The effectiveness of biodiversity aid

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Abstract

Biodiversity is an environmental good that helps regulate water or nutrient cycle and mitigates negative impacts of climate change but it is lost at alarming rates. It therefore plays a vital role in achieving human development as well as securing food security all over the globe, but provisioning food for a growing world population is one of the main threats to biodiversity.

International efforts to conserve biodiversity in developing countries are still mainly financed through Official Development Assistance. The connection between development and biodiversity is reflected in the objectives of biodiversity-related aid activities: Four out of ten projects target biodiversity as the principal objective and would not have been funded but for that objective. The majority, however, targets biodiversity as a significant objective and have other prime objectives. Total bilateral biodiversity-related aid commitments by members of the OECD's Development Assistance Committee (DAC) increased over the past decade, reaching USD 6.1 billion per year on average in 2010-12.

How effective are these significant financial amounts in conserving biodiversity? To the best of our knowledge, this paper is the first attempt to assess the effectiveness of biodiversity aid. We use numbers of threatened species, forest area and terrestrial protected areas each at the country level, as alternative dependent variables for biodiversity. The existing data to measure biodiversity is rather scarce, with most information available at a global resolution, single points in time, or for specific project or countries only. As our main explanatory variable, we use OECD-DAC data on biodiversity-related aid commitments from 26 donor countries, including EU institutions, to 156 recipient countries for the period 2002–2012. We also control for GDP growth, population growth, export growth, importance of agricultural sector for the economy, membership in the Convention on Biological Diversity, the primary objective of the biodiversity aid activity, quality of the institutional environment, as well as aid for infrastructure, mining and agricultural development. The results from the quantitative empirical analysis will be placed in the context of measuring biodiversity and the trend to mainstream biodiversity aid in foreign aid.

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