HW:

-Goal think through empirical questions that can answer once we have this data: hw for this week

-Dry run of El Rosario presentation with Costello the week before the trip

Trip:

-Bring cameras (waterproof and otherwise) on the trip

-Ask Laura Lee to rent video equipment from SFG

-We meet at San Clemente and then pick up Costello at his house

Governance indicator analysis:

-Empirical: Very hard to do causal linking between governance indicators and outcomes because of empirical issues. We know communities A, B, C are well-managed and run regression of management effectiveness against governance and see that ones that have low number of fishers are the most effective. Issues: not enough surveys, they chose to have good enforcement or not and because they chose you can’t treat it as a randomly assigned exogenous variable so a regression would not be plausible

-If ask questions in right way, can do empirical. How much illegal fishing here vs. how much do you think illegal fishing in neighboring community. Issue: are not close by, so can’t do. Or a better idea, **do you think that there has been less illegal fishing since implementation?**

-Qualitative: descriptive of system: what percentage of effective reserves have low illegal fishing

-How do know it is the fact that it is small that make it well-managed? They choose that because of something you don’t have data on which is causing it to be well-managed = can’t do regression unless all qualities were randomly-assigned

-Mar: how governance indicators relate to effectiveness -> would be subject to same critique

-**Say what hypotheses are from literature and then look at data and see if hypotheses are** true and then a discussion of this could be a causal link or a correlation for these other reasons, but regardless there is a relationship there

-Ex. If fishable area is open access, expect reserve to be illegal fished/not effective. But if was TURF, expect the opposite. We could test that. **How does exclusivity of fishing area affect effectiveness of reserve?**

-Wanted causal: would find natural experiments: TURF can only be that big, not that chose it but was fixed and was law to be that size. Exogenous shock that forced one of indicators to change (ex. Madagascar and community-based reserves)

-We are not going to have large data set, but have 1 or 2 to do an illustrative example.

-Expect more illegal harvesting in MPA with open access outside than TURF. **Ask a question of illegal harvesting inside reserve and also for outside of reserve (on a scale of 1 to 10). Then ask then why do they think that there is illegal fishing (open ended question)? Do an analysis of the language those people use** (Ex. everyone can fish here, why shouldn’t I?). Try to extract out of their response a story that refutes or supports our hypothesis. Want them to say “My reserve is not working because…”

-Do both: the story and the p-value - Think about who to record and how to record it so can match p-value with testimonial

-Ask them: **Your reserve is for lobster: is it big enough for lobster? Then match with size of home range for home range and size of reserve**.

-Are fishers organized in a governance structure that fosters communication and decision-making. If exists, what is it?

-**What if people who are more involved in COBI think that the reserve is working better than it is?** Aka does biophysical data match with what they said

-Knowledge index: (assume that transect is right and what fishermen see, can see changes in real life -> are you wrong -> Costello doesn’t care about that). **For every formal p-value, can say what community members think about that for biophysical.** Ask them why, but they say because of the reserve (aka been brainwashed) or when didn’t see an increase, said because of climate change. But if every time it’s good they say the reserve, but when it’s not they come up with another reason (can’t be the reserve). Ex. landings went down but not because of the reserve

\*Set right questions in place so that have the right data to answer these questions

-Maybe places with TURFs, the biophysical data and perceptions match. But for open access, they don’t

-Or ask how illegal fishing affects abundance? Maybe not in app, but on the side

-Probably leaning towards the perception questions, because will only have data from 1 or 2 communities so correlation may be difficult

Us:

-JC: correct for inflation

-Sean: double check with scaling for color results -> have new version for Fall Review Meeting

-Present results of El Rosario for Fall Review Meeting

-Hypotheses from literature -> is that true with reality

-Work on survey questions -> is it working and why?

-Presentation for Plantiga