**OHI documentation**

FIS

Data layers used

Commercial catch data (2012-2016)

Non-commercial catch data (used as a multiplier for commercial catch data)

Stock assessment from pelagic, bottom fish, and reef fish. Stock assessments did not over-lap with the most recent catch data. The most recent stock assessments were 2012-2013 for most species. I used the last ten years of stock assessment data to run a linear regression model to predict stock status to 2016. If stock status was non-linear then the ten year mean stock status was used. The stock indicator for pelagic species was SB/Sbmsy. Bottom fish stock assessment was for the aggregated species complex for the Hawaiʻi deep 7 and used B/Bmsy as the stock indicator. Reef fish stock assessment used the spawning potential ratio (SPR) as the stock indicator the reef fish spawning stock was compared to the Northwest Hawaiian Islands and the stock assessment is not reported by year so the stock status was held constant over the 5 assessment years. Used median scores for each group (pelagic, bottom, and reef to gap fill for species that lack formal stock assessments.

Mariculture

Tourism

Data from dbedt and HTA. Used information on the statewide visitor contribution to inflation adjusted (real) GDP from HTA with a HTA identified reference of $13,280 mil by 2020 or 2.5% annual growth rate. Visitor generated GDP was estimated to county level by weighting GDP by the average daily number of visitors to each county (visitors defined as overnight stays). Social and cultural values were added to the model though HTA visitor sentiment surveys. Three questions have time-series information and were used to score the agreement or sentiment of residence on the benefits and impact of tourism on Hawaii residence. The three questions were normalized for a score of 0 to 100 with 100 being positive or agreement on positive impacts of tourism for residence of Hawaii. The three questions were averaged and scored to a reference value of 80% as set by the Hawaii Tourism Authority as their target acceptance rate. Environmental protection data comes from the Aloha+ dashboard on marine managed areas with a reference rate of 30% nearshore areas effectively managed by 2030. The geometric mean of visitor estimated GDP, sentiment, and environmental scores was taken to calculate regional scores for sustainable tourism.