Methods for social-ecological systems analysis: small-scale fisheries and climate change

Syllabus

ESM 296-4F
Instructor: Erendira Aceves-Bueno

Sept 28 – Dec 7, 2017
TH: 12:30-1:45
Bren Hall 1424, UC Santa Barbara

Course Description

The appropriate design of resources management institutions requires a holistic perspective that considers the synergies between ecological and social dynamics. Thus, in recent years, the concept of “social-ecological systems” has gained interest, facilitating decision making with this integrative approach. This course will introduce students to the theory behind social-ecological systems science and the tools most commonly used in their analysis. Through a class project, the students will be able to analyze real case studies and expand their analytical skillset. The final goal of the class is the creation joint peer reviewed publication.

The class will provide a brief introduction to the theory behind the existent social-ecological system frameworks, co-management and cooperatives through lectures and discussions. Through examining current theories around resilience and adaptation of social-ecological systems to climate change, students will also become familiar with key literature in the topic and insight from case studies.

Class Project

Using existing climate change vulnerability indices (Mcclanahan et al. 2008, Cinner et al. 2012) we will analyze the capacity of artisanal fishing cooperatives to adapt to climate change. The data to be used in this analysis was collected by Ovando et al. 2013.

Class Schedule

Session 1: 09/28
a) Presentation of the class and project
b) The tragedy of the commons

Required readings:
Session 2: 10/5

c) Governing the commons
d) The social-ecological systems framework

Required readings


Suggested readings


Session 3: 10/12

e) Co-management
f) Local traditional management systems
g) TURFs and Cooperatives

Required readings


Suggested readings


Session 4: 10/19

h) Climate change and fisheries.
i) Climate change and artisanal fisheries: Challenges and opportunities

Required readings


Suggested readings

**Session 5: 10/26**

j) Resilience, adaptation and adaptive capacity

**Required readings**

**Suggested readings:**

**Session 5: 11/2**

a) Case studies of cooperatives in Latin America

b) Discussion of the final projects. Tasks will be assigned for the peer reviewed publication

**Required readings:**

**Suggested readings:**

**Sessions 7,8,9: 11/3,16 and 30**

a) Development of the class project

**Sessions 10: 12/07**

a) Class conclusion and next steps