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"For the traditional energy sector, mitigation potential is small, the social co-benefits are potentially huge, but the methodological issues are seriously complex if not intractable. That's where I'd like to see the evaluation community step up."

At the International Conference on Evaluating Climate Change and Development, Rob Bailis presented his research on evaluating climate change mitigation and development benefits in the traditional energy sector. He also highlighted some gaps specifically for the attention of the evaluation community.

Worldwide, billions of people rely primarily on natural resources, such as wood, to fuel everyday necessities such as cooking and heating. Negative impacts are often associated with traditional methods of fuel burning; for example, health risks are associated with burning wood inside homes using rudimentary stoves. The traditional energy sector also contributes to global emissions — from the combustion process itself as well as from land-use conversion, which involves the removal of plant cover that would otherwise absorb carbon dioxide.

According to Bailis, the Intergovernmental Panel on Climate Change has estimated that 10% of the wood fuel harvest used in the traditional energy sector is non-renewable. If this is the case, then this sector causes 20% of global emissions due to deforestation and emits 1.5–2% of global greenhouse gases, an amount equal to the emissions from transportation in the whole of the European Union (www.esdevaluation.org/images/Mitigation_-_Bailis.ppt). Clearly, ample opportunity exists for climate change mitigation work within this sector, which also, according to Bailis, possesses some of the highest potential sustainable development benefits, including health, socioeconomic, and environmental benefits.

With attention from the international development community, polluting fuel-burning practices are slowly being replaced by higher efficiency and less-polluting alternatives, and the sustainability issues of non-renewable natural resources are also being tackled. This fits in perfectly with Bailis' work, which looks at the social and environmental consequences of energy resource exploitation in developing countries and also

vulnerability and adaptation to environmental change. From a climate change perspective, he looks at how interventions aiming to change the way in which people use their natural resource base for fuel help reduce greenhouse gases. However, he finds that there is still a lot to be done, especially in terms of measuring impact.

Within the traditional energy sector, the process of monitoring and evaluation is typically two-pronged, involving a laboratory component to measure equipment performance (for further reading see ceihd.berkeley.edu/heh.mande.htm) and a social component which measures the benefits associated with improved equipment or the reversal of land conversion. The latter is much harder to measure, and that's why, according to Bailis, the social benefits of climate change mitigation projects are largely assumed rather than measured. Bailis believes that this aspect of evaluation needs a lot more work if it is to yield useful results and that there must be a focus on creating multi-criteria assessment methods that are consistent, replicable across the board, and participatory in nature.

This point echoes what Robert van den Berg, head of the Global Environment Facility's Independent Monitoring and Evaluation Unit, had to say in his closing remarks at the conference. He said that the evaluation community needs to capitalize on best practices and develop this into internationally accepted frameworks and guidelines to address current gaps in the evaluation process. One of these gaps is measuring the impact of climate change projects from a sustainable development perspective.

It seems clear that researchers and evaluators are working toward a similar goal, which is why Bailis finds the distinction between researcher and evaluator somewhat vague. A generally accepted distinction would be that research generalizes, whereas evaluation particularizes. However, when it comes to climate change, it seems that the distinction is largely academic. Both communities are faced with the same challenging task of usefully evaluating the effectiveness of interventions to combat rising greenhouse gas emissions, and both will have to work together to rise to it.

When asked about the benefits of attending the conference, Bailis offers, "Feedback from the evaluation community on the project would be great to complement the research approach." This confirms that in the fight against climate change, two heads will always be better than one.