

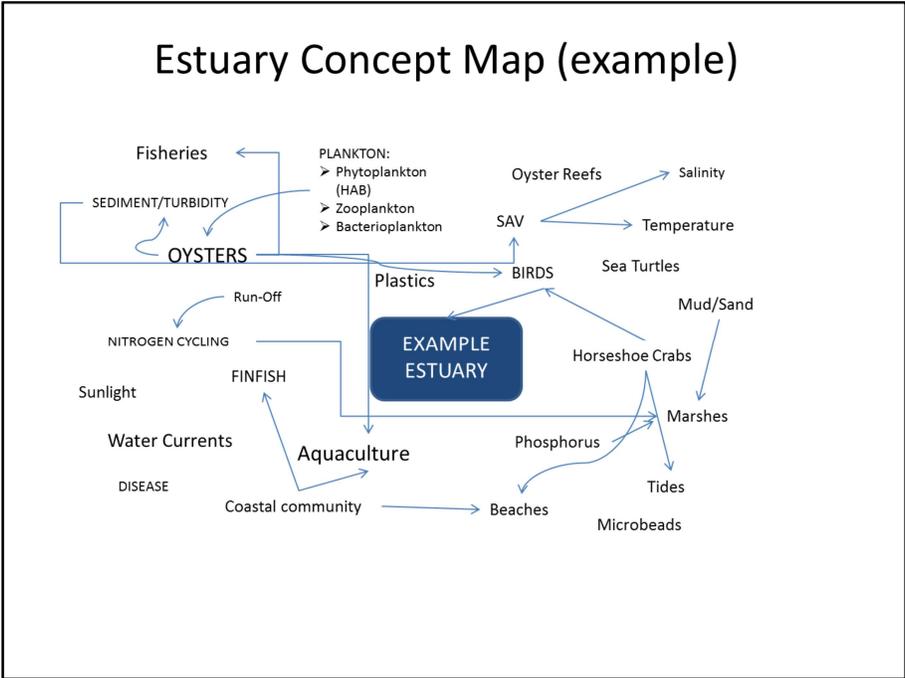
Instructor Slide Materials

Navigating Coastal Decision-Making: Using shellfish aquaculture as a model for socio-ecological knowledge development

For SESYNC S-E Synthesis Case Study teaching
module – Williams, Wenczel, Tavares

Concept Mapping

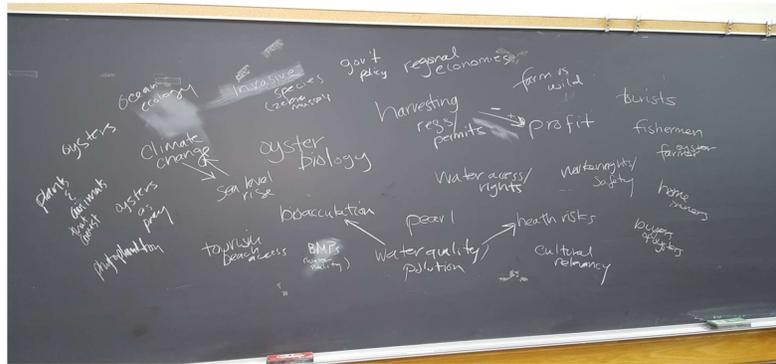
Estuary Concept Map (example)



Stakeholder Brainstorm/Listing (example)

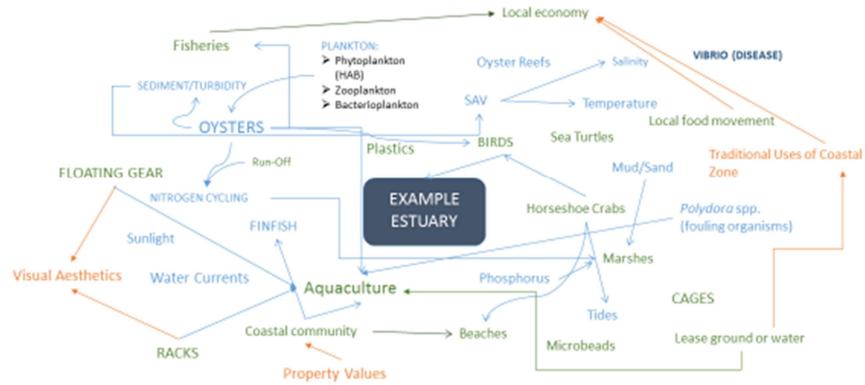


As an example, the map below was created by undergraduate students (mixed class years) following a discussion of coupled human-natural systems (after they had read and briefly discussed Liu et al 2014). They were asked to brainstorm oyster aquaculture as a coupled human natural system and had no prior in-class discussion of estuaries or oyster aquaculture.



Concept Mapping – Homework Mod

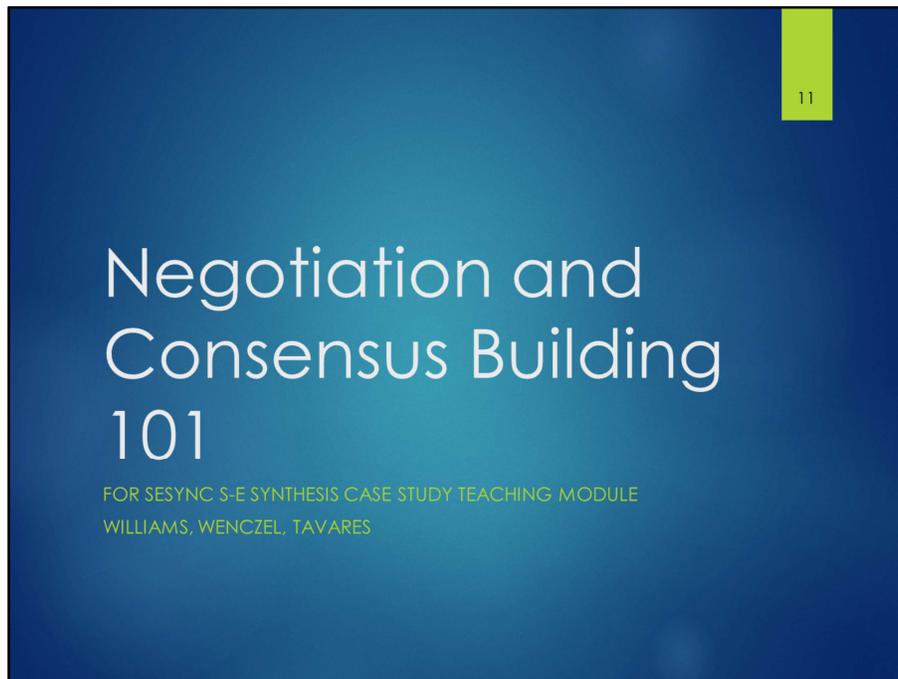
Topic Concept Map; HW C2 Modification



Legend

- Items in **Blue**= Biology/Ecology
- Items in **Orange**= Sociology
- Items in **Green**= Management (intersection of the two disciplines)

Negotiation Slides



See <http://www.sesync.org/for-you/educator/case-study-collection> for full case

Suggested readings (or similar)

Fisher, R., Ury, W. L., & Patton, B. (2012). Chapter 1: Don't Bargain Over Positions. In *Getting to Yes*. Penguin Books. Retrieved from

http://www.williamury.com/nowithconvictionizbedathanyes2plz/wp-content/uploads/books/yes/Getting_to_Yes-sample_chapter.pdf

Susskind, L. (2012). The Consensus Building Approach. *Agorà: Idee per La Mobilità Del Futuro*. Retrieved from <http://www.cbuilding.org/publication/article/2013/consensus-building-approach>

Siedel, G. (n.d.). Position or Interest Based Negotiation Unit in Successful Negotiation Video. Available <https://www.coursera.org/learn/negotiation-skills/lecture/xaCpq/a-position-based-or-interest-based-negotiation>

- ▶ Principled negotiation (as per "Getting to Yes"):
 - ▶ Separate the people from the problem
 - ▶ Focus on interests not positions
 - ▶ Invent options for mutual gain
 - ▶ Insist on using objective criteria
- ▶ Phases: Analysis, planning, discussion
- ▶ Difference between creating and claiming value
- ▶ Consensus building frame – premium on problem solving
- ▶ Negotiation based on power, rights, interests

Fisher, R., Ury, W. L., & Patton, B. (2012). Chapter 1: Don't Bargain Over Positions. In *Getting to Yes*. Penguin Books. Retrieved from http://www.williamury.com/nowithconvictionizbedathanyes2plz/wp-content/uploads/books/yes/Getting_to_Yes-sample_chapter.pdf

Interests vs positions – brainstorming exercise (Example):

Homeowner position – no apartment complex next door

Developer position – build an apartment

Homeowner interests – no noise, no change to traffic, no impact to view

Developer interests – be a good neighbor, create green spaces to recreate, be environmentally friendly

Position based negotiation = win or lose

Interest based negotiation = smaller building with bike share hub and green space between building and neighboring houses.

Stakeholder Assessment – What is it?

Stakeholder/ Issues	Issue 1	Issue 2	Issue 3	Issue 4
Stakeholder 1	Stakeholder 1 interest re: Issue 1	Stakeholder 1 interest re: Issue 2	Stakeholder 1 interest re: Issue 3	Stakeholder 1 interest re: Issue 4
Stakeholder 2	Stakeholder 2 interest re: Issue 1	Stakeholder 2 interest re: Issue 2	Stakeholder 2 interest re: Issue 3	Stakeholder 2 interest re: Issue 4
Stakeholder 3	Stakeholder 3 interest re: Issue 1	Stakeholder 3 interest re: Issue 2	Stakeholder 3 interest re: Issue 3	Stakeholder 3 interest re: Issue 4
Stakeholder 4	Stakeholder 1 interest re: Issue 1	Stakeholder 1 interest re: Issue 2	Stakeholder 1 interest re: Issue 3	Stakeholder 1 interest re: Issue 4

- A stakeholder assessment is a tool to explore interests of multiple parties and seek out areas of possible common interest to seek solutions.
- It is at times referred to as stakeholder analysis or stakeholder mapping, but each has slight different meaning in different fields (used in conflict/negotiation, project mapping, business management). Our focus here is on the use in conflict/disputes and seeking creative solutions, in the other settings it's also used to map out level of impact and control over different outcomes.
- In our context, it's typically conducted for a specific dispute, conflict, or community issue (i.e. a developer has proposed a new apartment complex that is meeting resistance from neighbors and local environmental groups).
- Stakeholders are listed and could include town managers, neighbors, the developer, etc; issues are listed and could include noise, environmental impact, traffic, cost, etc. The cells are filled in with the "interests" of the stakeholders relative to each issue.
- Stakeholder assessments are typically done by interviewing parties, but can also be done in a group setting at a meeting, or by an individual to prepare.
- It is not limited to a set number of stakeholders or issues.

Stakeholder Assessment (2)

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Stakeholder/ Issues					
Grower/ Aquaculturist					
Coastal Property Owner					
Conservation/Env. NGO Rep					
Local Chef					
Gov't Decision maker					

BLANK FOR USE IN CLASS – OR DRAW ONE ON THE BOARD

Stakeholder Assessment (3)

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Stakeholder/ Issue	Compliance	Endangered species	Economy	Outdoor Recreation	Water Quality
Grower/ Aquaculturist	follow rules from agency	Avoid impact	Maintain job	Time on water at work	Clean water for oysters
Coastal Property Owner	Not concerned	Want to see species thrive	Want property value to inc	Views and access to boat	Clean water to swim
Conservation/Env. NGO Rep	Comply with ESA	Want to see species thrive	Want people to donate	Access to birdwatch	Clean water for birds
Local Chef	Comply with health standards	Avoid impact (PR angle)	want people to eat out	Not concerned	Clean water for oysters
Gov't Decision maker	Comply with fed and state laws and regs	Protect as required under ESA	Strong tax base to fund work	Maintain access	Clean water per CWA

Sample filled in for case – this is not intended to be the “correct” table, it will depend on what the class brainstorms

Stakeholder Assessment - Sample

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	Stakeholders- Issues	Compliance	Wastewater facilities	Cost, taxes, and fees	Water Quality	Human Health	Biodiversity	Access/ Recreation
Government Agencies	NH DES (State)	Comply with CWA and associated regulations			Improve WQ to pre 1980 levels, interested in identifying pollution sources		Eelgrass and others as indicators	
	EPA	Enforce Clean water act (CWA)	Permit must comply with new levels		Improve to CWA regs	Concerns for drinking water standards, and contaminations		
	NH Fish and Game	Comply with NOAA-management plan		Avoid declining fishing licenses, (major input into F&G budget)	WQ location concerns in regard to biodiversity populations		Maintain increase biodiversity - reduce risk of loss; conservation and education efforts are a high priority	Increase health of great bay so citizens can continue to enjoy recreation.
	Stakeholders- Issues	Compliance	Wastewater facilities	Cost, taxes, and fees	Water Quality	Human Health	Biodiversity	Access/ Recreation
Industries	Fisherman/ Aquaculturists	Feel that since they comply with regulations, others should too.		Minimize losses from closed areas/times, minimize lower quality products	Wants healthy ecosystem for marketing products		Healthy ecosystem to support shellfish	Access to recreation, etc. Directly impacted by closures
	Realtors			Concerned taxes do not increase, bc will impact business	Improve	Improve	Improve	Wants access

This sample was created by Lindsey Williams, Natalie Kashi, Allison Enck, and Lucian Pizzano for a UNH class project exploring water quality in Great Bay, NH. It included many other sectors, just two are shown here.

- ▶ Two aspects of negotiation – topic and process
- ▶ Method to “Judge” negotiation
 - ▶ Produce a “wise” agreement (if agreement is possible)
 - ▶ Meets legitimate interests
 - ▶ Resolves conflicting interests fairly
 - ▶ Is durable
 - ▶ Takes community interests into account
 - ▶ Be efficient
 - ▶ Improve or at least not damage relationships
- ▶ Positional bargaining – hard versus soft

Optional Photos to Use in Course



Intertidal rack-and-bag culture of oysters along Cape Shore region of New Jersey

Photo credit:



Oyster farm in NH, racks lifted for cleaning. Photo credit Lindsey C. Williams



Cleaning bags of oysters at an oyster farm in NH. Photo credit Lindsey C. Williams



Oyster farm in NH (cages at low tide as seen from shore). Photo credit Lindsey C. Williams