Consequences of EU Environmental Policies for Ecosystem Service Provision Elsewhere

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ABSTRACT

The European Union is strongly committed to preserving Europe's ecosystems and biodiversity and has concentrated efforts into developing strong environmental policies. For instance, the new EU biodiversity strategy sets ambitious targets towards halting the loss of biodiversity and ethe degradation of ecosystem services in Europe by the year 2020. Moreover, the strategy commits to working towards averting global biodiversity loss. Despite of its good intentions, by implementing environmental and other policies that explicitly or implicitly relate to the concepts of ecosystem services and natural capital, the EU could be causing substantial impacts on biodiversity and the provision of ESS outside of Europe. As a part of the EU OpenNESS project (Operationalization of Natural Capital and Ecosystem Services), PBL works towards understanding the effects of European Union policy frameworks on a global scale. For that reason, a methodology for assessing the impact of EU policies on ecosystem services outside of Europe was developed, based on the IMAGE framework and GLOBIO model of PBL. The provision of a diverse set of ecosystem services in different regions outside Europe was evaluated based on assessments of ecosystem service supply and demand. As an example, the methodology was applied to assess the impact of the 2020 targets of the EU Renewable Energy Directive (RED) on ecosystem service provision in Africa and South America. The preliminary results reveal that the increased demand for biofuel import for outside of Europe, following the 10% target of RED, could have considerable negative impact on the provision of each of the assessed ecosystem services (food & water provision, climate regulation and erosion protection) in the regions assessed. The methodology will contribute towards the objectives of OpenNESS, as a tool for operationalizing the concept of ecosystem services to support the development and evaluation of EU policies and practices.

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