

Resilience 2011

SCHOOL OF SUSTAINABILITY

AT ARIZONA STATE UNIVERSITY

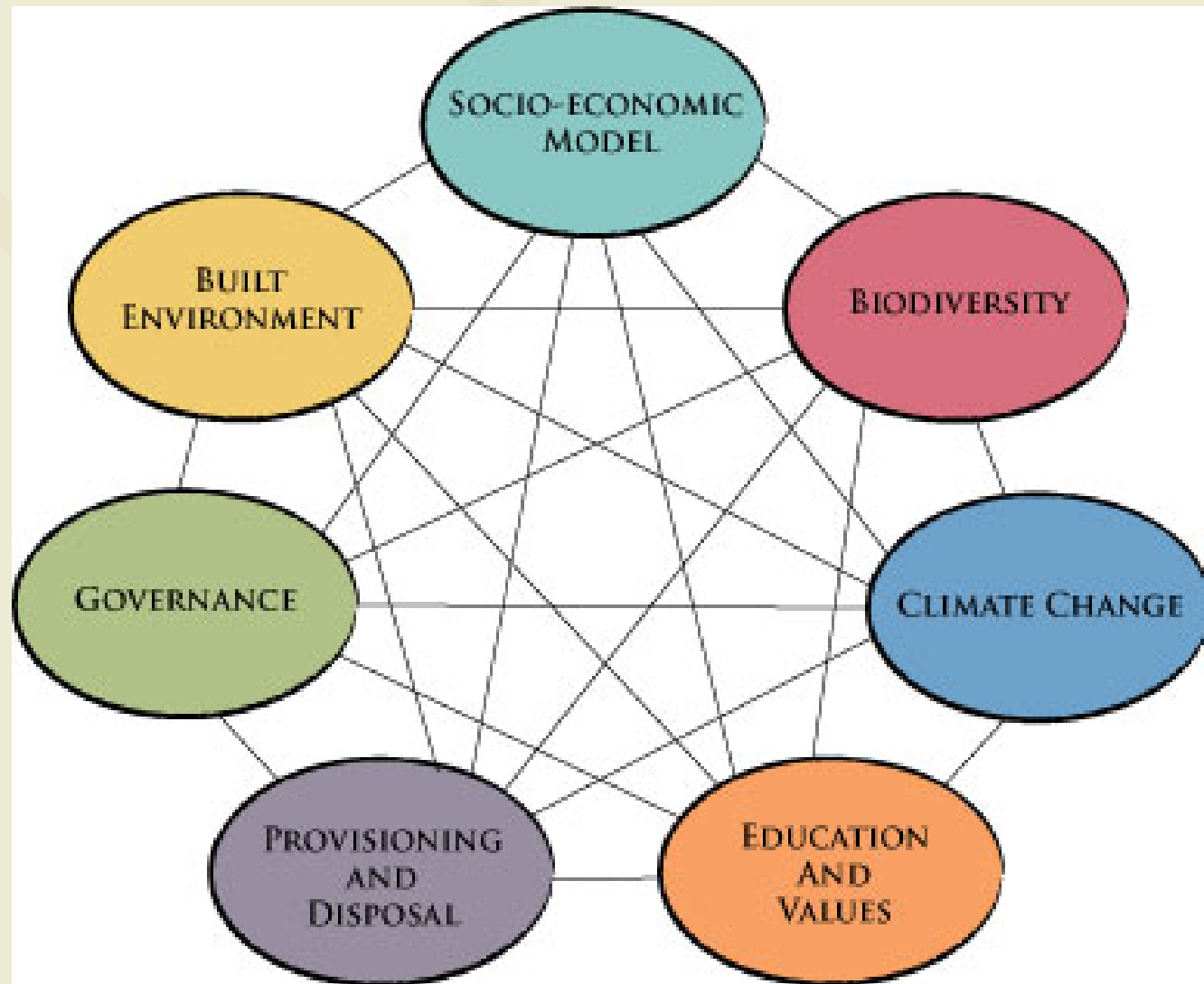
Urban Sustainability and Resilience



Chuck Redman

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Seven Transformations to Urban Resilience and Sustainability



Transform socio-economic model and social relations

- Diminish wealth/wage disparity
- Diminish social and environmental injustice
- Diminish disparity in access to/and quality of services, information, amenities
- Diminish segregation of groups (or modify scale of integration)
- Economy oriented toward quality of life and richness of experience and not toward growth

Transform governance

- Make more responsive/flexible/adaptive
- Develop anticipatory approach
- Develop decision support tools that more effectively rely on science and community input
- Align scales of ecosystem services processes and administrative units
- Align scales of social activities and administrative units
- Build social capital

Transform the built environment

- To maintain and deliver ecosystem services
- To enhance personal interaction and sense of place
- To conserve energy and materials
- To rationalize the urban-rural connections and flows
- Maintain open space for biodiversity, air quality, amenities

Transform provisioning and disposal systems

- Food security and the role of urban agriculture
- Water provisioning and trade offs
- Energy/transport/air quality/land use planning
- Supply chain, footprint, lifecycle

Transform education, perception, values

- Change attitudes
- Measures of success/quality of life
- Communicate trade offs
- Clarify resilience and/or sustainability
- Continuous learning and breaking down silos
- Enhance innovative capacity
- Create open knowledge networks

Protect and enhance biodiversity

- Monitor in the city itself
- Expand, protect open space
- Processes that enhance biodiversity
- Diminish the footprint of the city

Adapt to climate change and mitigate to the extent possible

- Immediate challenges
 - Sea level
 - Urban Heat Island
 - Spread of disease
 - Climate change induced migration
- Long term challenges
 - Changing opportunity and cost structures
 - Vulnerable landscapes (mudslides, storms)

Should we separate Resilience and Sustainability for their own good?

- Each of us want our “science” to encompass all approaches?
- I propose
 - Resilience is about the now and the near now
 - Sustainability is about future conditions
- Resilience emphasizes qualities of the system, it may influence, but does not predict the outcome of the adaptive cycle
- Sustainability seeks to transition system to “improved” conditions; normative, futures

Sense of the Community

If you want to add your ideas on two or three primary challenges to urban resilience and sustainability, email me at:

charles.redman@asu.edu

Thanks.