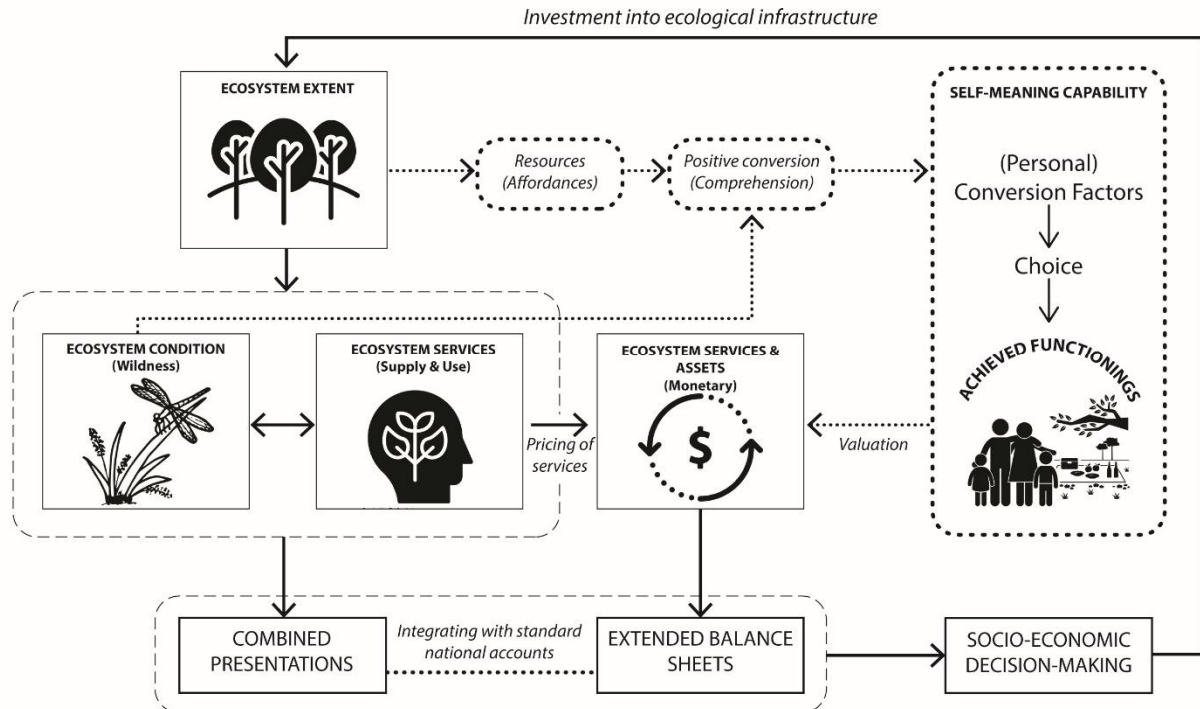


Supplementary Material



Conceptual diagram for integrating wildness and the self-meaning capability into Experimental Ecosystem Accounts (EEA) (adapted from UN, 2019). Rectangles represent EEA accounts and processes; square rectangles represent the system of national accounts and economic decision-making processes; and dotted-line rectangles represent capabilities. Ecosystem assets are mapped according to the relevant policy question (such as optimising public health benefits through a network of urban green spaces; increasing pollination services from ecological corridors within agricultural landscapes; or understanding potential ecotourism value from protected area networks at national scales). Wildness – the degree to which ecosystems function autonomously – can be integrated into the ecosystem condition accounts through methods such as the biodiversity intactness index (Scholes and Biggs, 2005) and other indicators that measure ecological complexity. The size of the remaining ecosystems (extent accounts) and their relative wildness (condition accounts) within a particular landscape will influence overall capacity to deliver ecosystem services. Under the self-meaning capability pathway, such services include reduced anxiety and depression, improved cognitive capacities and physical health (*sensu* Bratman et al. 2019). Ecosystem assets can be integrated into standard national accounts through both combined presentations

(which do not require monetary evaluation) and extended balance sheets (which incorporate the monetary costs of using ecosystem capital) (UN, 2019). Integrating the self-meaning capability into the EEA emphasises that it is not simply the final ecosystem services that are important for freedom: the ecosystems and their wildness levels are important independently in generating the affordances for purpose (resources) and dynamic change for comprehension (positive conversation factor) that help manifest an individual's realised freedoms (functionings). Achieved functionings then feed back into identifying what ecosystem services are relevant and how they are valued in society. Capabilities thus help to explicitly define the ultimate goal of natural capital accounting as sustaining intergenerational and existential freedom rather than passively reflecting and responding to systems of linear growth. By expanding the ecological infrastructure available to enhance our self-meaning capability, individuals may become more connected to nature and shift towards prosocial and pro-environmental functionings that increase the willingness to pay for ecosystem services and conservation. This may prompt greater investment into restoration and conservation by decision-makers in a virtuous cycle. (All vector images downloaded from the Noun Project <https://thenounproject.com/>)

Literature cited

- Bratman, G.N., Anderson, C.B., Berman, M.G., Cochran, B., Vries, S. de, Flanders, J., Folke, C., Frumkin, H., Gross, J.J., Hartig, T., Kahn, P.H., Kuo, M., Lawler, J.J., Levin, P.S., Lindahl, T., Meyer-Lindenberg, A., Mitchell, R., Ouyang, Z., Roe, J., Scarlett, L., Smith, J.R., Bosch, M. van den, Wheeler, B.W., White, M.P., Zheng, H., Daily, G.C., 2019. Nature and mental health: An ecosystem service perspective. *Science Advances* 5, eaax0903. <https://doi.org/10.1126/sciadv.aax0903>
- Scholes, R.J., Biggs, R., 2005. A biodiversity intactness index. *Nature* 434, 45–49. <https://doi.org/10.1038/nature03289>
- UN, 2019. Technical Recommendations in support of the SEEA Experimental Ecosystem Accounting (No. Series M No. 97), Studies in Methods. United Nations Statistical Division, New York.