Final Presentation Guidelines for Group and Eco-E Projects

Satie Airamé
Bren School, Assistant Dean for Academic Programs

April 6, 2015
Project Briefs

• Briefly explain problem and solution
• Convey importance, significance and accomplishments
• Motivate reader to seek more information
Brief Parameters

• 4 pages
• Paper size: 11 x 17
• Text:
  – Single spaced
  – Clear, readable font
  – 14+ point for subheadings
  – 10-12 point for text
  – 8-10 point for captions, footnotes, references
• Margins
  – 0.75 inch margins
  – 0.05 inch between columns
• Use color but retain information in B & W copy
Insert the Project Title for your Group Project or Eco-Entrepreneurship Project Here
Brief Elements

- Environmental problem
- Significance
- Project objectives
- Background
- Approach
- Results
- Conclusions
- Acknowledgements
Brief Strategies

- Summarize problem, solutions, significance
- Organize with headers, captions, and other signposts
- Use photos, figures, tables, graphs and text boxes
- Reiterate main points in conclusion
Objective 3: Local Lobster Market

We sought to determine the potential to increase demand for lobster within the local market. Because fishermen can achieve a higher price when selling locally, transitioning sales to the local market has the potential to offset short-term losses in income associated with a reduction in the quota for the lobster fishery.

Results

1. Discrepancy in Lobster Sales
   Sales through various channels are documented in different GNP databases for 2012. As you can see below, the total amount of lobster sales was larger than the total reported landings by 3,515 kg or 25%.

   ![Graph showing lobster sales and landings]

   \[ \text{Local Purchased \, 2,091 \, kg} \]
   \[ \text{Export \, 10,484 \, lb} \]
   \[ \text{Total Landings \, 14,565 \, lb} \]
   \[ \text{Exports + Gifts + Local \, Total Landings} \]

   \[ = 3,515 \, \text{kg/year} \]

2. Local Versus Export Price
   Fishermen can get almost $23/lb when they sell to the local market as opposed to $14/lb when exporting. We then assessed the potential to increase local demand.

   \[ \text{Mean Price for Lobster} \]

   - Export
   - Local

   \[ \text{Price per lb sold} \]

   - $23 per lb
   - $14 per lb

3. Social & Educational Marketing
   Increases in local sales can be achieved by convincing more people to purchase lobster and increasing the average number of lobsters eaten. Marketing campaigns can be an effective means of achieving this goal. By convincing all potential lobster eaters (25%) to consume lobster, and by increasing the average number of lobsters eaten by 20% (to 2.27 per trip), the GNP can decrease catch by 13.1% while maintaining the current revenue in the fishery. For example, if the GNP determines a 19% reduction in catch is necessary, which is the respective value to achieve a f/M of 1.25, fishermen would only experience a loss in income of 5.9% as opposed to 10%.

Recommendations

A marketing campaign to increase demand in the local market has the potential to offset some of the losses fishermen would experience if the GNP reduces the quota. However, issues with monitoring and enforcement must be addressed first to ensure proper documentation of all lobster landed in the islands.

Introduction to the Lobster Fishery

The Galápagos Islands are located 1,000 km off the mainland coast of Ecuador. Made famous by Darwin’s early visit there, these islands are known for their unparalleled biodiversity and large number of endemic species. In 1978, the UN named the Galápagos a World Heritage Site.

Lobster is the most economically important species harvested in Galápagos. The majority of fishermen rely on the stability of this resource as a primary source of income. In addition to its importance in the local economy, lobster plays an integral role in the marine ecosystem. Studies show that lobster help maintain the health of marine ecosystems around the world.

Problem Statement

Despite the importance of this fishery, there is uncertainty about the biological health of the stock. The amount of lobster caught has declined for the last decade, with a slight increase in the last three years. It is unclear whether this is the result of a rebound in the stock or the result of increased fishing effort. An understanding of the status of the stock will determine whether current fishing pressure needs to be adjusted. Additionally, the current management strategies promote a race-to-fish scenario, with fishermen harvesting as much as possible to avoid being outcompeted by others.

Project Objectives

To address the issue of the decline in landings of spiny lobster and uncertainty surrounding the population:

1. Use data-poor assessments to evaluate the historical fishing levels and provide a tool for the Galápagos National Park (GNP) to self-manage in the future.

To address the hypothesis that lobster is being overfished in the Galápagos, we looked at two potential solutions:

1. Analyze the feasibility of a Territorial User Rights Fishery (TURF) to change fishermen’s incentives to long-term stewardship.
2. Determine the potential for increased sales within the local market to gain support from fishermen for catch reductions, while maintaining revenue in the fishery.

Summary/Future of the Lobster Fishery

Through our research, we have gained important insights to help in the sustainable management of the lobster fishery. We suggest:

1. Based on the model output, determine an appropriate target and adjust current fishing pressure to attain targets
2. Implement a small-scale TURF pilot project
3. Improve the enforcement and monitoring of lobster landings
4. Build on sustainability improvements through a marketing campaign to increase local consumption of lobster
**Objective 1: Data-Poor Assessments**

**Data-Poor Assessments**
A data-poor assessment uses less data than a traditional stock assessment. These models provide indicators of the health of the stock as opposed to an approximation of biomass. From these indicators, fishing pressure can be reduced or increased, and the quota can be adjusted accordingly.

**Objectives for the Tool**
- Easy to use
- Cost effective
- Annual evaluation
- Efficient data collection

**Model Selection**
We developed criteria for selecting an appropriate model. From this, we narrowed 12 of the available DPA to three: LBAR, LBSPR, and Catch Curve.

**Catch Curve**
Converts length-based data into age class parameters. A linear model is fitted to the age-based data. This total mortality (Z) is calculated. The known natural mortality (M) is subtracted to obtain fishing mortality (F).

**LBAR**
Translates length-based data into a length frequency histogram. The model uses the frequency at the mode and at Lmin (length at asymptote) to determine an average between the two values. A line is then fit to these data points with the slope representing total mortality (Z), from which the natural mortality is subtracted to yield fishing mortality (F).

**LBSPR**
LBSPR builds on the Catch Curve model. With age frequency data, it uses fecundity and weight at maturity as parameters to calculate the number of eggs produced by the "fished" or current population in relation to the number of eggs that would be produced in an "unfished" population. The output is the spawning potential ratio (SPR), the average fecundity of a recruit over its lifetime.

**Results**
The results of Catch Curve are shown to the right. F/M is the ratio of fishing mortality to the natural mortality. Many fisheries are managed at or below a F/M of 1. Lobster is a resilient species, and many lobster fisheries are managed at a higher ratio. We set a tentative target reference F/M point of 1.25. F/M values have historically been higher than this target, indicating overfishing. The recent increase in landings is also paired with high F/M values, which is not indicative of a rebound in the population. Additionally, our models show that the average length of lobster has declined through time. All of these are indicators of overfishing.

**Recommendations**
We recommend that the GNP use this tool on an annual basis to evaluate the status of the stock and to provide guidance in setting their quota. In the immediate future, we recommend determining an appropriate target based on the goals of the GNP and adjusting current fishing pressure to attain these targets.

**Objective 2: Territorial User Rights Fishery (TURFs)**

**Objective**
In order to change fishermen’s incentives and address overfishing, our objective was to assess the feasibility of implementing a TURF system in the Galápagos Islands.

**What is a TURF?**
Territorial User Rights Fisheries (TURFs) give individuals or groups exclusive access to marine resources within a specific area. By assigning property rights to a resource to fishermen, they are incentivized to protect the resource. Exclusive access is key to ensuring that fishermen who practice good resource stewardship benefit from the future returns associated with sustainable fishing.

**Results**

- Lobster is conducive to spatial management because it is a benthic species with a small range and low mobility.
- Legal precedence exists for TURFs in Ecuador, and a pathway to establish legal structure for a TURF is present.
- The potential for both immediate and long-term increases in revenue outweigh the potential costs.
- While there is some interest, the current level of social cohesion and desire to maintain status quo pose barriers.
- The lack of organizational capacity of the fishing cooperative and institutional instability pose challenges.
- Population centers and fishing grounds are disconnected geographically, posing complications for enforcement.

**Recommendations**
Our research shows that TURFs are feasible for the Galápagos lobster fishery. Social and management factors pose some challenges but could be addressed by starting with a small-scale pilot project to prove the benefits of TURFs to unwilling stakeholders. Geographic factors also present barriers to TURF implementation, and these barriers would have to be carefully considered in the design of a TURF system.
Project Briefs

- Send draft brief to Faculty Advisor and other reviewers recommended April 10
- Send pdf of final brief to Faculty Advisor and Academic Programs Coordinator before April 24
- Print 100+ briefs by April 20
- Give hard copies to your advisor, Satie & Casey
- Place briefs at back of room during presentation
- Place briefs on table by poster
# Final Presentations Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Deliverable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr 17</td>
<td>Pdf of poster due to Academic Programs Coordinator and Faculty Advisor; hard copy poster must be printed</td>
</tr>
<tr>
<td>Apr 16-22</td>
<td>Practice public presentations</td>
</tr>
<tr>
<td>Apr 24, 10 am</td>
<td>Hang poster and drop off presentation file on thumb drive, Fess Parker Doubletree, Sierra Madre South</td>
</tr>
<tr>
<td>Apr 24, 10:30 am</td>
<td>Class photo, Rotunda at Fess Parker Doubletree</td>
</tr>
<tr>
<td>Apr 24, 10:45 am – 1:15 pm</td>
<td>Sound check and practice (30 min per group)</td>
</tr>
<tr>
<td>Apr 24, 1:30 – 5:35 pm</td>
<td>Final presentations</td>
</tr>
<tr>
<td>Apr 24, 5:35 pm</td>
<td>Poster session and reception</td>
</tr>
<tr>
<td>Apr 24, 6:30 pm</td>
<td>After poster session, give poster and leftover briefs to Academic Programs Coordinator Casey Hankey</td>
</tr>
</tbody>
</table>
Dress and Parking

• **Dress:**
  - Business attire
  - Dress in business attire *before* you arrive
  - Don’t bring your clothes to change later
  - Speakers wear a jacket or button shirt with collar to attach the lapel microphone; wear a pocket or belt for battery pack; no scarves

• **Parking:**
  - Fess Parker Doubletree, 633 E Cabrillo Blvd, Santa Barbara
  - Access through Calle Puerto Vallarta from E Cabrillo Blvd or S Milpas St
Poster Session

- Hang posters on **Fri, Apr 24 at 10:00 am**
- Each group will have a small, round cocktail table for briefs and business cards (not cocktails)
- If you need more space or an electrical outlet, contact Casey (casey@bren.ucsb.edu) **today**
- Poster session begins **at 5:35 pm**
- During the poster session, have your business cards and resumes on hand, in case you meet a potential future employer.
Presentations

• Save your presentation file on a **thumb drive**
• Bring the thumb drive to the Compute Team in Sierra Madre South at 10 am.
• During your class photo, the Compute Team will save your presentation to the laptop in your presentation room
• During your practice session, **review** all of your slides
## Sound Check Schedule

<table>
<thead>
<tr>
<th>Time on Apr 24</th>
<th>Group</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 – 10 am</td>
<td>Insulin Water Risk</td>
<td>Anacapa/Santa Cruz</td>
</tr>
<tr>
<td>10:45 – 11:15 am</td>
<td>Swordfish</td>
<td>Sierra Madre North</td>
</tr>
<tr>
<td>10:45 – 11:15 am</td>
<td>Burbank</td>
<td>San Miguel/Santa Rosa</td>
</tr>
<tr>
<td>10:45 – 11:15 am</td>
<td>SBC Offsets</td>
<td>Anacapa/Santa Cruz</td>
</tr>
<tr>
<td>11:15 – 11:45 am</td>
<td>Lake Mead</td>
<td>Sierra Madre North</td>
</tr>
<tr>
<td>11:15 – 11:45 am</td>
<td>UCSB Energy</td>
<td>San Miguel/Santa Rosa</td>
</tr>
<tr>
<td>11:15 – 11:45 am</td>
<td>Slightly Nutty</td>
<td>Anacapa/Santa Cruz</td>
</tr>
<tr>
<td>11:45 am – 12:15 pm</td>
<td>Solo Energy</td>
<td>Sierra Madre North</td>
</tr>
<tr>
<td>11:45 am – 12:15 pm</td>
<td>Urban Water</td>
<td>San Miguel/Santa Rosa</td>
</tr>
<tr>
<td>11:45 am – 12:15 pm</td>
<td>Ag Ventura</td>
<td>Anacapa/Santa Cruz</td>
</tr>
<tr>
<td>12:15 – 12:45 pm</td>
<td>Chone Groves</td>
<td>Sierra Madre North</td>
</tr>
<tr>
<td>12:15 – 12:45 pm</td>
<td>Sea Level Rise SB</td>
<td>San Miguel/Santa Rosa</td>
</tr>
<tr>
<td>12:15 – 12:45 pm</td>
<td>Morro Bay</td>
<td>Sierra Madre South</td>
</tr>
<tr>
<td>12:15 – 12:45 pm</td>
<td>Hollywood</td>
<td>Anacapa/Santa Cruz</td>
</tr>
<tr>
<td>12:45 – 1:15 pm</td>
<td>TURF Tools</td>
<td>Sierra Madre North</td>
</tr>
<tr>
<td>12:45 – 1:15 pm</td>
<td>Wildlight</td>
<td>Sierra Madre South</td>
</tr>
<tr>
<td>12:45 – 1:15 pm</td>
<td>Alternatives</td>
<td>San Miguel/Santa Rosa</td>
</tr>
</tbody>
</table>
Lunch

• Take a break before or after your sound check to eat a good lunch so that you are alert and energetic for your presentation and poster session!

• Pack some high-protein snacks and a water bottle so that you have something handy in case you get hungry or thirsty!
# Final Presentation Schedule

<table>
<thead>
<tr>
<th>Time on Apr 24</th>
<th>Group</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:30 – 1:45 pm</td>
<td>Welcome</td>
<td>Santa Ynez/San Rafael</td>
</tr>
<tr>
<td>2:00 – 2:35 pm</td>
<td>Swordfish</td>
<td>Sierra Madre North</td>
</tr>
<tr>
<td>2:00 – 2:35 pm</td>
<td>Burbank</td>
<td>San Miguel/Santa Rosa</td>
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<td>2:00 – 2:35 pm</td>
<td>SBC Offsets</td>
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<td>2:45 – 3:20 pm</td>
<td>Lake Mead</td>
<td>Sierra Madre North</td>
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<td>2:45 – 3:20 pm</td>
<td>UCSB Energy</td>
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<td>Slightly Nutty</td>
<td>Anacapa/Santa Cruz</td>
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<td>3:30 – 4:05 pm</td>
<td>Solo Energy</td>
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<td>Urban Water</td>
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<td>Chone Groves</td>
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<td>Morro Bay</td>
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<td>4:15 – 4:50 pm</td>
<td>Insulin Water Risk</td>
<td>Anacapa/Santa Cruz</td>
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<tbody>
<tr>
<td>5:00 – 5:35 pm</td>
<td>TURF Tools</td>
<td>Sierra Madre North</td>
</tr>
<tr>
<td>5:00 – 5:35 pm</td>
<td>Wildlight</td>
<td>Sierra Madre South</td>
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<td>Alternatives</td>
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<td>Hollywood</td>
<td>Anacapa/Santa Cruz</td>
</tr>
<tr>
<td>5:35 – 6:30 pm</td>
<td>Poster Session and Reception</td>
<td>Santa Ynez/San Rafael</td>
</tr>
</tbody>
</table>
Speakers

• Introduce the members of your group.
• Speak slowly and clearly.
• Avoid jargon.
  – If you use it, define it and periodically remind your audience of what it means.
• Avoid fillers: “um,” “like,” “kind of,” “sort of”
• Practice smooth transitions between speakers.
• Designate a back-up speaker for every speaker who plans to present.
  – If the primary speaker is sick or has an emergency, the back-up speaker should be ready to present.
Microphones

• Equipment:
  – 1 handheld and 2 lavalier microphones

• Speakers 1 and 2:
  – Put on lavalier mic
  – Look at staff or student assistant to confirm that mic is ON. If not, turn it ON.

• Speaker 3, if applicable:
  – After Speaker 1 finishes, turn mic to mute or off and give mic to Speaker 3.
  – Don’t forget to turn mic back ON!

• Panel:
  – Use handheld mic to answer questions.
  – Speak into the mic.
Panelists

• Sit up straight and look alert.
• Direct your enthusiastic gaze to the speaker (best) or audience.
• Do not talk to each other.
• Do not chew gum.
• Do not wave at or otherwise communicate with people in the audience.
• Turn off cell phones and other disruptive devices.
• Be engaged in Q + A.
• Clear your table of glasses, cups, papers, pens, etc., when you leave.
Goal and Audience

- **Goal**: Present key findings of group project to a public audience in a meaningful way.

- **Audience**:  
  - Bren School and other UCSB faculty, students and staff  
  - Parents, siblings, and friends  
  - Potential employers  
  - Members of the community  

- If you would like your external advisory committee to attend, you should invite them.
Focus

- Focus on key findings and why these matter to your audience
- Important elements to communicate:
  - What is the problem or question?
  - Why should your audience care about it?
  - What is the solution to your problem or question?
  - What are the benefits or risks for your audience of implementing the solutions you propose?
- Avoid flashy animations
Timing

• 35 minutes total
  – For presentation and questions

• 20-25 minutes of presentation
  – 2 speakers, preferred
  – 3 speakers, practice seamless transitions

• 10-15 minutes of questions
  – From audience
  – Targeted to entire group
<table>
<thead>
<tr>
<th>Topic</th>
<th>*Approx. # of slides</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title slide <em>(must display a photo of your group)</em></td>
<td>1</td>
</tr>
<tr>
<td>Problem and/or questions</td>
<td>3</td>
</tr>
<tr>
<td>Why should your audience care?</td>
<td>2+</td>
</tr>
<tr>
<td>Solutions or findings</td>
<td>5-7</td>
</tr>
<tr>
<td>Benefits and risks of implementing the solutions</td>
<td>3+</td>
</tr>
<tr>
<td>Conclusions and/or recommendations</td>
<td>3</td>
</tr>
<tr>
<td>Acknowledgments</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>20-25</td>
</tr>
</tbody>
</table>

*Actual number of slides may vary, depending on the project!
Project title

Picture of group members here
(you also may include your advisor)

Group or Eco-E project members
Advisor
Client (if appropriate)

Final Presentation
Bren School of Environmental Science & Management
April 24, 2015
Introduction

• **Problems/Questions:**
  - Clearly state problem and/or questions
  - Include sufficient background to motivate the need for your project
  - Do not give a comprehensive description of the context

• **Who cares?**
  - Describe who cares about the problems or questions
  - Include reasons why your audience should care
Findings/Solutions

• Present findings or solutions to your questions or problems

• Include graphics that illustrate your key findings in a way that will connect with your audience
  – Avoid overly complicated tables and figures
  – Simplify quantitative information so that you convey the meaning

• Explain what your results mean
Conclusions

• **Benefits/Limitations:**
  - Describe benefits and limitations of your solutions or findings
  - If appropriate, provide recommendations based on your findings
  - Identify lingering or new questions and next steps

• **Acknowledgments:**
  - Thank your advisors, funders, and collaborators
Questions

• Identify potential questions in advance and discuss appropriate responses
• Divide topics such that each group member plans to cover topics with which s/he is most familiar
• Select a facilitator to manage questions
• The facilitator should
  – know topics that group members will address
  – repeat questions for the audience using the microphone
  – quickly select the group member(s) to respond to the question
Strategies for Q+A

• **Repeat** the question to clarify the question and give yourself and your group time to think about the response.

• **Directly and succinctly answer questions.**

• **If you don’t know the answer, say so.**
  – Provide other related information, if you have it.
  – Ask reviewers or audience if they have information to help answer the question.
  – Investigate the question further (after the defense), if the response has important implications for your project.

• **Do not fabricate responses to questions if you don’t know the answer!**