**OHI Hawaii Lessons Learned**

**Stakeholder engagement**

Challenges

* Not another index? Freshwater Index, Watershed Index, Reef Health Index, etc
* Global model perceptions – had to overcome with some stakeholders
* Stakeholders stretched to capacity with other meta-analysis and large projects/priorities or project seen as a threat to ongoing projects or initiatives by taking investment and attention away
  + OTP, HMARC, Aloha+, NOAA Coral Reef Report Card

Solutions

* Highlight what is different about OHI
  + Combination of ecological, social, and economic values for ocean health
  + Cross sectors and management areas for more holistic assessment of region ocean
  + Availability of data and transparency of index
  + Repeat assessment to measure progress
    - This is often what we say to raise support for the index but this reality depends on the partnerships being maintained and investment in repeat assessments which is not secured in most cases
* Need to show synergy directly with other initiatives
  + This is hard to do when developing the Index as some of these synergies or connections will only be made explicit when the goal models are developed
  + Remind stakeholders that they are important to understanding overall ocean health
  + Show through matrix or graphic at all presentations and communication events
* Collaborative partnerships
  + LOR, data usage, logos and messaging
  + Form early to encourage ongoing participation
  + Form smaller working groups

**Communication**

Challenge

* Trade-off between ease of communication and detail on the Index
  + This is especially difficult with among diverse stakeholders – private, community, scientists, mangers This is a major challenge to keeping private and community partners engaged.

Solutions

* Larger stakeholder groups develop the goal philosophies and indicators
  + Similar indicators were developed and agreed upon at both the West Hawaii and Main Hawaii assessment scales during these larger stakeholder workshops
* Expert working groups to provide data and develop the details of the goal models

**Data acquisition & management**

Challenges

* Availability of data – one of the strengths of the OHI is data acquisition into one place – one of the weaknesses is loss in value of that data to partners for later uses if aggregated to OHI spatial scale
* Communicating data needs – how many years, summarized to what scale, etc
  + Hard to tell partners how to summarize data or data needs without first seeing the data they have – different goals have different scales, summarize by habitats is also important

Solutions

* Create links to original data sources or better yet, searchable database of original data
  + this has to be updated as the assessments are updated

**Scale**

* Traditional management scales (effective management scales) vs contemporary/policy management scales
* Decisions on what data to include based on messaging and or spatial scale
  + Example: fisheries – longline data accounts for >90% of the fishery but most of the longline data comes from outside the spatial region - include to show increased value of oceans to Hawaii or donʻt included it because not coming from Hawaiiʻs waters

**Adapting Goal Models**

* FIS
  + Spatial scale is different depending on the fishery
    - Pelagic, bottomfish, and coastal pelagics are at the scale of the EEZ
    - Reef/nearshore fisheries are at the regional scales - challenge – reduces the weight of the reef fish score but reef fish are included in AO also (could divide catch by regions for EEZ fisheries)
    - Used multiple sustainability scores that are dependent of the type of fishery
    - Did not use Fmsy – not available for all fisheries assessments
    - Did not use longline data for catches from outside Hawaiiʻs waters but landed in Hawaii
* AO
  + Goal based on two indicators: Access and Availability
    - Availability
      * Fish biomass scores – fish biomass in region in reference to pristine reef fish biomass (Williams et al. 2015) – worked with NOAA report card and used their indicators
      * Pelagic fish availability scores based on long term trends in catch data – to be assessed and added to the goal model
    - Access – two sub indicators, both remove MPAs and military zones
      * Boat access
      * Shoreline access
* Sustainable Tourism
  + Goal based on three indicators: Visitor generated revenue, resident sentiment towards tourism, and protection of environment resources (freshwater and coastal/nearshore areas)
* SP
  + LPS
    - Marine managed areas to 3nm – part of the state initiative to protect 30% of the nearshore marine areas by 2030
  + CON (connection to place)
    - Proxy for the connection or value that people have for oceans and coastal areas
      * Recreation rates in ocean and coastal activities
      * Hawaiian place names
      * Stewardship actions