



Central Arizona-Phoenix
Long-Term Ecological Research

CAP LTER



What is sustainability and why should we care?

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**What is this thing called
"sustainability"?**

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"To endure."

- typical online dictionary

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**"Preserving conditions necessary for the survival
of prosperous human societies."**

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**"The capacity to continue a desired condition or
process, social or ecological."**

– Tainter (2006)

Sustainability \approx family values

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

UN Brundtland Report: “Our Common Future” (1987)

What sustainability *is* and *is not*

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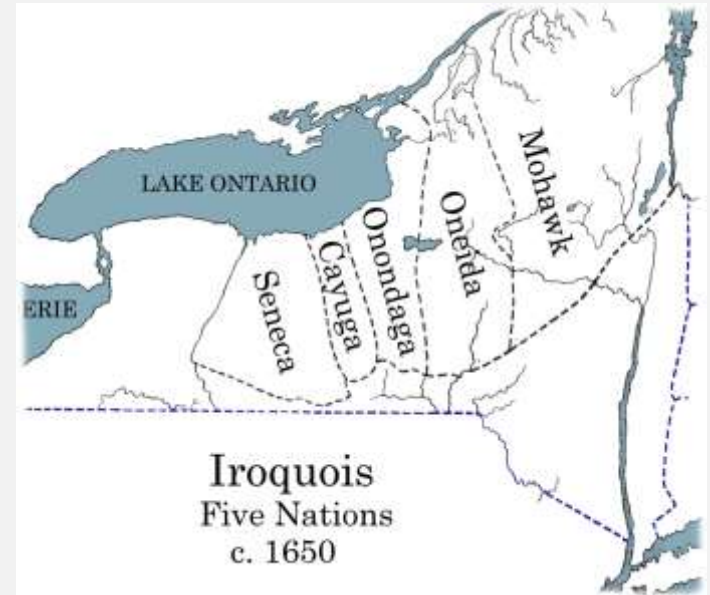
Sustainability *is* a process, and is as much about the future as about the present.

“Sustainability” would be better served if it was a verb and not a noun!

Is sustainability a new concept?

“In every deliberation, we must consider the impact of our decisions on the seventh generation.”

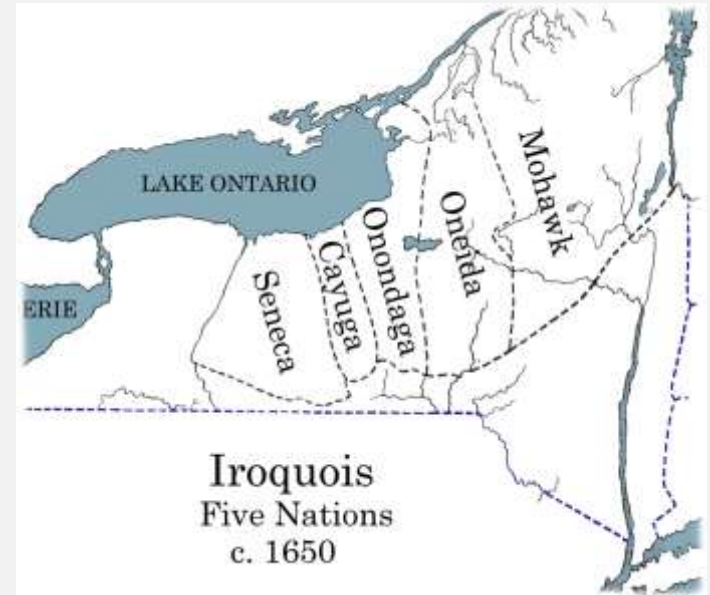
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“The earth belongs to each generation during its course...No generation can contract debts greater than may be paid during the course of its own existence.”

- Thomas Jefferson (1743 – 1826)

Another way of thinking about sustainability:

Sustainability is a lot like teen sex...

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The three spheres of sustainability

Environment, Society, & Economy



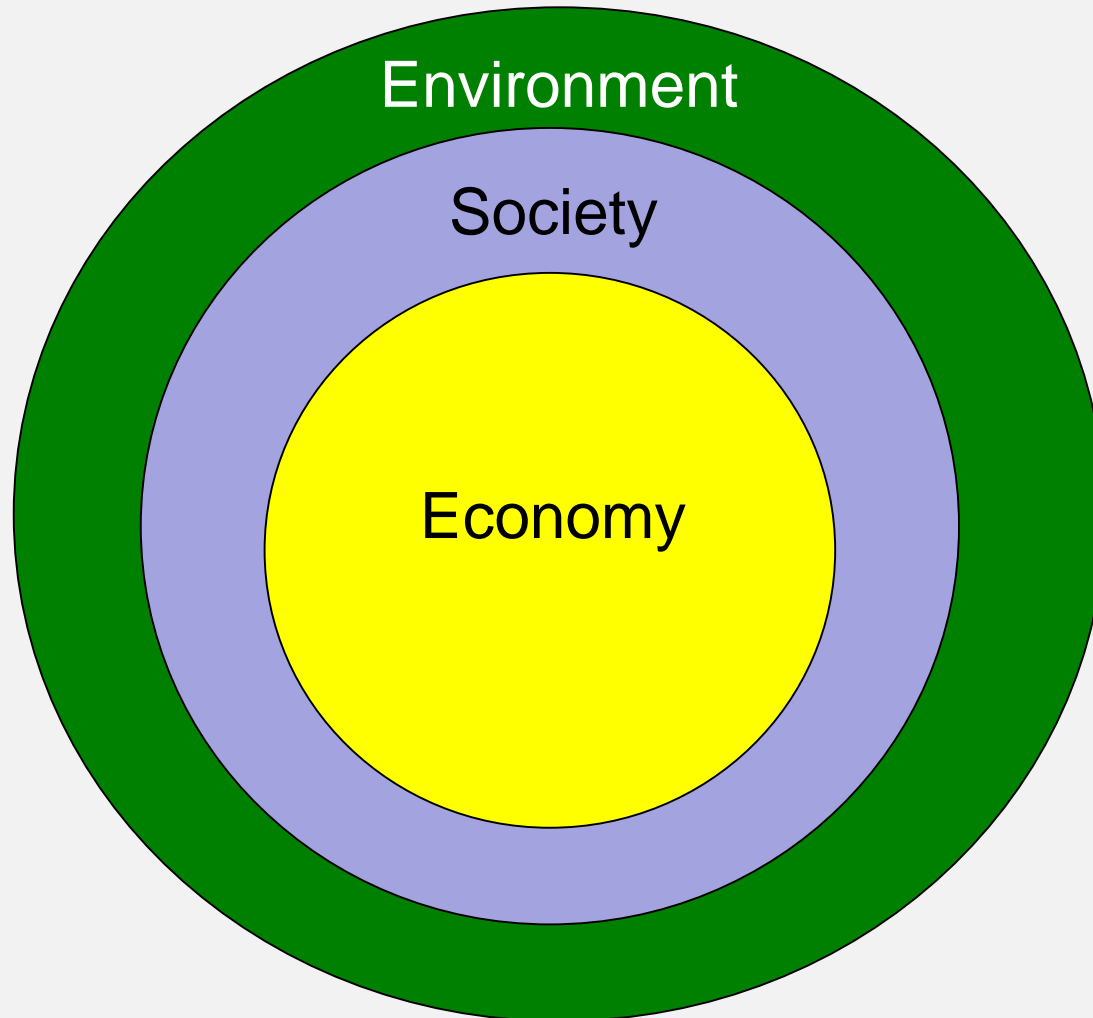
The three spheres of sustainability

But the Venn diagram is very deceiving



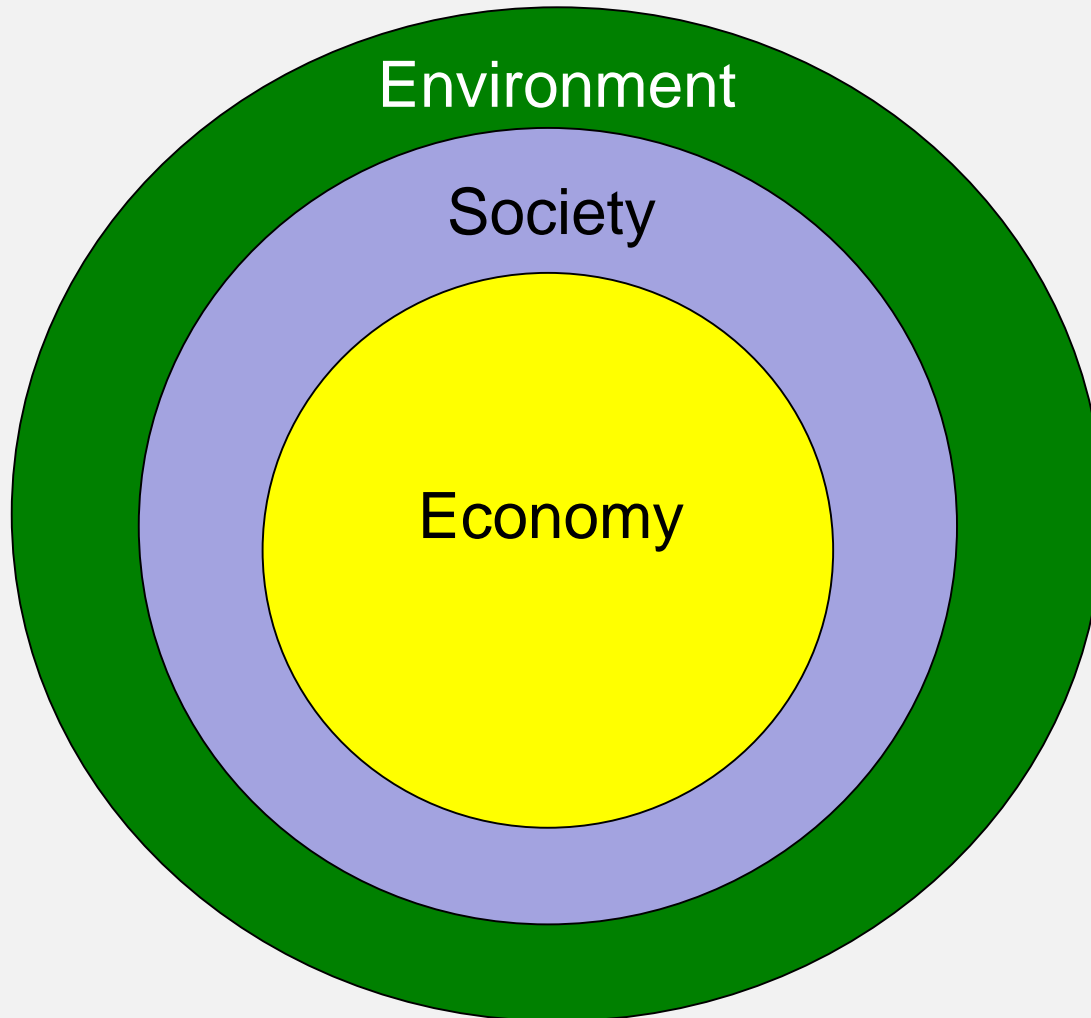
Better!

And one of these spheres has been sustainable without the other two for billions of years



Sustainability requires a holistic, interdisciplinary perspective

In other words, a Social-Ecological Approach



The State of Louisiana's Coastal Restoration Master Plan and restoration efforts



Louisiana's Comprehensive Master Plan for a Sustainable Coast

committed to **our coast**



This is a truly social-ecological approach to coastal restoration





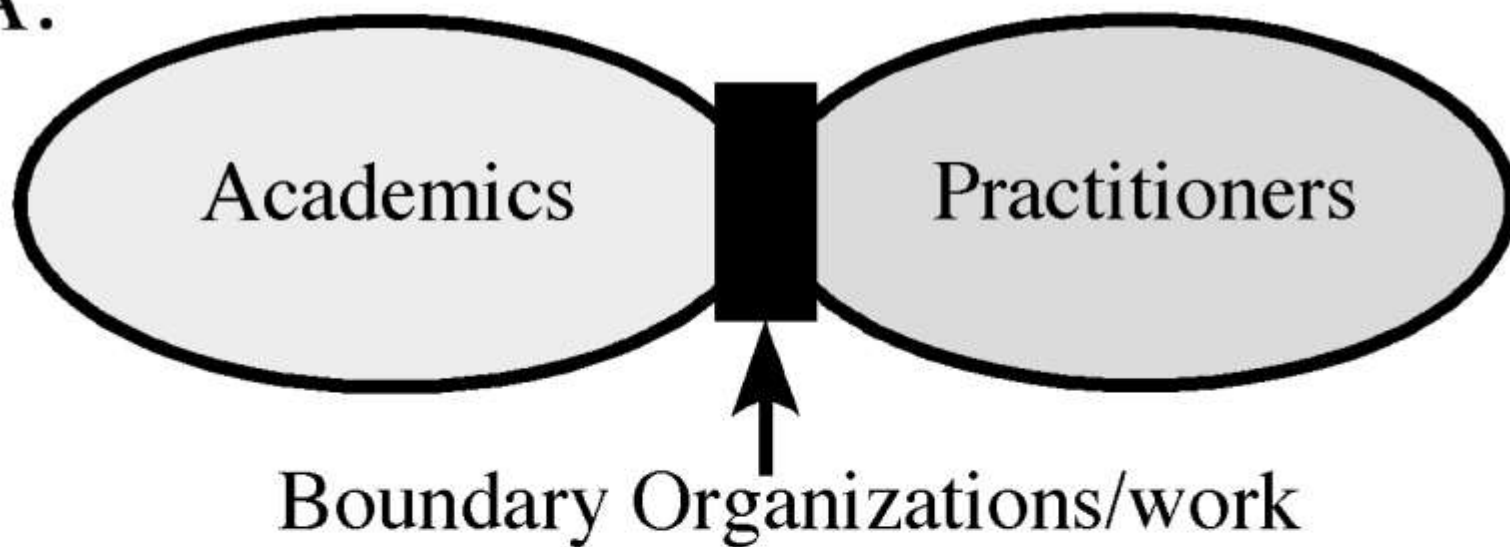
Co-production = knowledge to action



Managers, Policy-makers, Society

SCIENCE

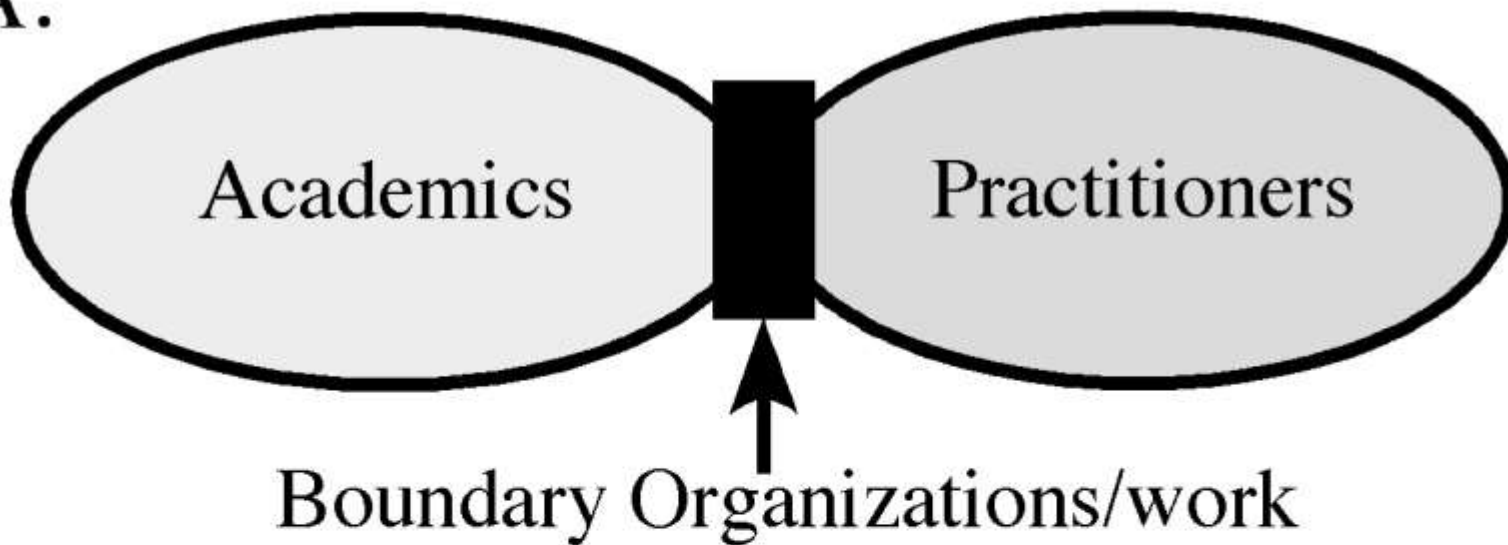
A.



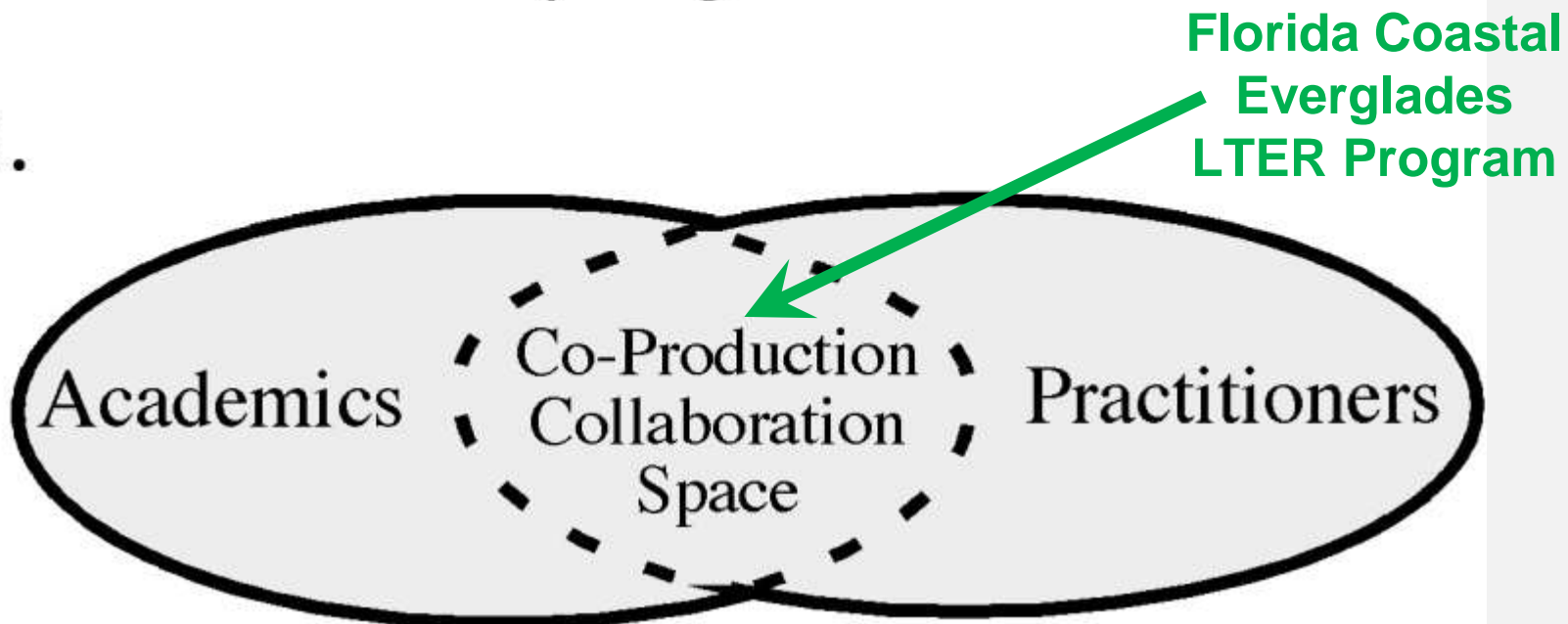
B.



A.



B.



Social-ecological resilience planning & adaptation

Solutions Center



South Florida, inclusive of Miami-Dade County, is one of the most vulnerable urban regions in terms of assets at risk from sea level rise and violent storms.

As an anchor institution in the community, FIU is in a leadership position to address the complex challenges of sea level rise through teaching, service and engagement. A unique advantage is the leveraging expertise available through local partners.

The Sea Level Solutions Center is a resource for city planners, businesses, citizens – looking for solutions. It provides information and education to help build resilience on multiple platforms.

Develops mechanisms that facilitate

- Education and communication of climate change science
- Creation of government and industry frameworks for timely responses
- Research to establish a sound basis for adaptation and resource management plans
- Informed adaptation decisions and actions based on those decisions
- Long term evaluation and implementation of mitigation strategies

Mission



Vision



Activities



A Challenge:

**Social-Ecological
Approach?**

Mr. Gorbachev, tear down this tieback levee!

