



# Water for Two Worlds



*Can space research contribute to the achievement of the Millennium Development Goals on Earth?*

January 16-17, 2004

Meeting jointly organized by the United Nations Development Programme, UNDP, the Earth Institute at Columbia University, NY and the UN Millennium Project Task Force on Water and Sanitation.

The objective of the event is to define areas of possible future collaboration between researcher on Space Life Science and professionals addressing the water and sanitation needs of poor people living in urban and rural areas. The meeting is the first event where the two research communities meet and it has an informal character.

## **Venue:**

Schapiro Hall, Sindebande Room 414

Directions from main campus gate at 116th Street and Broadway:

enter campus and walk north towards Low Library. Continue up steps and around Low on east side (right). Follow long pathway north. Schapiro Center is on your left as you approach the Engineering Center (Mudd Building). Sindebande Room 414 is on your right as you walk through the entranceway, adjacent to Davis Auditorium.

Link to Columbia University map:

<http://www.columbia.edu/cu/aboutcolumbia/maps/sectionD.html>

If you need further information about logistics, hotels etc. please contact:

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# Agenda

Friday, 16 January, 2004

- 0900 - 0915      Upmanu Lall:  
Welcome on behalf of Columbia's Earth and Environmental Engineering Department.
- Introductions
- 0915 - 1045      Roberto Lenton:  
Brief overview of the MDGs and the task force's analyses and interim conclusions
- Ingvar Andersson / Ralf Otterpohl:  
Challenges of technological innovation in water and sanitation  
- What has worked and what hasn't  
- New approaches required?  
- Some emerging terrestrial initiatives on R&D for water and sanitation reuse and recycling
- 1045 - 1100      coffee break
- 1100 - 1200      John Feighery:  
NASA's Advanced Life Support program.  
What is available to date? Its relevance to the MDGs
- 1200 - 1300      Didier Schmitt, ESA et al:  
MELISSA and other ESA relevant research programmes. What is available to date?  
- water recycling systems  
- waste treatment and reutilization  
- food production  
- microbial contamination control and monitoring
- 1300 - 1400      lunch
- 1400 - 1430      Constance Adams:  
How can advanced technologies be designed into daily life?
- 1430 - 1515      David Martin:  
Technology Transfer – from North to South, from space to terrestrial use
- 1515 - 1545      Jackie Scanlon (?)  
Getting the Word Out, building a broader base for support
- 1545 - 1600      coffee break
- 1600 - 1730      General Discussion on How to effect the Transfer:

1. Physical Challenges  
(e.g. redesigning, simplifying systems and methods)
2. Economic / Financial Challenges  
(what will it cost to do this and who will pay?)
3. Legal Challenges  
(e.g. overcoming the barriers of technology transfer, export control and proprietary technology)

1730 - 1800                      Setting an agenda for future collaboration

Saturday, 17 January 2004 (Venue: UNDP Building 304 East 45<sup>th</sup> Street, 10<sup>th</sup> floor, Norway Room)

1000 - 1300                      Off-line or bilateral discussions between participants on topics of mutual interest

## Information about the participating organizations / initiatives

The Millennium Development Goals	<a href="http://www.undp.org/mdg">http://www.undp.org/mdg</a>
UN Millennium Project	<a href="http://www.unmillenniumproject.org/">http://www.unmillenniumproject.org/</a>
UNDP	<a href="http://www.undp.org">http://www.undp.org</a>
UNDP Water Programme	<a href="http://www.undp.org/water">http://www.undp.org/water</a>
IRI	<a href="http://iri.columbia.edu">http://iri.columbia.edu</a>
IWA	<a href="http://www.iwahq.org.uk/">http://www.iwahq.org.uk/</a>
IWA, Specialist Group on Ecological Sanitation	<a href="http://www.iwahq.org.uk">http://www.iwahq.org.uk</a>
NASA	<a href="http://www.nasa.gov">http://www.nasa.gov</a>
NASA, Johnson Space Center, Advanced Life Support	<a href="http://advlifesupport.jsc.nasa.gov/">http://advlifesupport.jsc.nasa.gov/</a>
ESA, Advanced Life Support	<a href="http://www.estec.esa.nl/ecls/default.html">http://www.estec.esa.nl/ecls/default.html</a>
Space Architecture	<a href="http://www.spacearchitect.org">http://www.spacearchitect.org</a>
synthesis international USA	<a href="http://www.synthesis-intl.com">http://www.synthesis-intl.com</a>
the <b>mothership</b> institute	<a href="http://www.mother-ship.org;">http://www.mother-ship.org;</a> <a href="http://www.mothership.cc">http://www.mothership.cc</a>
M-CAM	<a href="http://www.m-cam.com">http://www.m-cam.com</a>
Earthship movement	<a href="http://www.earthship.org">http://www.earthship.org</a>

## List of Participants:

Roberto Lenton, Senior Advisor for International Programs, International Research Institute for Climate Prediction (IRI) of the Earth Institute at Columbia University, NY and Co-Chair of the Millennium Project Task Force on Water and Sanitation.

Upmanu Lall, Professor and Dept. Chairman, Earth and Environmental Engineering, Columbia University

Albert Wright, Professor and Co-Chair of the Millennium Project Task Force on Water and Sanitation.

Constance Adams, Space Architect, Synthesis International, Houston,

John Feighery, NASA, Johnson Space Center

David Martin, CEO M-CAM, Charlottesville, Virginia

Jackie Scanlon. Author writing for WIRED, ID and other magazines (not yet confirmed)

Didier Schmitt, Head of Life Science Unit, Human Spaceflight, European Space Agency, ESTEC, Noordwijk

Christophe Lasseur, MELISSA project manager at ESTEC, European Space Agency, Noordwijk

Aurelien Pisseloup, Health and Safety Technology Applications Coordinator, European Space Agency, ESTEC, MSM-GAL, Noordwijk

Ralf Otterpohl, Professor, Technical University of Hamburg and Chair of International Water Association's (IWA) Specialist Group on Ecological Sanitation

Ingvar Andersson, Senior Water Policy Adviser, UNDP

Lara Yacob, Program Officer, UNDP