

Abstract

Existing international environmental institutions curb fossil fuels by paying countries to reduce demand and expand substitutes. This paper argues that it would be beneficial to create a new and separate institution that would pay countries to reduce their fossil fuel supply. In a model with endogenous funding I compare two architectures. In the first, these institutions would be separate so that donors could flexibly earmark their donations. Under a second architecture, there would be a unified institution with the mandate to split whatever funding it receives between the different approaches in the globally optimal way, treating the budget as if it was exogenous. The separated architecture always results in at least as much global welfare as the unified architecture. This is because it incentivizes fossil fuel exporters (importers) to donate to the institution paying countries to reduce fossil fuel supply (demand) since this raises (lowers) world market prices of fossil fuels. Using estimates of elasticities and the social cost of carbon and imposing several symmetry assumptions I find that emissions abatement is 1.32 times higher under the separated than under the unified architecture for the case of coal and 9.57 times for the case of oil.