

Nanjing Declaration on Nitrogen Management

Presented to the United Nations Environment Programme.

Nanjing, People's Republic of China, 16 October 2004.

Co-Chair
of the Conference



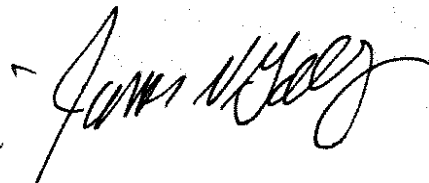
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NANJING DECLARATION ON NITROGEN MANAGEMENT

The participants of the Third International Nitrogen Conference, held in Nanjing, People's Republic of China, 12 – 16 October 2004

AFFIRM the principles of the Millennium Development Goals and the World Summit on Sustainable Development to speedily increase access to basic human needs such as energy, water, food security and the protection of human health and biodiversity.

AFFIRM the scientific findings of the International Nitrogen Conferences and the International Nitrogen Initiative (INI).

ACKNOWLEDGE that reactive nitrogen plays a vital role as a nutrient in the production of food, fiber, and other societal requirements for the growing population.

RECOGNIZE that, although anthropogenic production of reactive nitrogen exceeds natural creation in many regions of the world, other areas suffer from the opposite problem - a deficiency of reactive nitrogen in the soil, contributing to food insecurity and malnutrition. These areas include most of Africa and parts of South America and Asia.

RECOGNIZE that, although many people suffer from malnutrition, a growing proportion of the world's population consumes excess protein and calories, which may lead to human health problems. The associated production of these dietary proteins (especially animal products) leads to further disturbance of the nitrogen cycle.

ACKNOWLEDGE that reactive nitrogen is a by-product of fossil fuel combustion that contributes to the welfare of humanity by supplying electricity, transportation and energy.

NOTE WITH SERIOUS CONCERN that in many parts of the world, significant amounts of reactive nitrogen are lost to the environment in agricultural and industrial production and fossil fuel combustion. This has led to disturbances in the nitrogen cycle, and has increased the probability of nitrogen-induced problems such as pollution of freshwaters, terrestrial and coastal ecosystems, decreasing biodiversity and changing climate and pose a threat to human health.

ARE FURTHERMORE CONCERNED that, with the rapidly increasing world population, the disturbance of the nitrogen cycle will become worse unless adequate measures are taken.

AFFIRM that since the different forms of reactive nitrogen can be transformed into one another and are very mobile in the environment, an integrated approach to optimize nitrogen use whilst preventing nitrogen pollution, is necessary.

ARE KEENLY AWARE of the urgent need for international cooperation to decrease the disturbance of the nitrogen cycle.

ENCOURAGE countries to coordinate their research, exchange solutions, and work together with the International Nitrogen Initiative and its Regional Centers, including participating in the International Nitrogen Conferences as recurrent opportunities to discuss scientific progress and issues related to policy.

CALL UPON the United Nations Environment Programme, as the environmental conscience of the United Nations system, to promote understanding of the nitrogen cycle, assess consequences of its disturbance, provide policy advice and early warning information, and catalyze and promote international cooperation. This should be done in conjunction and close cooperation with: the Consultative Group on International Agricultural Research, the Food and Agriculture Organization, the World Health Organization and other appropriate United Nations organizations, stakeholders, the International Nitrogen Initiative and its Regional Centers, and other relevant organizations.

WELCOME the new International Assessment on Agricultural Science and Technology for Development and recommend that it should fully consider agricultural nitrogen issues.

Hereby declare their commitment to facilitate the optimization of nitrogen management in food and energy production, and environmental protection.

Call upon their national governments to optimize nitrogen management on a local, regional and global scale by:

- 1. Supporting further assessment of the nitrogen cycle, its benefits for humankind, and its consequences on human health and the environment.**
- 2. Focusing efforts on increasing the efficiency and effectiveness of agricultural production and energy use, while decreasing the adverse effects of reactive nitrogen.**
- 3. Promoting exchange of information and technology, raising public awareness, encouraging research and development of solutions to reactive nitrogen problems, and monitoring disturbances of the nitrogen cycle.**
- 4. Taking action to enhance availability to reactive nitrogen as food, fiber and other basic needs in regions of nitrogen deficiency and avoid nitrogen pollution. This can be done by continual development and promotion of:**
 - a) A code of good agricultural, forestry, and aquacultural practices, recognizing the needs for specific practices to be tailored to specific conditions and improving utilization of nitrogen in food production;**
 - b) Strategies for sustainable energy use to prevent the formation of nitrogen oxides in fossil fuel combustion, and**
 - c) Application of emission reduction technologies (e.g. wastewater treatment, selective catalytic reduction).**