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منظمة الأمم المتحدة
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联合国教育、
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**Address by Mr Koïchiro Matsuura, Director-General of UNESCO,
on the occasion of the Opening of the 2008 Water Science Forum
“Cutting- Edge Technology for Water Services: Application in Africa”**

U.S. Department of State, Washington, D.C, 27 June 2008

Doctor Arden Bement Jr., Director of the National Science Foundation,
Doctor Paula Dobriansky, Under Secretary for Democracy and Global Affairs,
Doctor Sharon Hays, Associate Director of the Office of Science
and Technology Policy,
Ambassador Louise Oliver,
Distinguished Guests,
Ladies and Gentlemen,

I am delighted to be here today, for an event which brings together two of UNESCO's top priorities: freshwater and Africa.

First of all, my thanks to Doctor Hays for her very kind introduction. I would like to ask you to transmit my best regards to Doctor Marburger, who has been a very active participant in UNESCO science activities.

I would like to congratulate Under Secretary Dobriansky and Ambassador Louise Oliver for their initiative in organizing this Forum at the State Department. With thousands of lives lost every day due to poor sanitation and unsafe drinking water, the question of how to mobilize cutting-edge technologies for water services in Africa is of utmost importance.

In addressing you this morning, I am humbled to stand alongside so many distinguished scientists. It is my real pleasure to see Doctor Bement again. Let me take this occasion to thank you and the National Science Foundation for all your support to recent efforts to review and reinforce UNESCO's science programmes.

Dr Kathie Olson sat on the high-level panel that oversaw this major effort, helping to forge a future-oriented vision for science at UNESCO.

Excellencies, Ladies and Gentlemen,

In these opening remarks, I would first like to introduce briefly UNESCO's work in freshwater. I shall then turn to the specific challenges in Africa, what we are doing to address them, and what I see as the opportunities for future cooperation with the US.

UNESCO's action in freshwater is based on four main pillars.

The first is the International Hydrological Programme (IHP), which has now been operating for over 30 years. IHP is the only global intergovernmental scientific programme on water resources within the UN system. Its purpose is to strengthen capacity in Member States to achieve internationally agreed water goals and meet national and regional needs.

The Programme has just entered its seventh phase, devoted to the theme, *Water Dependencies: Systems under Stress and Societal Responses*. It will focus in the coming years on four priority areas that tie in closely with the issues under discussion today. These are: climate change impacts on water resources; arid and semi-arid zones; groundwater management; and urban water systems.

I was very pleased to learn that a high-level US delegation attended the 18th session of the IHP's Intergovernmental Council, which took place two weeks ago in Paris. This is significant, as the US science community was pivotal in the establishment of the IHP, and the International Hydrological Decade which preceded it. The late Ray Nace of the US Geological Survey, together with A.N. Tissot of the International Association of Hydrological Sciences and UNESCO's Michel Batisse, were instrumental in launching the Decade. This was the first ever major international collaborative initiative in water, well ahead of its time in recognizing the importance of freshwater to human development.

The second pillar of UNESCO's work is our contribution to the World Water Assessment Programme (WWAP). UNESCO not only initiated the WWAP, which brings together all UN agencies engaged in freshwater activities in a common effort

to address the world's water concerns. We also play a lead role in implementing the Programme, and continue to host its Secretariat, which is currently based in Perugia, Italy.

Before WWAP, UN action in freshwater tended to be fragmented and poorly coordinated. Now, under the Programme, UN agencies are working together to monitor changes in world water supplies and identify policies for the sustainable management of this precious resource.

UNESCO also helped to set up UN-Water, to further harmonize action across the UN system. UN-Water has adopted WWAP as its flagship programme, and today serves as an excellent example of the real value the UN can add when it delivers as one.

As you know, WWAP's most important product is the triennial World Water Development Report. The third edition of this Report will focus on "Water in a changing world". I will have the honour to launch this publication, on behalf of the UN system, at the 5th World Water Forum in Istanbul in March 2009. Many US scientists are contributing to this publication, which is expected to make a decisive addition to our understanding of the current state of the world's freshwater resources, including the risks associated with global climate change.

The third pillar of our water-related action is the UNESCO-IHE Institute for Water Education in Delft, The Netherlands, headed by Richard Meganck from the great state of Oregon. UNESCO-IHE is the largest water education facility in the world, with around 14,000 alumni. Almost all of the water specialists trained at the Institute come from the developing world, and the great majority return to work in their countries of origin.

In addition to training students, UNESCO-IHE also collaborates closely with universities and other institutions on various water education, research and capacity-building activities. For example, UNESCO-IHE recently partnered very successfully with the US Army Corps of Engineers to train Iraqi civil servants in water management.

The fourth and final pillar of UNESCO's work is the network of seventeen water-related Centres that operate under the Organization's auspices and twenty-four

UNESCO Chairs on freshwater. These Centres and Chairs are providing important support in terms of capacity development and networking.

As Doctor Hays announced, the US is proposing the creation of an International Centre for Integrated Water Resources Management under the auspices of UNESCO, the first UNESCO category II centre to be established in the US. It is to be hosted by the US Army Corps of Engineers, in partnership with an impressive list of universities, professional organizations and government agencies. The Centre will serve as a hub for the development and transfer of best water management practices and technologies for the benefit of developing nations, in particular in Africa.

I am pleased to report that this proposal was endorsed by IHP's Intergovernmental Council at its meeting earlier this month, and will now go to UNESCO's governing bodies for approval. This is a very welcome initiative, which promises to mobilize the extraordinary American expertise in the hydrological sciences for the benefit of the international community.

In addition, later today, I will sign the agreement for a new UNESCO Chair at the University of Washington to promote international research on sustainable river management. This will be a valuable addition to a growing network of excellence.

Together, these four pillars have helped UNESCO to develop what is widely recognized as the strongest and most wide-ranging freshwater programme within the UN system.

Excellencies, Ladies and Gentlemen,

Africa is a top priority for UNESCO in freshwater, as across all our programmes. The continent faces immense challenges. Goal 7 of the Millennium Development Goals (MDGs) is to halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation. On current trends, Africa will not meet the sanitation goal until 2075. The region also has the lowest water coverage rates in world – on average just over 50%, and much lower in many countries. This represents a tremendous brake on development efforts, in terms of poor public health, lost workdays and missed school.

The UN has proclaimed 2008 the International Year of Sanitation, in an effort to galvanize action towards this neglected goal and raise awareness of the potential huge returns.

And there *are* many encouraging new signs.

The first is renewed African leadership. As Doctor Dobriansky mentioned, the theme of the African Union Summit starting next Monday in Sharm El-Sheikh, Egypt, is “Meeting the MDGs on Water and Sanitation”. This demonstrates the determination of African leaders to accelerate progress in this area, building on the work of the African Ministers’ Council on Water.

More broadly, African countries have embarked on a major initiative to strengthen science and technology across the continent, and foster research that responds to African development needs. Strengthening the knowledge base and capacity for freshwater management is at the heart of this endeavour.

UNESCO assisted the African Union in developing the plan of action for this initiative, and is now working closely with African countries to implement its recommendations, notably in establishing sound policy frameworks.

The second positive sign is growing international recognition of the urgent need for action in this area, as we cross the halfway point towards the 2015 target date for achieving the MDGs. Next month’s G8 Summit in Hokkaido will give particular attention to water issues, within the context of African development. The UN high-level MDG event on 25 September in New York will be another occasion to mobilize international partnerships behind the water and sanitation goal.

Let me signal here what UNESCO sees as some of the priority areas for action, and where the US could provide valuable support.

The first priority is better water management. This is increasingly important as factors such as climate change, population growth and urbanization place greater pressure on water supply, exacerbating shortages and increasing the possibility of instability or conflict.

A second related priority is the need for improved information, monitoring and assessment, to identify needs and develop evidence-based policies to meet them.

In both management and monitoring, the real challenge is that of strengthening human and institutional capacity in Africa, at the local, national and regional levels.

UNESCO has identified several core areas for support in the years ahead. These include building capacity for: the management of transboundary water resources; the assessment of drinking water quality in urban and rural areas; and the improvement of water information systems, in particular through the use of advanced technologies such as satellite imagery. UNESCO is also working to strengthen African IHP National Committees so that they can exercise real leadership on these issues, in collaboration with the African Ministers' Council on Water.

Many of these activities have links with the US scientific community – links that I hope can be strengthened. The US is an important partner in the IHP G-WADI initiative, which aims to create a global information network to support water management in arid and semi-arid zones. The US has also been collaborating closely with UNESCO to develop a drought monitoring system, which will soon begin testing in Africa.

I see rich opportunities for US institutions to partner with UNESCO-IHE in meeting the very large deficit of trained personnel. We estimate that if the water and sanitation MDG is to be met in Africa, a 300% increase in the number of water specialists is needed.

Finally, one interesting recommendation to come out of the recent regional meeting of African IHP National Committees was the possibility of Committees from the North partnering with those from developing countries to help strengthen their capacity.

Excellencies, Ladies and Gentlemen,

I would like to leave no doubt that UNESCO warmly welcomes a strengthened US initiative in freshwater at the international level. We are ready to explore further cooperative arrangements within the scope of UNESCO's freshwater programmes

in order to help make the incredible wealth of US water knowledge and technology more accessible globally, particularly in Africa.

I am certain that we can look forward to very fruitful discussions. Be assured that UNESCO will be following your deliberations closely. Thank you.