Measuring Natural Capital in Practice for Sustainable and Socially Inclusive Growth

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Implementing the SDGs calls for a holistic understanding of the interactions between socio-economic activities and the environment, and hence requires the systematic integration of environmental and related data into mainstream socio-economic policymaking, in particular through the development of new accounting methods such as natural capital accounting (NCA). For developing countries especially the task is as daunting as the need is urgent. There is already a rich literature on the nature and conception of such methods, and several initiatives have been launched. However, little work has been done so far to better understand the political economy of actually introducing these new methods. We propose here to analyze practical impediments to the implementation of NCA and to understand, through a proof-of-concept case study conducted in Madagascar, how an action research program to experiment NCA using geocoded natural wealth data can provide practical means to facilitate the introduction of these accounts to inform policies toward a sustainable and socially inclusive growth. The paper starts with a discussion on the main barriers to the implementation of NCA. The ongoing research agenda on NCA does not provide recipes but signals scientific and policy uncertainty about interpretations and outcomes, and consequently generates reluctance to engage into NCA from some policy circles. Second, environmental data are most of the time disparate: they are discipline specific without interlinkages, scattered in different institutional repositories, and rarely presented in reference to socio-economic activities. In this context, the urgency, for developing country, to shape a sustainable and inclusive development path has led to several global initiatives proposing support in building natural capital accounts. However, the multiplicity of approaches can create some confusion for their respective governments and may leave little space for an approach that has a practical and immediate application while allowing for self-experimentation and ownership to address local realities. Furthermore, policy-makers are usually involved but the local research community can be left aside which contributes to incomplete ownership and may affect the sustainability of building and using the new accounts.

Based on these observations, the paper describes how an action research program can allow practical implementation and complement existing initiatives. The aim of this program is both to advance the research agenda on ecosystem services and their valuation and to implement ecosystem natural capital accounts in a cost effective way, through a structured organization of environmental data in reference to economic activities. The first feature of such a project is to collate existing data, especially through the utilization of GIS coupled with in situ observations and data stored in the different institutions. The paper then explains how experimentation, with the mobilization of the local research community and policy-makers, and through the data collection process and its multi-disciplinary aspect, can holistically enable the creation of a new knowledge-to-policy pathway. This experimentation process, because it provides
evidence on the interactions between socio-economic processes and the environment, generates a dialogue between the different local stakeholders to assess the sustainability and the inclusiveness of the growth path.

Moving forward, we propose to investigate the factors that can facilitate expanding the program nationally and internationally. More specifically, such accounts could then evolve into an integrated and reliable source of information across scales and different levels of governance and, beyond the SDGs, can facilitate the implementation of international conventions such as the ones on climate, biodiversity or desertification. This approach can help build a global corpus of evidence on the interactions between the socio-economic activities and the environment and facilitate a comparison of the policies in place to achieve sustainable and inclusive economic growth.