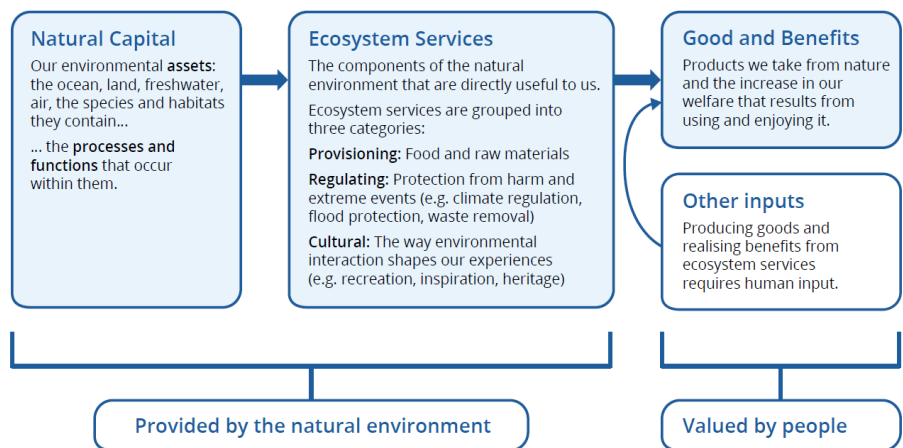


Valuing Marine Ecosystems – Taking into account the value of ecosystem benefits in the Blue Economy

A Blue Growth Strategy that can provide marine ecosystem services and benefits for future generations, calls for a better incorporation of the values stemming from marine ecosystem services and natural capital. By evaluating the impacts of human activity on ecosystem services and their social and economic consequences, outcomes of ecosystem valuation studies can highlight the trade-offs between actions to reverse the declining states of marine biodiversity and ecosystems, and possible competing economic interests. A wide array of methods and techniques for ecosystem valuation exist, but are only occasionally implemented in policy decisions.

The purpose of ecosystem valuation is not to price-tag nature, but to help answer clearly defined marine policy questions, as it can help visualize and quantify (in monetary or non-monetary terms) the diverse direct and indirect contributions of ecosystems to human well-being. Ecosystem valuation studies need to take the specific context, knowledge and spatio-temporal scale into account with the appropriate level of complexity. This requires a transdisciplinary approach and the inclusion of socio-economic drivers.



Key recommendations and actions to further develop and implement ecosystem valuation include:

- *Include ecosystem valuation in marine management decision models.* Ecosystem valuation has advanced significantly but the results are rarely used in marine management and policy decisions. Ecosystem valuation should be an integral part of marine management decision models to advance their application and increase the available results;
- *Promote the harmonization of ecosystem service frameworks.* Agreement on a standardized ecosystem services framework based on a holistic approach would improve the use and comparability of ecosystem service assessments at global and national scales;
- *Develop a set of indicators for ecosystem services that can be included under existing monitoring programmes.* Suitable ecosystem indicators that can link ecosystem components to ecosystem services need to be included in existing monitoring programmes, e.g. under the MSFD;
- *Create open databases that contain the data, meta-data, applied methodology and results of marine ecosystem valuation studies (monetary as well as non-monetary).* Open databases will increase ecosystem services comparability and usability. The methodology could be checked for best practice and suitability and included in bio-economic models that can link (dynamic or static) natural science models with economic and social science models;
- *Enhance trans-disciplinary connections by incorporating fundamental marine science, social science, economic and public health approaches.* Ecosystem valuation studies require fundamental marine science, understanding of the social context and interpretation of the outcomes (who will benefit or bear the costs, what trade-off should be made between which ecosystem services, etc.) and of the potential health benefits (and cost);

- *Set the right scale and boundaries.* Ecosystem services beneficiaries might lay outside administrative boundaries, so local, regional and international cooperation is necessary to make a robust assessment in the trade-off analysis; and
- *Develop the Natural Capital Approach and Natural Capital Accounting.* Natural Capital Accounting should be included in assessment methods and financing mechanisms developed (e.g. payments for ecosystem services) to improve the sustainable use of marine natural capital.

EMB Future Science Brief No. 5 “Austen M., Andersen P., Armstrong C., Döring R., Hynes S., Levrel H., Oinonen S., Ressurreição A. (2019) Valuing Marine Ecosystems - Taking into account the value of ecosystem benefits in the Blue Economy.”
<http://www.marineboard.eu/publications/valuing-marine-ecosystem-services-%E2%80%93-taking-account-value-ecosystem-benefits-blue>