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Paying for clean water and wastewater treatment: an analysis of urban water charging and its contribution to green growth

Derek Eaton (Centre for International Environmental Studies)

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Abstract submitted to the Third Annual Conference of the Green Growth Knowledge Platform "Fiscal Policies and the Green Economy Transition"

Derek Eaton
Centre for International Environmental Studies
Graduate Institute, Geneva

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This paper is motivated by the need for enhanced understanding of the role that fiscal instruments can play in promoting more efficient and sustainable water management in developing countries and emerging economies, with due attention to the possible risks of adverse effects on access for low income groups. The paper asks what patterns are emerging across a wide range of countries in the use of water charges as economic/fiscal instruments. The paper begins with a brief overview of the sparse and disparate economic literature on water tariffs. The paper then explores a relatively new dataset, the Global Water Intelligence water tariff survey, covering water charges by almost 350 local and regional authorities or companies among developed and developing countries, from 2007 through 2013. The focus is on urban water supply and wastewater treatment. Econometric analysis assesses the relationship between both the level and structure (i.e. linear, decreasing, increasing, threshold amounts) of water tariffs and their governance structure (public, private, PPP) on the one hand, and on the other, the level of economic development, such as per capita GDP, industrial and service sector development, national fiscal policy and poverty rates, as well as available indicators of water scarcity and use. The analysis attempts to identify regularities and common trends in the data, particularly within developing countries where the use of water charges is expanding. A possible extension to the paper will integrate household-level data, particularly from the World Bank's Living Standards Measurement Surveys for relevant countries to analyze the relationship between water charges and household expenditures, health outcomes, etc.