I need to implement a social and economic monitoring program for an area of marine estate

Designing social and economic monitoring can seem like a daunting task. In this factsheet we provide a few key pointers to get you started, highlighting a systematic approach from objectives of monitoring to data.

What is social and economic monitoring?

Humans interact with marine environments in two key ways: we value the marine estate, and we impose pressures upon it. At the same time management or behavioural interventions are often used to modify behaviour and achieve some balance of pressures and value. This system shown in Figure 1 evolves over time: pressures affect the marine estate which affects the values we receive. Social and economic monitoring means monitoring the human parts of this system but is often best done when integrated with biological monitoring of the marine estate.

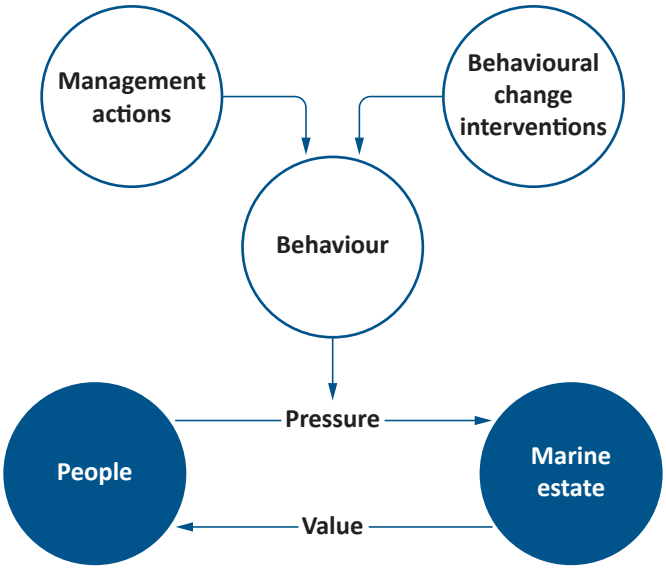

Figure 1: The marine management system.

***Pentagonaster dubeni*.** Image: Jemina Stuart Smith, IMAS

System of Environmental Economic Accounts – Ecosystem Accounting (SEEA-EA) framework

The SEEA-EA framework is an integrated framework that focuses directly on the values provided to people from the environment (i.e. ecosystem services) and understanding how this is linked with the health of the marine estate (Figure 2). By developing a time series of data of the marine estate assets and values to people it is also possible to answer questions about changes in conditions or values provided by marine environments (e.g., surveillance monitoring). These questions can be about the effectiveness of particular management actions in decreasing pressure, improving marine assets, and enabling adaptive management.

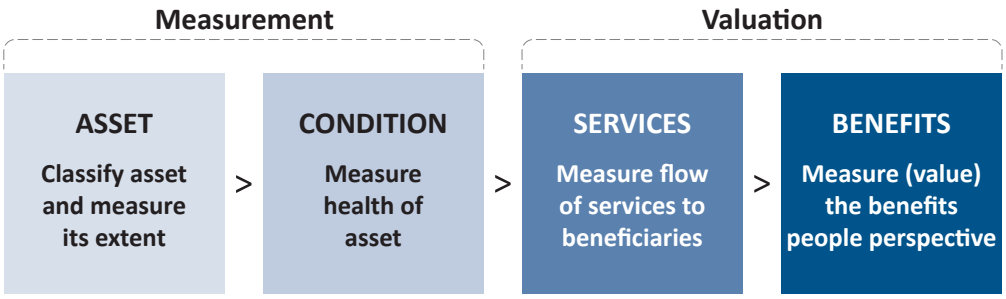

Figure 2: System of Environmental Economic Accounts – Ecosystem Accounting (SEEA-EA).
Source: Adapted from DELWP (2015).

Coris auricularis.
Image: Vranken Marti

Data

Monitoring of ecosystem assets largely reflects data already collected and applied for monitoring natural values. Applying the SEEA-EA framework to social and economic monitoring means studying ecosystem service flows in the context of the health of the marine environment. SEEA-EA recognises four types of ecosystem services. The first, supporting services, are the ecological processes that underpin ecological health and ultimately the other services. As they do not directly provide benefits to people, we ignore them here, but note their importance. The remaining three ecosystem services provide direct benefits to people and include: Regulating, Provisioning, and Cultural. Indicators for monitoring a marine estate for each of these three ecosystem service types are shown in Figure 3.

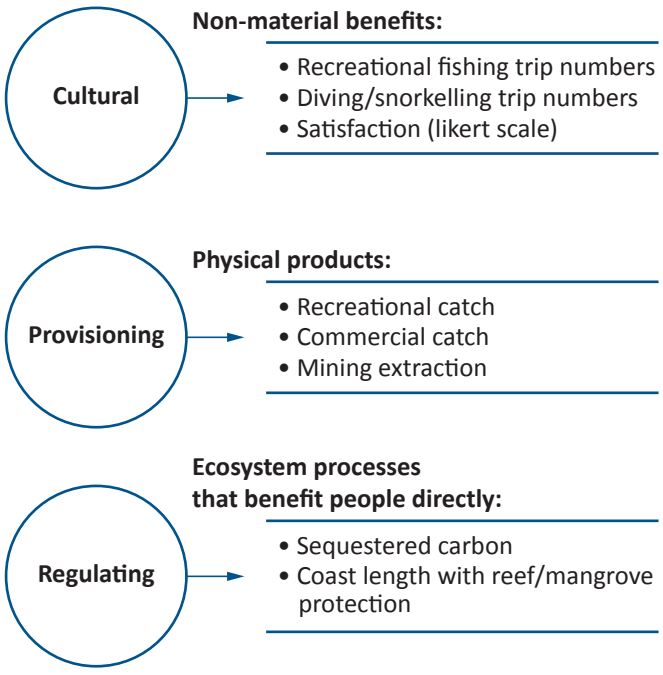

Figure 3: Ecosystem service types and associated data.

For more information see Factsheet: Frameworks and data to account for Environmental and socioeconomic assets and settings [hyperlink to come]

Piloting the Ocean Accounts approach

Geographe Marine Park, Western Australia: The marine park attracts visitors for commercial and recreational purposes, including fishing and whale watching, and the park is home to many species of fish and other animals such as whales. The key objectives of this work to develop pilot ocean accounts were to: (i) Provide structured environmental, cultural, social, and/or economic information to contribute to the Monitoring, Evaluation, Reporting and Improvement (MERI) system informing ongoing management of the marine park; (ii) Improve understanding of how ocean accounts can assist the sustainable management of marine resources; and (iii) Trial the internationally accepted frameworks and Technical Guidance on Ocean Accounting in an Australian marine context and assess feasibility for broader application.

The work focused on the four key ecosystems present in the region (seagrass meadows, sandy bottoms, rocky reefs, and kelp forests), and on the four key groups of users (fisheries, recreation and tourism, carbon sequestration, and vessel parking and transportation). Further information on the case study available in IDEEA Group (2020).

REFERENCES

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Meet your knowledge holders

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