittent Shortage**	**Extended Shortage**	**Serious Shortage**	**Systemic Crisis**
Energy: Defining Impact	Rapid price increase leading to altered spending patterns	Causes political fallout at the local & regional level	Causes political fallout at the national level	Causes widespread political, economic, and social fallout through a whole year.	Causes economic or governmental collapse lasting a decade or more.
Key Indicators	50%-1000% annual price increase.	Intermittent Brownouts, Blackouts, capacity reductions, or fuel shortages.	Multi-day blackouts. Extended fuel shortages. Temporary rationing.	Energy shortages resulting in threats to core services (health & safety). Semi-permanent rationing.	Ongoing shortage resulting in market/currency collapse, negative growth, regional violence, or international geopolitical turmoil.
Example	Gasoline prices post Hurricane Katrina	Phoenix Pipeline Explosion, Alaska Pipeline Corrosion	The East Coast blackout of 2003	World War II rationing, 2000 California Energy Crisis	Great Depression, Cuba during the 'special period' after the collapse of the soviet union
Economic Euphemism	'Headwind'	'Hiccup'	'Major Challenge'	Recession / Stagflation	Depression / Stagflation / Hyper-inflation
End-Use Impacts by Energy Type					
Transport Fuels	Drives Increases in usage efficiency and purchasing shifts.	Fuel shortages resulting in lineups. Behavioral shifts.	Fuel shortages resulting in lineups, protests, economic hardship & mild hoarding.	Fuel rationing, widespread hoarding. Threats to police, fire and medical transport.	Transport for core services fails. Massive supply chain and economic failure.
Electricity	Drives Increases in usage efficiency and purchasing shifts.	Operational / behavioral shifts. Investment in backups.	Isolated evacuations of vulnerable populations for lack of cooling.	Public safety and healthcare concerns. Heat stroke risk.	Widespread health crises due to lack of sanitation, refrigeration, health care provision.
Heating Fuels	Load shifting to lower cost fuels.	Load shifting to electric heat. Behavioral shifts.	Heating Fuel shortages requiring evacuations of vulnerable populations (poor / elderly).	Heating Fuel shortages resulting in widespread evacuation/consolidation.	Chopping/burning urban forests, garbage & buildings remnants.
Petro-Feedstocks	Lower profit margins. Manufacturing migration.	Exploration of substitutes. Loss of market share.	Ramped up use of substitutes. Isolated supply chain failures.	Widespread substitution. Widespread supply chain failures.	Supply chain collapse.

Climate Crisis Classification

Impacts and Responses

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Draft v.1.2 nov 17, 2006

	Class 1:	Class 2:	Class 3:	Class 4:	Class 5:
Climate Crisis >>	**Tangible Impact**	**Transient Extreme**	**Sustained Extreme**	**Baseline Shift**	**Systemic Collapse**
Climate: Defining Impact	Perceivable shifts.	Extreme event.	Sustained extreme leading to localized collapse.	Permanent shift in baseline system behaviour.	Permanent collapse of ecosystem and dependent socio-economic systems.
Key Indicators	Changes visible to those with place-based historic experience.	New extremes for pre-existing cycles: Heat, Storm, Cold, Disease.	Drives phyical and economic migration.	Permanent relocation of populations, diseases & habitats. Permanent shifts in lifestyle & economic base.	Cultural Extinction. Termination of all pre-collapse systems. Emergence of new systems.
Example	Animal migration patterns. Freeze/thaw. Earlier/later blooming.	Hurricane Katrina, European Heat Wave.	Dust Bowl	Desertification, Sea Level Rise. Relocation of permafrost towns.	Ice Age Thaw