Payments to the Rural Poor for the Sake of Watershed Conservation in Ecuador

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BACKGROUND

Mounting water scarcity in Quito.

Under study: Proyecto de Ríos Orientales (inter-basin water transfer), costing more than $1 billion.

Alternative: Efficient development of water resources within drainage basin.

THE CHALLENGE OF WATERSHED MANAGEMENT

Farming practices and other NR uses need to change at higher elevations, which are populated mainly by rural people who:

- frequently suffer income shocks (due to adverse climate, for example) and
- have limited options for dealing with these shocks (through borrowing, working outside agriculture, etc.).

IMPLICATIONS OF UNCHUSHIONED SHOCKS

“Hedging value” of access to land (used for subsistence farming, especially when earnings are low) is substantial.

The compensation that the rural poor will accept in exchange for surrendering NR access (the crux of payments of watershed services) includes this hedging value, and thus greatly exceeds the average net returns of agricultural land use.

EMPIRICAL STUDY

Survey in early 2004 of more than 200 rural households in Cangahua and Oyacachi – two communities in Quito's upper watershed.

Half the sample was asked contingent valuation (CV) question about willingness-to-pay (WTP) for cleaner and more reliable supplies of drinking water (Dale Whittington, UNC).

Other half was asked CV question about willingness-to-accept (WTA) compensation for agreeing to change agricultural practices.

FINDINGS

Average household's WTP for water > $2/m.

Average household's WTA for land-use change > average net returns of farming.

That is, hedging value associated with income shocks and economic marginalization of rural poor (as exemplified by limited participation in financial and labor markets) is substantial.

POLICY IMPLICATIONS

Inducing the rural poor to reduce their uses of fragile environments – as CI's Richard Rice advocates for tropical forests – will cost more than the average net returns of these resources uses.

The difference between the minimum payments they will accept and those average net returns depends directly on their economic marginalization.