those projects that involve *point* sources (e.g., construction of a wind facility rather than a fossil fuel fired power plant). Area sources and sinks typically involve several flux pathways, such as soil carbon accumulation, biomass growth, and decay of wood products, all of which vary in space and time due to factors such as rainfall, soil type, and land management techniques. Therefore, estimates of net annual flux for such projects are usually quite uncertain, and accurate measurement of flux once a project begins, while not difficult, is often labor intensive, and therefore, may be relatively expensive.

Point sources typically involve only one or two sources that are either easy to measure or can be derived from data that are regularly collected. For example, if a wind facility is built instead of a diesel fired power plant, the baseline emissions would be derived from annual diesel fuel consumption, the carbon content of the fuel, and the fuel combustion efficiency. Fuel consumption can be derived from the expected annual output of power, the presumed efficiency of the diesel plant, and the heat content of the fuel that would have been consumed. The carbon content of the fuel (on an energy basis) and the fuel combustion efficiency are standard factors that are not highly variable and that can be taken from readily available references. In this example, the source (by definition) is not spatially variable, and the only temporal variability in emissions that occurs is due to variable fuel consumption. Once the project begins, the fuel consumption that would have occurred in the absence of the project can be easily estimated from the power output of the wind facility.

For these reasons, some countries, NGOs, and other groups have argued that land-use change and forestry activities should be excluded from measures that may be used to meet national emission reduction commitments. However, forestry projects, especially in developing countries, are often low cost (on a per unit of GHG reduction basis), and have attractive ancillary benefits, including biodiversity conservation, watershed protection, and revenue generation through the production of wood and non-wood products. Therefore, forestry projects can present attractive opportunities for investment - both for the host country and the entity that invests in the carbon credits. Moreover, excluding all forestry projects from the CDM might discourage certain developing countries from participating in CDM, and would eliminate a potential cost effective mechanism for reducing future global net GHG emissions.

Issue #5: How should measuring/monitoring protocols and verification/ certification procedures be Designed?

Issue: Paragraph 5 of Article 12 states that CDM projects must achieve "real, measurable, and long-term benefits related to the mitigation of climate change" and emission reductions "that are additional to any that would occur in the absence of the certified project activity." These two sentences address the issues of accuracy of the measured GHG benefits, permanence of the achieved GHG benefits, and additionality of the GHG benefits. Answers to questions about these issues will determine how measuring/monitoring protocols and verification/certification procedures should be designed. In particular, what levels of certainty are necessary for credible GHG reduction measurements? How rigorous should baseline development be, and what level of effort should be made to ensure consistency across sectors or subsectors within each country or region? What measures must be taken to insure against reversal and/or leakage of GHG benefits? Two options for the design of measuring/monitoring protocols and