

airline bunker fuels are one area, however, where there appears to be a real need to co-ordinate internationally.

5. The net approach: The Framework Convention on Climate Change (FCCC) calls on Parties to "limit its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs." The requirement of Parties to protect forests and control land use changes has been interpreted to mean that governments can DEDUCT any improvement in the capacity of forests and land to store carbon from fossil fuel EMISSION. Such an approach is completely unacceptable from an environmental point of view and dangerous for Canada from an emissions point of view. It is extremely difficult to calculate with any degree of certainty actual reductions achieved from carbon sequestration projects. In addition, these reductions, if achieved, are only temporary as any carbon stored will be released when forests die. Finally, scientific assessments of the impacts of climate change show that Canada's boreal forest is at risk of potential losses of up to two-thirds from forest fires and pest outbreaks. Should Canada continue to support the net approach it could face a situation where its managed forests become a significant and long-term source of carbon to the atmosphere with the result that Canada's inventory (and reductions requirements) increase rather than decrease.

6. Coverage: Canada has Long been a proponent of including all sources and sinks of greenhouse gas emissions in the Convention. There are two concerns; (1) the sources included in any protocol, and (2) the treatment of all gases as one basket where global warming potentials can be used to trade gases off against each other.

Sources: not all sources of greenhouse gas emissions can be measured with high levels of certainty; a critical point when dealing with a legally binding target. Methane for example, can be more accurately measured from oil and gas operations than it can from rice paddies. Carbon dioxide emission, particularly from energy source, can be accurately measured which is why Japan supports a protocol that includes only carbon dioxide emissions. Sierra Club (and the Climate Action Network globally) believes that only those sources that can be accurately measured be included in any legally binding emissions reduction protocol. As methodologies for measuring emissions from various sources improves, then those sources would be added to the protocol.

Basket versus gas-by-gas approach: The Climate Action Network has long supported a gas-by-gas approach for the Convention. Targets should be set for individual gases (carbon dioxide, methane, nitrous oxide, perfluorocarbons, hydrofluorocarbons) and be based on sources that can be accurately monitored and verified. The scientific community has developed the concept of Global Warming Potentials to identify the relative contribution to radiative forcing, from the various greenhouse gases. There are large uncertainties associated with these global warming potentials. Current values for GWPs will continue to be adjusted by the scientific community. Current proposals, however, could see today's values locked into commitments for 15 years or more. Changes to GWPs could mean that emissions reductions for gases other than carbon dioxide result in lower reductions than originally anticipated. Such an outcome supports the argument for short-term reduction commitments with budget periods of no more than 3 years, with targets set on a gas-by-gas basis.

In addition, governments like Canada are using global warming potentials to "add" the impact of emissions reductions by various gases and are reporting emissions on a CO₂-equivalent basis (carbon dioxide equals one; methane 24.5, nitrous oxide 320).