LETTERS

Best cost estimate of greenhouse gases

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In March, President Trump's Executive Order 13783 disbanded the Interagency Working Group on the Social Cost of Greenhouse Gases (IWG) (*1*). IWG developed estimates for federal agencies to use in cost-benefit analyses of climate policies. IWG's most recent central estimate was $50 in global damages per ton of carbon dioxide, based on year 2020 emissions, converted from 2007 to 2017 dollars (*2*). Trump's Executive Order withdrew IWG's official valuations and instead instructed agencies to monetize climate effects using "the best available science and economics" (*1*). Yet IWG's estimates already are the product of the most widely peer-reviewed models and best available data (*3*).

The Executive Order asks agencies to reconsider "appropriate discount rates" (the factor for converting future costs and benefits into present-day values) and "domestic versus international impacts" (*1*). These instructions implicitly question IWG's choices to base central estimates on a 3% instead of a 7% discount rate (higher discount rates place less value on avoiding future damages) and to value global damages rather than ignore climate effects beyond U.S. borders. However, scientists and economists widely endorse these methodological choices. The National Academies of Sciences and the U.S. Council of Economic Advisers (*4*, *5*) strongly support a 3% or lower discount rate for intergenerational effects. A 7% rate based on private capital returns is considered inappropriate because the risk profiles of climate effects differ from private investments (*6*, *7*). Most economists and climate policy experts [though not all (*8*)] also defend valuing the full global externalities of U.S. emissions to reinforce reciprocal climate policies in other countries (*3*, *4*, *9*). Moreover, current models cannot accurately estimate a domestic-only share of the social cost of greenhouse gases (*4*, *9*).

The social cost of greenhouse gases should be regularly updated, especially to reflect the latest evidence about damage functions (*10*). Meanwhile, government and private sector analysts should continue using IWG's central estimate of $50 per ton of carbon dioxide with confidence that it is still the best estimate of the social cost of greenhouse gases.

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