Accounting for Environmental Activity: Measuring Public Environmental Expenditures and the Environmental Goods and Services Sector in the U.S.

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Proposal – Extended Abstract

During the 20th century national income accounting had largely focused on measuring traditional economic activity, like consumption or investment as part of Gross Domestic Product (GDP), or disaggregating output by industry or region. More recently, 21st century environmental challenges and policy demands have spurred a rapidly expanding interest in environmental-economic accounts, including functional accounts that quantify transactions in the economy that are undertaken to protect, rehabilitate, or preserve the environment. This research develops new, proof-of-concept environmental activity accounts for both the public and private sector of the United States based on accounting principles and methods outlined in the SEEA Central Framework (SEEA-CF). Specifically, these accounts quantify and value "economic activities whose primary purpose is to reduce or eliminate pressures on the environment or to make more efficient use of natural resources" (SEEA-CF, §1.30). Countries around the world currently produce these types of accounts for a variety of uses, including to quantify national expenditures on environmental public goods specifically.

Given that output from the public sector is generally measured differently (SEEA-CF, §4.36), we follow the SEEA-CF by separating non-market (government) producers from the private sector into two sets of accounts. We first investigate the extent to which an environmental expenditure account for the public sector can be populated based on existing data. Though preliminary, the resulting tables we construct shed new light on the value of aggregate expenditures on environmental public goods in the United States by providing historical estimates extending back two decades. Second, we examine the feasibility of an environmental activity account for the private sector by constructing a proof-of-concept environmental goods and services sector (EGSS) account. We then discuss how a preliminary EGSS account can provide new insights into the supply and use of products for environmental protection or resource management in the U.S. economy. Because these accounts have not yet been attempted by a U.S. statistical agency, we also describe both methodological and practical challenges with fully implementing new accounts like these in the U.S., including documenting existing data gaps. We contribute to the literature by advancing new ways to deal with several key measurement and valuation issues, while also cataloging issues that would need to be remedied prior to being produced as a formal statistical product of the national accounts.

Keywords: environmental activity accounts, environmental public goods, environmental protection expenditures, environmental-economic accounting, national economic accounts

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