DRAFT

Potential INC Consensus Points for Discussion September 14

(prepared 9-12-07 by T. Theis)

Current policies and practices for nitrogen are not sustainable.

There are critical research needs with respect tot reactive nitrogen that should be addressed (more effective application of nitrogen fertilizers, control of runoff and leachate, ammonia deposition rates, application of multimedia nitrogen models to sensitive regions).

Air and water quality regulations for nitrogen should be better integrated—national policy but emphasizing local impacts (e.g. NH3)

There is a need to routinely measure and report a new metric for nitrogen—Total Reactive Nitrogen (TRN).

Better monitoring for ammonia in air is needed. Ammonia as criteria pollutant?

Although the global budget for N_2O is fairly well known, there is a need to better quantify specific sources and natural variability (e.g. agricultural and wetland systems).

Many of the costs of our current nitrogen policies are external to the systems that generate reactive nitrogen (e.g. artificial fertilizer costs)

Management of reactive nitrogen involves the recognition of trade-offs (e.g. dietary needs vs the degradation of ecosystem services; generation of N_2O from denitrification vs emission of nitrate).

Policies for the management of nitrogen should focus on ways to identify benefits and costs, and to levelize costs. Reexamination of the role of agricultural subsidies, the imposition of “reactive nitrogen taxes”, and the development of market mechanisms (e.g. cap-and-trade) are all possible options.

The role of education requires greater definition (e.g. BMPs for intensive agriculture, feedlots; raising the level of awareness of the population on nitrogen impacts and dynamics).