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ПРОГРАММА ОРГАНИЗАЦИИ ОБЪЕДИНЕННЫХ НАЦИЙ ПО ОКРУЖАЮЩЕЙ СРЕДЕ

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PROSPECTUS FOR POLICY WORKSHOP ON NITROGEN

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Co-Chairs: Mrs. Monique Barbut (DTIE, UNEP, Paris, France) and
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The International Nitrogen Initiative (INI) was jointly launched by SCOPE and IGBP in 2003. The main impetus behind this was the concern expressed by many in the scientific community to the effects of nutrient overload on the environment. The issues of Nitrogen encompass more than nutrients. They cover a wide area including air pollution, greenhouse effect, and stratospheric ozone depletion, among others. These all require an integrated policy approach.

The Initiative was begun through a series of groundbreaking scientific exercises, most notably the organization of the International Nitrogen Conferences: three held thus far, one in the Netherlands – focusing on Europe; one in USA – focusing on North America; and one in China – focusing on Asia; the next one is scheduled to be held in Brazil to cover topics of priority interest for South America in 2007. The International Nitrogen Initiative (INI) is a collaborative effort by scholars around the world. INI has created regional nodes in Latin and North America, Africa, Asia and Europe. While its initial focus is in producing a preliminary scientific assessment (a draft of which was circulated at the Nanjing Conference in 2004), INI is deeply interested in appropriate policies to avert some of the projected impacts on human health, economy and the environment.

Intergovernmental entities such as UNEP and FAO, private sector groups led by the International Fertilizer Industry Association, governmental and nongovernmental organizations have all come together in identifying this as a priority area for action. Their involvement grew with decisions such as the report adopted by the UNEP Governing Council, meeting in Korea in 2004, that the issue demands more public attention and policy intervention. The Millennium Ecosystem Assessment, a separate and distinct initiative (although many of the players from the above entities actively participated in it), devoted significant attention to this topic both in its Conditions and Responses Working Group reports, and in its final summary. Some of the observations gleaned from these documents are quite revealing. They point out the following.

The impact of synthetic fertilizer use is not uniform over the planet and varies greatly from region to region. In many parts of Europe, Asia, and North America, nitrogen deposition from the atmosphere and nitrogen fluxes in rivers have increased tenfold or more since the introduction of synthetic fertilizer. On the other hand, some regions in North America, where population levels are low and where there is little agriculture, have seen little if any change in nutrient fluxes in the landscape. Some parts of the world, including much of Africa, suffer from too little fertilizer availability to support agriculture needs - a stark contrast to the nutrient surpluses that characterize the developed world and East and South Asia.

The consequences of excess nutrient flows are large and varied. Even a cursory look at the health effects reveals: asthma and respiratory distress due to ozone pollution, increased allergies and asthma due to increased pollen production, risk of blue-baby syndrome if nitrate levels in drinking water are sufficiently high, and increased risk of cancer and other chronic diseases from nitrate in drinking water and from production of fine particles in the atmosphere.

Manifestations of these problems vary regionally, from too much exposure to nitrogen in the soils, atmosphere, and waters in much of industrialized Europe and North America, to nutrient shortages hurting subsistence farmers of Africa. Both extremes are found in Latin America and Asia, with the largest growth in demand and use of commercial fertilizers in Asia.

What might one look for in an integrated policy approach? This can be addressed through uniform national approaches or a combination of watershed-based and industry specific approaches. It is vital that there be a comprehensive understanding of a nutrient management strategy that transcends geographical, economic and political boundaries. In parallel with the understanding of a management strategy, the existing data on nutrient mobilization, distribution, and effects need to be assessed to ensure that the science used to develop management strategies is sound and complete. A review of policies and measures adopted around the world presents a piecemeal approach. Regulation, largely a feature to be found in the industrialized countries, often omits large problem areas and scarcely manages to deal adequately with areas that are the primary target. If this is the situation in countries with well-developed laws and regulations, one can imagine the situation in countries where no conscious attempt has been made to deal with the policy issue.

The challenge is how to optimize the beneficial role of nitrogen in sustainable food production while minimizing the negative role on human health and the environment as a result of food and energy production. This requires a different approach than those used either in the industrialized or developing countries.

During the discussions of the INI Steering Committee held at the Woods Hole Research Center (May 2004), and at Nanjing, China during the 3rd Nitrogen Conference (October 2004), the Steering Committee reiterated the need to build bridges with the policy community by getting key policy people involved in the INI, as it develops its work plan in the future. Upon the request of the INI Steering Committee, Mrs. Monique Barbut (Director, DTIE, UNEP) and Dr. Kilaparti Ramakrishna (Director, Program on Science in Public Affairs, Woods Hole Research Center) have agreed to act as Co-Chairs of the 2006 Policy Workshop, to identify potential participants and host the workshop. Following upon the general conclusions of that meeting and further consultations with UNEP, the Policy Workshop is now scheduled to take place in Paris, France, January 22-24, 2006 under the joint auspices of the United Nations Environment Programme and the Woods Hole Research Center.

Participants will be drawn from key stakeholder groups, with a regional balance. These will include: *policy makers* that deal with this topic on a regular basis, whether they are working for governments or intergovernmental organizations; *scientific and business leaders* who can bring to the table the broad experience of lessons learned in our quest to attain sustainability and see ways of moving forward with this topic; *academics* specializing in the fields of law and economics with specific ideas on coping with global environmental problems in the context of a global economy and the increasing inter-dependence of nations.

The workshop will develop a preliminary assessment of potential actions and policies to minimize negative impacts of nitrogen overload, and redress shortages in those areas afflicted. The primary intent of this workshop is to initiate the interaction between the scientific and policy making communities, and start a policy-oriented discussion on what could and should be done to address the disrupted global nitrogen cycle. The report emanating from the workshop will be distributed amongst key stakeholders and placed on the websites of UNEP, WHRC, and INI.

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