LETTER

Sustainability, autonomy, and benefits from forest commons

Chhatre and Agrawal's article (1) is an important contribution to the Commons literature, with large policy implications. They conclude that the dual benefits of carbon storage (CS) and livelihood support (LI) from forest commons occur simultaneously if the forest size is large and there is local autonomy in decision making. These claims are well intentioned but debatable on three counts: definitions used, choice of variables, and sample selection.

Sustainable forest use in the authors' study (1) occurs when both CS and LI are high. Is this a dynamic equilibrium outcome whereby stocks and flows from these forests have been stabilized? Chhatre and Agrawal (1) do not establish this. A high current LI may degenerate to a low CS in future, resulting in "unsustainable" or "overused" commons. Furthermore, they state that the livelihood variable is strongly correlated with poverty, which should not be a long-term desirable outcome. In the authors' study (1), the outcome with low LI (read poverty) and high CS is associated with community ownership and long distance to forest and administrative center.

The variable FCONSERVE (therefore *Rulematch*) may not represent "autonomy". First, FCONSERVE presumably records whether forest use is sustainable, not whether there is autonomy in rule making. Therefore, *Rulematch* (independent variable) and *LivCar1* (dependent variable) may not have a "cause and effect" relationship because both record "sustainable" use. Second, the choice of *Rulematch* to represent autonomy rests on the assumption that if forests are managed by local users then there is congruence between conservation rules and the state of the forest. We believe this is a relationship that should be examined rather than stated because it assumes that communities not only possess requisite knowledge but also have the ability to create and enforce sustainable use rules. The simultaneous occurrence of these requirements is not common (2, 3). The study (1) has only 14 cases of community ownership, half of which show the expected value for *Rulematch*; this may be too small a number from which to draw such strong conclusions.

They did not test (or control) for influence of the market on conservation. *Sadmin* and *Smarket* [recording distance from the nearest market in the International Forestry Resources and Institutions (IFRI) database] are strongly correlated. *Sadmin* in the regression in the authors' study (1) could be interpreted alternatively as measuring the impact of market forces rather than administrative control. Interestingly, *Sadmin* is not significant in either of the outcomes HH (high CS and high LI) or LL (low CS and low LI).

The range of forest size in the sample is very large (21–22,700 ha). If the contest is for allocation between current and future use, and between different land use types, the sample if not random [as in the authors' study (1)] should exclude the very large forests. Their inclusion may bias the regression results and cause forest size to seem significant.

We believe the points made by Chhatre and Agrawal could have been made in a more persuasive way and that the larger IFRI database provides opportunity for this. Unfortunately, alternative regression specifications could not be attempted on the original IFRI data because of difficulties in identifying the forests selected in their study (1).

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