Workshop on Nanotechnology, Water, and Development Agenda

Global Dialogue on Nanotechnology and the Poor: Opportunities and Risks
Workshop on Nanotechnology, Water, and Development | Draft Agenda
10 – 12 October 2006
M.S. Swaminathan Research Foundation | Chennai, India

Meeting Objectives

Develop recommendations and identify activities that will inform decisions and catalyze actions by stakeholders (e.g., water experts, development experts, governments, NGOs, companies, universities, international institutions, donors) involved with:

- Nanotechnology research and development efforts relevant to providing clean water in developing countries.
- Activities to address potential environmental, health, safety, socio-economic, and other issues related to the use of nanotechnology in water treatment devices.

In achieving these objectives participants will discuss a range of issues including, but not limited to, the following:

- What are the barriers to improving basic sanitation and access to clean water in developing countries?
- How can science, technology, and existing knowledge help address these challenges?
- What potential does nanotechnology present to help address these challenges?
- To the extent that nanotechnology presents opportunities, are there risks and other issues that need to be addressed?
- What can be done to catalyze and accelerate activities that address these opportunities and risks?

Tuesday, 10 October 2006

09:00 Welcome, Introductions, Meeting Objectives and Agenda Review
M.S. Swaminathan Research Foundation
International Development Research Centre
International Water Management Institute
The Energy and Resources Institute
Meridian Institute

Participants will be asked during introductions to briefly comment about their interest in water issues and nanotechnology, especially implications for developing countries.

10:30 Break

11:00 Presentation – Human Development Needs Regarding Clean Water and Sanitation, Opportunities and Risks of Nanotechnology Applications for Clean Water, and Case Studies[7]

Presented by the co-authors of a background paper on Nanotechnology, Water, and Development:

- Yvani Deraniyagala, Munasinghe Institute for Development, Sri Lanka
- Mbhuti Hlophe, University of North West, South Africa

11:45 Plenary Discussion – Key Development Priorities and Opportunities for Applying Nanotechnology to Provide Sanitation and Clean Water in Developing Countries

Building on the presentation and background papers, participants begin to:

- Clarify key development priorities for providing sanitation and clean water in developing countries and the challenges poor communities face in improving their access to sanitation and clean water (e.g., social, economic, political, cultural, technical).
- Examine the "water issue" from a holistic, systems perspective that includes, for example, the linkage between water and sanitation and between domestic wastewater and agricultural and industrial demand for water.
- Identify specific nanotechnology applications for clean water (i.e., technologies that are on the market and those in development).

Specific questions for discussion include, but are not limited to:

- What are the barriers to improving sanitation and access to clean water in developing countries?
- How can science, technology, and existing knowledge help address these challenges?
- What potential does nanotechnology present for addressing these challenges?

13:15 Lunch

[7] Case studies focus on projects designed to provide to clean water in developing countries using both nano and non-nanotechnologies.

14:30 Plenary Discussion – Potential Environmental, Health, Safety, Socio-Economic, and Other Issues Related to the Use of Nanotechnology to Provide Clean Water in Developing Countries

- Building on the presentation and background papers, participants begin to identify potential environmental, health, safety, socio-economic, and other issues (e.g., intellectual property rights; nomenclature; public engagement and participation; capacity building; information exchange; and international collaboration and networks) related to the use of nanotechnology to provide clean water in developing countries.

Specific questions for discussion include, but are not limited to:

- To the extent that nanotechnology presents opportunities, are there risks and issues that need to be addressed?

16:00 Break

16:30 Plenary Discussion – Summary of Key Points from Day 1

17:00 Adjourn for the Day

17:30 Appetizers and Hosted Dinner

Wednesday, 11 October 2006

09:00 Summarize Outcomes of Day 1; Review Agenda for Day 2

09:15 Participant Reflections from Day 1

10:00 Break

10:30 Small Group Discussions – Recommendations for Catalyzing Action

Reflecting on the discussion from Day 1, participants will break into small groups to develop recommendations for catalyzing actions directed at specific opportunities and risks. For example, one group might explore how to promote opportunities and address risks associated with nanofiltration devices while another small group might do this for desalination technologies. Other small groups might address issues that cut across technologies.

Participants will be asked to address questions such as:

- What are the specific opportunities and risks that deserve attention?
- What should be done to inform decisions and catalyze actions specific to these opportunities and risks?
- Which individuals and institutions could help address these opportunities and risks?
- What role can South-South and North-South collaborations play? What role can regional and sub-regional networks play?
- What are immediate next steps?
- Are the recommended actions specific to a product, category of technology (e.g., filtration), or generic across water treatment technology categories (e.g., filtration, desalination, and catalyst)?
- Are there existing initiatives and activities that are focused on these or similar issues?

In the course of the small group discussions, participants will be encouraged to identify connections to relevant other processes and clarify connections to the broader array of GDNP activities.

12:30 Lunch

14:00 Small Group Discussions – Continued

15:00 Break

15:30 Plenary Discussion – Small Group Reports on Recommendations for Catalyzing Action

Small groups report back to the plenary about their recommendations for catalyzing action regarding opportunities and risks. The full group discusses and expands on the results of the small group discussions.

17:00 Adjourn for the Day

18:30 Hosted Dinner

Thursday, 12 October 2006

09:00 Summarize Outcomes of Day 2; Review Agenda for Day 3

09:15 Participant Reflections from Day 2

10:00 Plenary Discussion – Recommendations for Informing Decisions and Catalyzing Actions that Address Opportunities and Risks

Participants will develop recommendations and identify commitments they are willing to make that will help inform:

- Nanotechnology research and development efforts relevant to providing clean water in developing countries;
- Activities to address the potential environmental, health, safety, socio-economic, and other issues related to the use of nanotechnology applications for clean water.

For each recommendation, participants will be asked to comment on the following questions:

- Are these recommendations, which emanated from a discussion about nanotechnology and water treatment devices, applicable in other sectors (e.g., energy, health, agriculture)?
- What on-going role, if any, is appropriate for the GDNP, beyond making recommendations?
- What are immediate next steps?

11:00 Break

11:30 Plenary Discussion – Finalize Recommendations and Commitments from Participants to Help Implement Recommendations

12:30 Closing Comments

13:00 Adjourn – Lunch