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Most ecological indicators are invoked in a broader, more holistic ecosystem-based fisheries management (EBFM) context. Although there are several indicator taxonomies or frameworks, there are some common approaches and properties to consider when selecting which ones to use. Our empirical and simple modeling results generally concur with model results from elsewhere in the world. Most ecological indicators in an EBFM context typically include some metrics associated with:

- size,
- production,
- diversity,
- "canary" species,
- energy flow – trophodynamics,
- habitat,
- physio-chemical regime.

Socio-economic and management performance/ response indicators also merit consideration. Many of the data needed to develop these indicators are extant; producing the indicators often requires a new perspective on data mining. Once a set of indicators has been identified and culled, there are three main ways that we and others tend to present them: traffic lights, surfaces or polar coordinates, and multivariate components.

Linking indicators to decision criteria remains a key challenge. We have studied two main approaches to this end. First, we explored multivariate approaches to identify reference directions, surfaces, poles, quadrats, *etc*. (*i.e.*, regions) that provide a strategic, bounding (of what is scientifically possible) of potential ecosystem states. This approach is helping us to define aggregate or systemic regions of desirability (or non-desirability). The second approach seeks to develop ecosystem or aggregate reference points that are more tactical (*i.e.*, binding) in nature, analogous to many of the traditional fishery or toxicological reference points. Additional research is needed to establish relationships between these indicators and their major drivers, particularly fishing pressure in an EBFM context.

The use of indicators has been varied in our region, much like in the rest of the world. Currently indicators are used primarily to elucidate ecosystem status, effectively serving as a heuristic tool to reveal key ecosystem processes and patterns. The emphasis on status is common, needed, and should not be overlooked; we can now feasibly assess the status of marine ecosystems, in an integrated and holistic manner in ways that previously were never done. Even providing this material as contextual background for EBFM is useful from many perspectives. Although still in development, we are exploring the strategic use of indicators to set feasibility bounds on various ecosystem configurations. Like elsewhere in the world, the tactical use of indicators remains a longer-term prospect, but there have been some instances when ecological indicators have been used in this manner to affect change in how we manage living marine resources.

We note, positively, that status indicators exist, management indicators exist, and ecosystem reference points/regions exist. But we are cautious to note that ecological indicators do not equate to reference points, and reference points do not equal control rules; *i.e.*, one needs to be judicious in the use of indicators. Given this concern, we are optimistic that ecological indicators can be quite useful for further development of EBFM approaches. Finally, continuing to develop indicators for EBFM use also highlights the continued commitment necessary for the underlying monitoring and modeling efforts that provide information requisite to producing these indicators.