Pareto-improving untied aid with environmental externalities[*]

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Abstract

It is often argued that foreign aid may be a possible solution to global environmental problems. It provides funds for environmental preservation in the recipient country, and the consequent cleaner environment benefits the donor country. Based on this idea, several authors have found that *tying* aid to environmental clean-up is Pareto-improving. Formulating a two-good transfer model with pollution in only the recipient country (i.e., no transboundary pollution), Chao and Yu (1999) showed that a positive tying ratio is necessary for mutual gains. Incorporating consumption externalities into a one-good model of private provision of public goods, Ono (1998) demonstrated that both countries gain from aid if it induces the originally non-contributing recipient to contribute to the environmental clean-up.

Constructing a two-good transfer model with transboundary pollution, this paper shows that foreign aid may be Pareto-improving even if the aid is *untied*. The driving force is the change in the terms of trade caused by the international difference in the marginal propensities to consume the good whose production generates pollution. When the marginal propensity to consume the polluting good in the donor country is larger than that in the recipient country, an additional amount of aid decreases the world excess demand for the polluting good, which in turn reduces its price. Then production of the polluting good decreases in both countries, so that the global environment improves. If this environmental effect outweighs the usual transfer effect, both countries gain from the untied aid.