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Policy Forum

What Role for Short-Lived Climate Pollutants in Mitigation Policy?

J. K. Shoemaker, D. P. Schrag, M. J. Molina, V. Ramanathan | 6 Comments

Philip Fearnside

Shoemaker et al. (1) raise the important issue of comparing benefits of reducing emissions of "short-lived" black carbon (BC) and methane (CH_4) with "long-lived" carbon dioxide (CO_2). They believe trading between CO_2 and CH_4 "should be discouraged" and compare three scenarios: one reducing CO_2 emissions through 2050 by 20%, a second reducing BC by 80% and CH_4 by 40%, and a third reducing all three pollutants by the same percentages. Obviously, the third scenario results in the greatest mitigation. However, the scenarios are not normalized by the cost of achieving the specified reductions, and the third (recommended) scenario presumably costs as much as the other two combined. The most efficient way to distribute funds among options is to have them compete with each other through a market mechanism, rather than a central authority setting targets for each gas or mitigation type, much as production targets were decreed in the former Soviet economy. While markets can be tweaked and channeled to maximize non-climate benefits (and avoid perverse impacts), exchangeability is essential. CH_4 emissions from tropical dams add to controversies over carbon credit for hydropower (2-4). Reducing methane emission has rapid benefits for slowing temperature increase (essential to avoid surpassing the 2°C threshold now agreed as "dangerous"). The weight giving to methane must reflect the importance for human society of this key role (5, 6). PHILIP M. FEARNSIDE National Institute for Research in Amazonia (INPA), Manaus, Amazonas, Brazil. E-mail: pmfearn@inpa.gov.br

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