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"Urban Systems Challenges" Parallel Session



"Raising" Urban Resilience

Community Forestry and Greening in
Cities Post-Conflict or Post-Disaster

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Can Urban Community Forestry...

- Integrate multiple “capitals” in cities
- Unleash diversity, self-organization, and adaptive learning and management leading to positive feedback loops
- ***Reduce*** risk and enhance resilience ***before*** a disaster
- ***Demonstrate*** resilience ***after*** disaster strikes



?



Hurricane Katrina, New Orleans

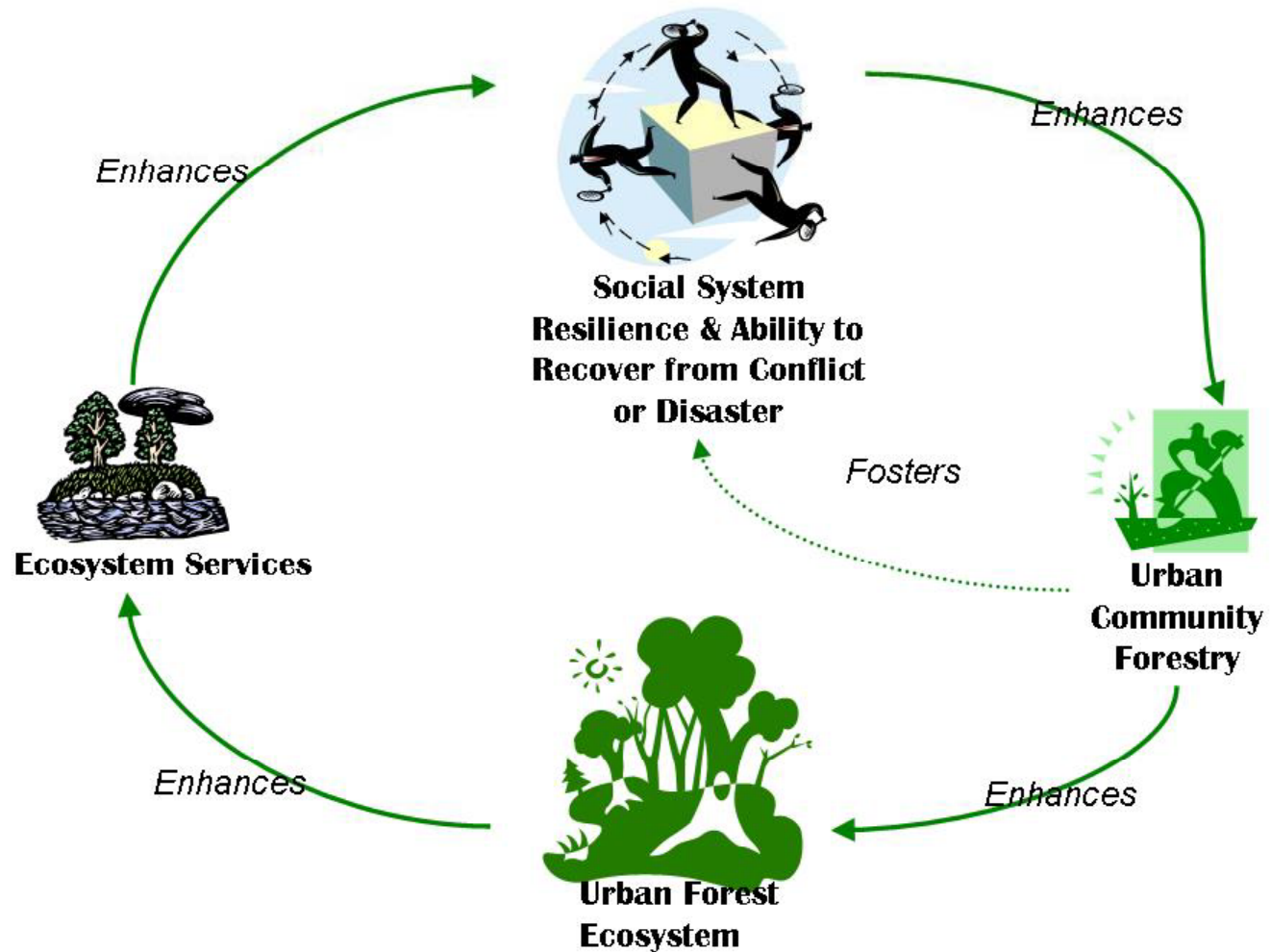


Big picture questions

- “How do humans interacting with their biophysical environment generate emergent collective behaviors(of humans, other species, and the systems themselves) in urban landscapes?” Alberti 2007
- “What are the mechanisms that link the urban landscape to human and ecological processes, and what influence do such mechanisms have on ecosystem dynamics?” Pickett et al 1997, Wu & David 2002, Alberti & Marzluff 2004
- What does an urban management system look like that:
 - "flows with nature"
 - enables the development and use of local ecological knowledge to understand local ecosystems
 - promotes self-organization and institutional learning, and
 - develops values consistent with resilient and sustainable social-ecological systems? Berkes & Folke 1998
- *Do the answers to these questions change dramatically in post-conflict and/or post-disaster contexts, and if so, why?*

Resilience & Dependency?





Trees may shape resilience before and following disaster in cities in ways not currently accounted for.

Active engagement of ordinary people with the environment plays a crucial, yet often unrecognized, role in resilience to disasters in cities.





So what...

Evidence thus far is:

- personal observations and testimony about trees and people's relationships with trees a factor in recovery following hurricanes
- the large literature on human and community benefits from nature
- the literature on socio-ecological system resilience

These three lines of evidence are circumstantial in that none directly focuses on the role of community tree planting and other civic ecology practices in resilience following disaster.





How to study this? Urban trees and urban community forestry in post-Katrina resilience in New Orleans...

- 1. characterize competencies, capabilities, and actions exhibited by community organizations and government agencies**
- 2. resident's descriptions the role of trees and urban forests**
- 3. volunteer's or resident's descriptions the value of active engagement in urban forestry activities**





In Conclusion, from...

“Erosion of the sources of resilience leads to fragile social-ecological systems, with consequences for human livelihoods, vulnerability, security and conflicts.”

Folke et al., 2002

Folke et al, 2002. Resilience and Sustainable Development: Building Adaptive Capacity in a World of Transformations. Scientific Background Paper on Resilience for the process of The World Summit on Sustainable Development on behalf of The Environmental Advisory Council to the Swedish Government.



To...

~~“Erosion~~ *Cultivation* of the sources of resilience leads to ~~fragile~~ *vital* social-ecological systems, with ~~consequences~~ *implications* for human livelihoods, vulnerability, security and conflicts.”



Acknowledgements

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- Community Gardening Returned Vets in Bosnia & Herzegovina
- Community Forestry Israeli rabbis support Palestinians
- Brierfield Peace Garden England Muslim urban youth
- Post 9/11 Peace and Reconciliation Garden Movement in New York City



Photo of girl with dust mask drawing flower near Ground Zero, September 13, 2001... and the Brooklyn Promenade with twin daffodil flower beds the following Spring.



"The garden has played a role in helping to calm the violence down round here."



"...My garden is the only place where I (am) leaving behind war and memories..."



"... the Torah itself declares, "Even if you are at war with a city . . . you must not destroy its trees." (Deut 20: 19-20)