Comment: "Accounting for Environmental Activity: Measuring Public Environmental Expenditures and the Environmental Goods and Services Sector in the US"

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Wentland et al. 2024 constructs a pilot environmental goods and service sector (EGSS) account for 2015 and 2019. Along the way, the authors carefully identify various conceptual and measurement challenges associated with constructing the account for the United States. I provide some background on how the study fits into the *National Strategy to Develop Statistics for Environmental-Economic Decisions* (hereafter *National Strategy*) (EOP, 2023) that is discussed in the introduction to this volume. Further, I identify some potential uses of the EGSS account and conclude with a simple caution about the interpretation of the size of the sector.

The study represents an early effort to begin to fulfill Recommendation 3(a) of the *National Strategy* to "[i]ncorporate the internationally-agreed System of Environmental Economic Accounts [SEEA] to guide development of U.S. natural capital accounts and environmental-economic statistics..." Research supporting this strategy is an important budget priority (EOP, 2023). Specifically, the paper and the pilot EGSS follows the intention "...to adopt the concepts, definitions, and classifications recommended in the SEEA CF [Central Framework] and EA [Ecosystem Accounting], with exceptions for improvements and alternative interpretations for specific U.S. institutions and context."

The pilot EGSS account is informed by the SEEA-CF and applies Classification of Environmental Protection Activities (CEPA) and Classification of Resource Management Activities (CReMA) aggregations that are used by the European Union Statistical Agencies to identify activities within the sector. The pilot EGSS measures gross output across private and public sectors, and therefore reflects a mix of final goods, intermediates, and government expenditures. The pilot account is constructed from supply-use data compiled by the BEA that is supplemented by additional data sources. These data sources are used to parse broader sector output levels to identify the portion suitable for inclusion in the EGSS.

The value of an EGSS account goes beyond an annual compiling of the bottom-line estimate of the size of the sector that may be of interest to policy makers. Having a U.S. account of the size and composition of the EGSS that generally aligns with the approach in other countries also allows for comparisons to other countries. Furthermore, as familiarity with an EGSS account increases, including how its size and composition have changed over time and learning more about its internal relationships, market models can be leveraged to understand how policies directly impacting one set of activities in the sector influence the others. For example, partial equilibrium and economy-wide models can be used to evaluate how policies to increase renewable energy may affect air pollution control activities in both the power and industrial sectors, the amount of investment in energy-efficient equipment, and the cost of providing environmental management (e.g., wastewater management). Furthermore, these market simulation tools and econometric studies can be used to evaluate how government investments in these activities influence private investment in this sector (Boushey, 2023).

¹ The views expressed herein are the author's and do not necessarily represent those of the USEPA. This comment was informed by helpful discussions with the organizers, authors, Wade Davis, Andrew Schreiber, and especially Carl Pasurka.

The existence of such an account also highlights the possibilities for deeper exploration of the sector including the value of complementary data collections (e.g., Becker and Shadbegian, 2009; Nestor and Pasurka, 1995a). Pairing components of the EGSS and complementarity data collections can improve our understanding of the relationship between the sector, as well as other sectors that provide inputs that support environmental activities, and sectors that consume their output, opening up additional research questions (e.g. Nestor and Pasurka, 1995b). Components of the EGSS may also be used to evaluate more complete measures of productivity that directly or indirectly account for changes in environmental quality – e.g. changes in expenditures in subsectors relative to changes in emission. It is up to decision makers to weigh the benefits and costs of developing and maintaining such accounts – but there clearly is significant value in understanding the scale activities that contribute to a broader perspective on the quality of life (Diamond, 2023; Department of Finance Canada, 2021).²

Finally, it is important to acknowledge what the EGSS is *not* measuring. It neither measures the total cost of environmental protection, nor the environmental benefit from the activities included in the EGSS. For example, the activities included may produce multiple services (e.g., output of renewable generators) and therefore does not measure the cost of protection as the authors discuss, particularly in the concluding section. That a measure of expenditures to provide public goods is not a measure of the social benefit of those expenditures, even on the margin, is self-evident. Fortunately, other ongoing studies are attempting to estimate the benefits of environmental quality and the value of natural resources, including research by some of the authors, to support the recommendations of the *National Strategy*. And that all said, the EGSS helps fulfill the need to grasp the scale of the activities and investments that protect and support natural capital, the quality of which fundamentally influences our well-being (Krutilla, 1967).

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² Additional policy uses, and associated research questions, of an EGSS account and similar efforts to understand this sector are identified in Eurostat (2009, p. 24) and Pasurka and Steurer (1995 p.6).

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