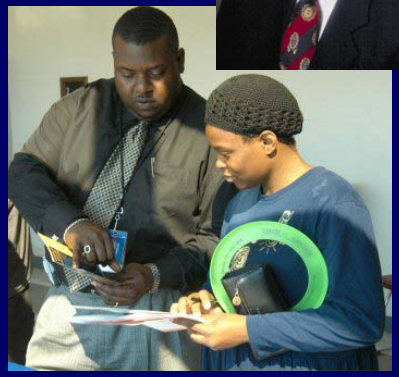
Motivation

- Carbon programs explicitly seeks scientific understanding to "...meet societal concerns and to provide tools to policy makers" (Wofsy and Harriss, 2002); and to provide "decision support" (Denning et al. 2005)
- Providing useful knowledge is not a given
- Emerging programs offer a fertile test-bed and opportunity
- To be successful at providing useful information to decision-makers requires research and a deliberate approach

Potential Carbon Decision Makers



A wide array of potential users at a variety of scales:

- Land users (agriculture, forestry, urban development)
- Energy providers (utilities, fuel producers)
- Policy makers (local, state, federal)
- Specialized sectors (carbon traders, NGOs)

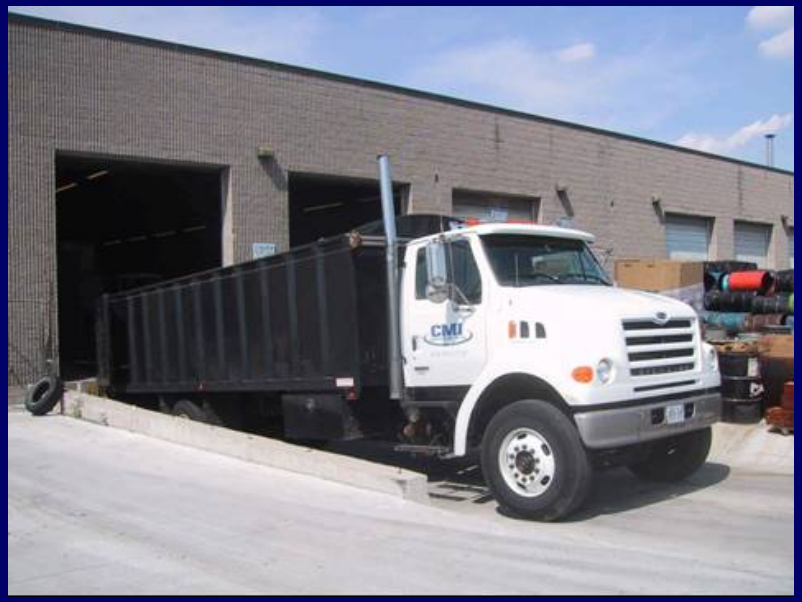
What does it take for science to be used in decision making?

- Relevant to a decision context/Makes a difference to the outcome
- There are viable options for the particular decision that are sensitive to the information
- Compatible with existing values, norms and practices
- Accessible
- Credible
- Trustworthy
- Reliable/accurate/appropriate scale and timing

So what does this imply for the process used to create science useful for decision making?

Avoid the “loading dock” approach!!

Cash et al. 2006



Results from "Usable" Carbon Science Workshop

- Start with a "problem-centric" or stakeholder perspective to orient around as research is planned.
- Build in a dynamic, two-way relationship that is ongoing between knowledge producers and societal decision makers, or pursue fully-integrated co-production of knowledge.
- Allow for community creativity in seeking out projects that might provide good pilots for creating usable carbon science.
- Through appropriate metrics and evaluation procedures, ensure that accountability to the goals of usable science is met. Such governance and metrics may be different than the traditional ones usually relevant for basic research.
- Models exist that can be evaluated for their applicability for organizing a usable carbon science effort. Such models include dedicated institutions, regional integrated sciences and assessment projects, boundary organizations, and grant programs.
- Consider how successful usable carbon science efforts might transition to an ongoing, operational status. Do such organizations exist now for carbon? If not, can the function be incorporated into existing organizations?