CENTER FOR STRATEGIC AND INTERNATIONAL STUDIES GLOBAL STRATEGY INSTITUTE AND SANDIA NATIONAL LABORATORIES

CSIS-SNL GLOBAL WATER FUTURES WORKSHOP

DAY ONE: FEBRUARY 8, 2005

9:00 AM – 9:15 AM
INTRODUCTION

9:15 AM – 9:45 AM
SETTING THE STAGE:
"WORLD'S WATER ON COUNTDOWN"

SPEAKERS:

ERIK PETERSON, CSIS
PETER DAVIES, SANDIA NATIONAL LABORATORIES

Transcript by:
Federal News Service
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ERIK PETERSON: Well, good morning and a warm welcome to all of you. I'm Erik Peterson. I'm senior vice president here at CSIS and director of the Global Strategy Institute. And on behalf of my colleague Peter Davies, and on behalf of our partner – CSIS's partner, Sandia National Laboratories, I'm delighted to welcome you to this first of two workshops that we'll be holding on the issue of global water futures. We'd like to thank you for attending today. We have a terrific group of people here representing a number of different segments of expertise, a number of different perspectives. And we're all here to think through the strategic implications of a critical resource from a number of directions.

Now, my colleague Peter Davies will come back to the structure of our discussion momentarily, but I wanted to share with you a couple ideas about the genesis of this project and what we hope to achieve. The bottom line here is that in the face of a number of conferences and a number of discreet efforts to look at the issue of water, what we hope to do is to develop an understanding of the broader international dimensions of water: water access, water quality, its impact on human health, sanitation, linkages between water and economic development, and implications of water-related trends for international stability and security. Now, that of course is a tall order. How do we hope to achieve that? Well, in the course of these two relatively short workshops, we hope to zoom in on two specific dimensions of the challenge, namely, potential innovation, that I hope we can explore in the area of policy today, and then in the next workshop, scheduled for the 8th and 9th of March, we'll be looking more specifically at the role and innovation in the area of technology.

Now, what we'd like to do today is to illuminate the role, the interface between policy and technology, to better understand what links these areas and how we might be able to use that interface to improve the policy-making process. So I think we have our work cut out for us, but I'm heartened by the level of expertise represented in this room. I'm very hopeful that we will be able to at least come up with a number of new ideas down the road.

Now, what do we hope to do with the discussion of these two water workshops? Well, first of all we'll be forming a senior policy group that I hope will generate broad principles and perhaps specific policy recommendations on the broader challenge of international water. I'm delighted to say that yesterday Senator Jeff Bingaman agreed to co-chair that group and we'll be looking for a Republican counterpart. We have some terrific ideas on that, so more news to follow. But we'll put together a group consisting of government, private sector, NGOs, and academia, and other groups that I hope will be able to generate a very, very robust set of principles and byproducts.

Beyond that, for our present purposes we will be issuing a white paper as the result of these two workshops. You have a draft copy of our preliminary thinking in front of you. As I understand, it's been distributed as part of the materials made available to you. I'd really invite you to look that over and please let us have your candid comments.

Our respective teams at CSIS and Sandia worked very hard on this document, but we know that it would be enhanced significantly with the benefit of your insight and your perspective. And finally, both CSIS and Sandia will be putting together a joint website, which will have a number of features including some of the bibliographic material that we've pulled together and other secondary information that we hope will be helpful to promote debate as we move forward.

So with that, by way of introduction let me make a general comment. We have a high level of expertise represented in this room and we're very, very proud of the list of speakers who have kindly agreed to participate in today's proceedings, but I hope that all of you will participate in whatever way you can. We hope that the nature of our meeting here today will be transactional: two-way rather than one-way. In that regard, I would like to stress that most of today's meting will be on the record, but I hope you'll help me honor the request at lunch – Paula Dobriansky of the State Department has asked that that section of the conference be off the record, so we'll honor that request that she's made.

So apart from that, I'd like to acknowledge with great gratitude the cooperation from CSIS. They would like to acknowledge the cooperation that we've had with Peter Davies and his terrific team from Sandia. And I'd also like to acknowledge with gratitude the sponsors of this conference. ITT has made this event possible with its support, and also Coca-Cola and Proctor & Gamble have provided important support as well, so we're deeply grateful to them. They all have representatives here.

So with that now, it gives me great pleasure to introduce my colleague, Peter Davies of Sandia National Laboratories, the head of a terrific team represented here that you'll be meeting during the course of the day. So, Peter, welcome.

PETER DAVIES: Thank you, Erik.

Good morning. I'm going to comment just a little bit here about what the specifics are for this first workshop. The way we've structured this first workshop is we want to focus on the policy dimensions of international water and the challenges that are there, in particular three themes: the question of why – what are the range of linkages between international water and US national interests; the what – what potentially can be done is being done, should be done; and the how – how do you make those things happen?

Relative to the why, our first panel and the discussion that we'd like to have following that first panel, we're interested in understanding the full range of dimensions of this why question. And there are multiple dimensions – there is a national security dimension, there is an economic development dimension, a human health dimension, commercial dimensions, environmental dimensions – and our major objective is to understand each of these dimensions and to understand how they interact with one another, because in terms of illuminating what policy kind of things are important, what technology opportunities there are, how you make the technology and policy work together, really understanding the breadth of those dimensions is very important.

The second panel this afternoon is going to focus on the what. What are we doing today? What kinds of things might have the most impact? What are the highest priorities? What are the major solution themes? And then tomorrow morning we are going to have a third panel that will focus on the how. We want to understand how the U.S. formulates its policies relative to international water today, and how this might be improved in the future. We'd like to know how we can accomplish things such as improving the efficiency of national and transnational governance issues, reduce supply-demand pressures, support infrastructure development, develop creative ways to address financial resources to enable market-based solutions, and to promote multi-lateral cooperation. That's a tall order and we're delighted to have the diversity of people here today because this collective group represents expertise in virtually all of those area.

In addition to those three panels, we have a number of distinguished guests. As Erik mentioned, Paula Dobriansky from the Department of State will be with us at lunchtime today. Tonight we want to invite you to see the premier screening of a new water documentary called "Running Dry," by Jim Thebaut, and Jim is here with us today.

MR. PETERSON: Jim, good morning.

MR. DAVIES: And then tomorrow morning we are going to have a morning address by Steven Loranger, who is the President and CEO of ITT Industries. And then tomorrow at lunchtime we are expecting a statement from Senator Frist. Senator Frist has been a strong supporter of this effort. He was with us two weeks ago in an event in this room around the annual gathering of the Alfalfa Club. And as you can probably guess, he's a little bit tied up on the Senate floor today with budget-related things, but we expect to have a statement from Senator Frist sometime today, and we'll have that for the group tomorrow at lunchtime.

So that's the structure of the days – today and tomorrow – that we have planned. I'd like to really reinforce Erik's comments about having a transactional, interactive environment and really the purpose of our comments, the presentation that we'll make shortly, the panel discussions, is to stimulate discussion and that discussion and capturing the ideas from around this table is an important part of what we would like to do today. And so as a matter of process we'd like to ask that when you pose a question or make a comment that you first identify yourself and your organization. That way will be one mechanism that we can use so that you all can get to meet one another and know first-hand the people that are here. We ask that you keep your questions and comments succinct and focused on that particular issue that's on the table at any given time.

So at this point I'd like to introduce the presentation that Erik and I are now going to give to you. A little over two weeks – there was a luncheon, as I mentioned, in this room and Senator Frist shared some of his perspectives and experiences related to international water. And in those keynote comments, Senator Frist made a number of observations leading to the conclusion that leadership in water can be a powerful currency for peace, and it's an overall theme that I believe we will continue to hear from

the senator. The lead-in presentation to that meeting two weeks ago was a presentation that Erik has created – was given by Erik and Jay Farrar, called The World's Water on Countdown, and we're going to present this, Erik and I, right now, as a means of setting the stage for this workshop and getting us started for the day.

MR. PETERSON: And by way also of preambular comments, I'd like to thank Jim Thebaut again for allowing us to use cuts of his magnificent film you'll see. So this is a precursor of this extraordinary film that I hope that you'll be able to join us to see tonight. So with that, let's begin.

MR. DAVIES: All right? Okay.

MR. PETERSON: We'd like to begin here by asking you to imagine for a minute that somehow we could compress the entire volume of water on planet Earth into a single gallon. Of that gallon, a mere four ounces – some 3 percent – would be fresh water and the amount of that fresh water available to humanity – that is, not immobilized by ice or locked underground – would be a mere two drops. And the bottom line here is that humanity already accounts for one of those drops.

MR. DAVIES: Our presentation today will focus on something that many of us take for granted: the strategic resource of water.

(B-roll.)

MR. PETERSON: Now, let's begin our comments here by asking you to have a close look at the glasses of water that many of us have in front of us on the table.

MR. DAVIES: Few of us take this vital resource, water, and give it a second thought. But the glass in front of you embodies fundamental questions about the future. Where did the water come from? Where has it been? What does it contain? What did it cost to bring to you? How plentiful is it? And how plentiful will it be in the future? How important will water be to our future, to our economic welfare, to our personal health, and to the stability of the world around us?

MR. PETERSON: Now we'd like to invite you to look at the center of the room, at the container that is being uncovered right now by our colleague. Now, certainly many of the survivors of the devastating Indian Ocean tsunami two months ago are facing these kinds of water conditions right now. But above and beyond those devastating circumstances – those unique circumstances – we would like to stress that much of the rest of the world must also deal with conditions similar to what you see in this container. What you see is the daily reality for much of the world.

MR. DAVIES: The bottom line here is, how effective will we adjust to the challenge of water? How well we can manage supply, demand, quality, and distribution of this strategic resource, will mean the difference between life and death, between health and disease, between stability and instability in key regions across the planet. The

bottom line here is that billions of lives across the planet will be affected by how well we manage to manage the strategic challenge of water.

MR. PETERSON: Now, where do things stand now and where are things going? Well the latest UN World Water Development Report summarizes the current state of affairs in this way:

MR. DAVIES: Lack of access to water for meeting basic needs, such as health, hygiene, food security, undermines development and inflicts enormous hardship on more than one billion members of the human family, and its quality reveals everything, right or wrong, that we do in safeguarding the global environment.

MR. PETERSON: Now, as we zoom back, as we look at the big picture of this global resource, we need to focus on four key human dimensions to the current challenge we face: dimensions including water access, water quality, sanitation, and finally, economic development.

MR. DAVIES: First, there's the issue of water access. We suspect that many of you have seen some of these mind-numbing figures, but we'd like to revisit a few of them, if nothing else, to emphasize the scale and the scope of this strategic issue.

MR. PETERSON: Let's begin here with global demand. The upshot here is that one-third of humanity. Located in more than forty countries, is now short of water. Over one billion people across the planet do not have what the World Health Organization characterizes as improved water supply.

MR. DAVIES: Looking forward, the predicament will be more people, less water. Today, some 500 million people live in countries that are chronically short of water. By the middle of the century, when the global population grows from 6.4 billion today to nearly nine billion, the number of people chronically short of water could skyrocket to as many as four billion.

MR. PETERSON: Now, the rate of global water withdrawal – that is the amount of total water withdrawn from its source is rising, and rising rapidly. According to UNESCO, consumption has risen almost seven times over the past century, from 580 cubic kilometers in the year 1900 to nearly 4000 in the year 2000. And it is expected to grow even faster, to some 5200 cubic kilometers by the year 2025. We'd like to invite you to think about it this way. By the year 2025, we can expect to see global shortfalls of water equal to 2000 cubic kilometers. That is the equivalent of the annual flow of ten Nile rivers, 110 Colorado rivers.

MR. DAVIES: Does this mean that there is not sufficient water on the planet to carry our burgeoning population? That is an open question. But what it does suggest, in the clearest of terms, is that we have a growing crisis of management. A failure to make clean and safe water available to our population while protecting the environment around us.

MR. PETERSON: And in the meantime, this drawdown of this global strategic resource, water, is playing itself out day by day across the planet. These time series photographs from LandSat begin to tell the story. Here is the Aral Sea in Central Asia, where relentless water demand, primarily for agriculture, has left the sea less than only a fraction of what it was thirty years ago. Its area has decreased by some forty percent, volume has almost fallen by sixty percent, its salinity has almost tripled, and groundwater levels in the region have fallen by five meters.

MR. DAVIES: Another compelling example is Africa's Lake Chad, which is now one-twentieth of its size in the 1970's. This disappearing lake is critical to the economies of four countries that bound it: Chad, Niger, Nigeria, and Cameroon.

MR. PETERSON: Now, looking forward, the same observation applies to rivers. The list of rivers that no longer consistently reach the sea or the ocean includes the Colorado River, the Rio Grande, and five of the most important rivers in Asia, the Ganges of India and Bangladesh, the Indus of India and Pakistan , the Sirdaria and the Amudaria in Central Asia, and the Yellow River in China.

MR. DAVIES: Driving back this challenge of lack of water access is widely-dispersed geographically, but two regions in particular are becoming epicenters of water stress – the Middle East and North Africa one hand, and sub-Saharan Africa, on the other. It is important for us to remember that both of these regions have the fastest growing populations in the world.

MR. PETERSON: Now, as we consider future trends, we need to be mindful that there is a strong correlation between increases in water demand and rapid economic development. Consider China, for example, where demand for water is being projected to rise by four hundred percent out to the year 2030. Now, in contrast, also in looking forward, we can also draw a strong correlation between lack of water and lack of human development. Currently, more than 850 million malnourished people in rural areas principally, across the planet simply do not have sufficient water access to meet subsistence needs. Their prospects, we believe, will grow even more dire as the populations there continue to grow.

MR. DAVIES: The issue of inequity is also striking. For example, the United Nations has estimated that one flush of a Western toilet uses as much water as the average person in the developing world uses for a whole day's washing, drinking, cleaning, and cooking. The fact is that the developing world uses 20-50 liters of water per person, per day. We can compare that to the average use of 200 liters per head in Europe and 400 liters per head in this country.

MR. PETERSON: Now, we also need to be thinking about the issue of water quality, and the upshot is that across the world, the quality of water is under assault from human waste to industrial waste and chemicals, from heavy metals to agricultural pesticides and fertilizers, and the challenge is already especially acute in the developing

world, where according to recent estimates, a staggering one half of the population is exposed to water pollution that we believe increases the incidence of disease.

MR. DAVIES: Consider the water quality challenges in China and India alone. In the Chinese countryside, home to some two-thirds of its 1.3 billion population has become a dumping ground for environmental degradation associated with the country's meteoric economic growth. By one estimate, because of water pollution, liver and stomach cancers are among the leading causes of death in the countryside. A recent series on China's water in The New York Times was appropriately titled, "The River Runs Black."

MR. PETERSON: In India, a report that we saw has concluded that India's rivers, especially the smaller ones, have turned into toxic streams. The assault on rivers and population growth, modernization, urbanization, and industrialization is enormous and growing by the day.

MR. DAVIES: We can only begin to fathom the broader dimensions of this challenge. For example, nearly one-half of the world's schools cannot offer to children either access to clean water or sanitation. Across the world, some 2 million children die each year from water-borne diseases.

MR. PETERSON: You know, it's daunting – as this challenge of water quality is – the encouraging news is that there is much that we can do to meet this challenge. For example, I would like you to look again at the container in the middle of the room. And please watch as this small packet – this is a product called Pure from Procter and Gamble – is mixed into the water. And we'll come back to this in a little while.

MR. DAVIES: A third critical dimension is water sanitation: the way we deal with sewage, treatment of human waste, and personal hygiene. Here the indicators are equally compelling.

MR. PETERSON: The World Water Development Report has estimated that, and I quote: "At any given time, close to half the population of the developing world are suffering from one or more diseases associated with inadequate provision of water and sanitation services. The same report estimates that there are about 4 billion cases of diarrheal disease a year, resulting in between 1 and 2 million deaths, some 90 percent of which, tragically, are among children under the age of five.

MR. DAVIES: Why? Because of inadequate sanitation; because every day, 2 million tons of human waste are released into rivers and streams around the world. Add livestock waste to the equation and the number gets even higher.

MR. PETERSON: Now, finally, as we scan the global water horizon, we need to think about the economic cost, both direct and indirect, including foregone development and other economic activities associated with poor water access and inadequate sanitation.

And here we would like to raise two very compelling examples. Here is the first: An estimated 40 billion hours of labor – 40 billion – are lost in Africa each year as a result of the need, primarily by women, to walk long distances to collect water and then carry it back to their families. Now, the second example here, equally compelling, is India, where current estimates suggests that water-borne diseases cost some 73 million lost working days each year and some $600 million in medical treatment and lost production.

Now, both these cases are clearly only anecdotal evidence. The fact is we do not have a clear sense of these economic costs on a global scale. But there can be little doubt that the silent killer of lack of water access, poor water quality, and inadequate sanitation is exacting an enormous toll on livelihoods across the planet.

MR. DAVIES: The upshot here, with the current challenges we face in access, quality, sanitation, and economic cost, is that water is a major and growing challenge to global health, nutrition, economic development, and social and political stability. As Senate Majority Leader Bill Frist, who is a strong supporter of our efforts in this imitative on world water futures put it in a recent statement on the Senate floor, "The statistics are staggering and should alarm any person of conscience."

MR. PETERSON: So if these are the symptoms, or if these are the dimensions of the challenge that we face, then how do we go about addressing this complex challenge? Well, we obviously will be debating that today and tomorrow by examining this challenge from a number of important expert perspectives. But as a staging point here, we would like to point to five priority areas.

MR. DAVIES: First, we need to reduce pressure on both the supply and demand sides of a global water equation. On the supply side, that implies continued development of technologies to expand our capacities to bring water where it is needed. Here, advances in high tech desalination, micro-pollutant removal, filtering, advance sewage treatment, cloud seeding, water harvesting, disinfection, and other sophisticated water technologies can offer new supplies at ever lower costs, and ever higher efficiencies.

MR. PETERSON: And beyond that, the wider mobilization, the wider dissemination of what we can call low-tech – for example, hand pumps at the village level – can change the supply outlook in many poor rural communities. Beyond that, innovations in management systems and technology can also help alleviate pressures on the demand side. How? Well, by reducing the massive waste of water, for example, or reducing water requirements by source.

And a compelling example here is drift irrigation, which could lower the significant quantities of water associated with global agricultural production. Now, other demand approaches include low-flow household appliance, evaporation suppression at reservoirs, reuse, recycling, and improve pumping and distribution infrastructures, and subsystems.

MR. DAVIES: Any progress on both sides of the supply-demand equation can help offset some of the relentless population growth that we are now projecting. In the end, however, our capacity to address the problem will depend on whether we can develop and implement integrated water resources management -- the coordinated development and management of water to maximize return.

MR. PETERSON: Now, the second key priority that we would like to highlight is the development of sanitation infrastructures in countries across the planet. And here, the dimensions of the challenge are as straightforward as they are massive: some 2.6 billion people, nearly one-half of the developing world, is now without adequate sanitation; that means without even basic latrine access.

MR. DAVIES: In order to reduce by one-half the number of people without access to sanitation by 2015, the Millennium Development target we have set for ourselves five years ago, we need to provide 1.5 billion people with access to safe water and two billion to basic sanitation. That implies that some 125 million people each year or more than 340,000 every day will need to be connected to infrastructures.

MR. PETERSON: Now, over 50 percent of the population without improved sanitation lives in China and India. And as this map suggests, Sub-Saharan Africa also has a serious challenge in its efforts to improve its level of sanitation.

Now, the third priority area that we would like to highlight here is expanding the financial resources necessary to develop water infrastructure. We'll be spending a great deal of time talking about that. Now, this implies clearly building on the commitments and the action plan on the global water strategy developed G-8 member states at their Evian Summit in 2002. It also implies redoubling efforts to enable public private sector partnerships, and it suggests reinforcing the role of international finance institutions, regional development banks, in helping develop a range of answers to water infrastructure challenges.

MR. DAVIES: A recent U.N. study suggests that between 14 (billion dollars) and 30 billion (dollars) a year, on top of the 30 billion (dollars) annually already directed to infrastructure development, will be required to meet the Millennium Challenge targets.

MR. PETERSON: But the reality is – many of you know, however – is that water share of official development assistance has been declining over recent years. The reality is that assistance from the OECD countries has been concentrated in a small number of projects in a small number of countries. And the reality is that those countries in most desperate, most significant need are getting little, if any, of the assistance they've made available. Consider this: in the year 2000-2001, only 12 percent of total OECD assistance went to countries in which less that 60 percent of the population had access to clean water.

MR. DAVIES: Financial inflows necessarily must also be contingent on effective water governance in target countries. Such governance is by definition a precondition for long-term development of water access and sanitation infrastructure.

MR. PETERSON: We like to add here that another important point related is that financial resources for infrastructure development must be mobilized to support the lifecycle costs – everything from installation to maintenance to all the environmental costs, both short and longer range. ITT Industries, for example, has reduced maintenance and operating costs on its pumps by a full 30 to 50 percent.

MR. DAVIES: A fourth priority is the need to transition to market-based pricing for water. Rationalizing global use of water is simply not possible when its use is subsidized and prices are seriously distorted. Assigning real world prices to such a vital real world resource is necessary to achieve higher efficiency.

MR. PETERSON: Now, sustainable water management – that is, from water source to waste water treatment – implies cost recovery. Period. Now, how do we move forward on this? Well, first – we can debate this of course – but first, we believe, by putting into place traditional water use charges to support infrastructure development and maintenance and operation; second, by introducing pollution charges and tradable permits for withdrawals of release of pollutants; and finally, third, by removing subsidies on water.

MR. DAVIES: The tragic irony is that in many areas of the world, the poor, not the rich, but the poor pay higher prices for their water because they have no connections to infrastructure. They are the frontline victims. According to a recent study, populations in urban areas in developing countries pay as much as 20 times more for water than those residents connected to infrastructure.

MR. PETERSON: As the Director of the UN-HABITAT, Anna Tibaijuka has warned, and I quote, "The battle for water and sanitation will have to be fought in the slums and shanties in the growing urban areas of developing countries."

MR. DAVIES: As the fifth and last priority area, we need to promote multilateral cooperation of shared river basins. The latest World Water Development Report summarizes the circumstances this way: "Water has been a major factor in the rise and fall of civilization. It has been a source of tension and fierce competition between nations that could become, even worse, a present trend continuing."

MR. PETERSON: And it follows that we need to consider here the geopolitical dimension. The fact is, more than 260 river basins across the world are shared by two or more countries. And of these, 13 are shared by five or more countries. No fewer than 22 countries across the planet are heavily dependent on the flow of water from upstream nations. Moreover, there is a strong correlation, as you might expect, between those regions and high levels of population. In fact, some 40 percent of the world's people has now situated in those potential water conflict areas of the world. Now, while increasing

scarcity may imply the possibility of future instability, future conflict, we believe it also represents the opportunity for countries to develop joint approaches and cooperative frameworks in the future.

MR. DAVIES: The United States is and will be critical to the extent to which we make progress in each of these priority areas.

MR. PETERSON: Now, we believe that there is a compelling case for the U.S. to assume a leadership position in a number of these World Water challenges. The extent to which regions and countries cope with existing and future water dislocations will clearly have profound implications for U.S. national security interests. U.S. commercial interests are well positioned to contribute to the expansion and development of this global water infrastructure. The importance of water to economic development suggests that it is critical to this country's foreign assistance and humanitarian interests as well. And finally, as the tsunami relief efforts have demonstrated, significant U.S. engagement in international water issues represents an opportunity for this country to project its principles to key areas of the world.

MR. DAVIES: The reality is, however, that in order to take a global leadership position, this country's commitment will need to be strengthened and strengthened considerably. Last year, for example, USAID devoted less that 325 million (dollars) to international water supply and sanitation projects. Of this, the lion's share went to the Middle East, while less than 20 million (dollars) went to Africa. Raising water on the lit of U.S. national priorities would imply better coordination between government agencies, strengthening the 2002 to 2005 Water for the Poor Initiative and the three-year commitment by the United States of 970 million (dollars) building on the 2002 World Water Summit for Sustainable Development in Johannesburg advancing innovative regional programs, focusing on sub-Saharan Africa and other priority areas and continuing to work with other donor countries – Japan and the E.U. states to further advance the G-8 action plan.

MR. PETERSON: Now, ladies and gentlemen, we'd like to end our comments here with a simple message: we can indeed address this challenge of global water, as profound, as daunting as it is. And now I'd like to invite you look again at the center of the room here at that container of water, that mixture that we uncovered at the beginning of this presentation. Now the water, as you can see, is now being filtered and it will soon be very drinkable. And anyone who would like is welcome to give it a try. We've let it sit long enough, right? We've got Greg Allgood here from P&G. And it, in effect, Greg says, is the equivalent of a water sanitation process that we would see in an industrialized country in a packet.

I'd like to note here that the single packet has disinfected the water first by removing heavy metals and then killing parasitic cysts. What are the economics? A 7-cent packet cleans water at less than a penny a liter, and we believe that this product and a range of other technologies that we'll be discussing today and at our March workshop

meeting as well – that this technology is symbolic of the things that we can do to address this global challenge of water.

MR. DAVIES: I'd like to conclude with the observation that we are all on a global water countdown.

MR. PETERSON: We're on a countdown to improve conditions in water-stressed regions across the world.

MR. DAVIES: On a countdown to reduce the high human costs associated with poor sanitation –

MR. PETERSON: On a countdown to rationalize the use of water on market-based supply demand driven criteria.

MR. DAVIES: On a countdown to mobilize technologies, both existing and on the horizon, to alleviate relentless demand pressures.

MR. PETERSON: On a countdown to define and then to mobilize the organizational structures and procedures necessary to move the ball forward.

MR. DAVIES: The kind of world that we will see around us in the years to come, the kind of world we are creating today, both through our actions and through our inactions, will be defined in a large part by how well we can succeed in addressing the global challenge of water. The lives and livelihoods of billions of lives across the world are already affected. The lives of billions more will also be influenced by how effectively we can rise to the challenges.

MR. PETERSON: So I hope in these comments we've captured some of the rationale that both CSIS and Sandia National Laboratories have for launching this effort on global water futures. What we'd like to do in particular is to identify target areas for innovation in two realms: the first in innovation, what we'll be discussing today and tomorrow, and then in technology, which is our March meeting. Let me again note with gratitude the support of our donors, ITT and also the additional support we've received from Proctor & Gamble and Coca Cola.

MR. DAVIES: That brings us to the end of these comments which are intended to set the stage for our discussion here today. We leave you with a set of powerful images that outline the tremendous human dimension to this issue drawn from the film "Running Dry," whose writer-director Jim Thebaut we introduced earlier today. And as you know, he has agreed to show this film to us tonight at 7:00.

(Music.)

MR. PETERSON: So, ladies and gentlemen, that is our mandate. Over the next few hours, the next day and a half, what we'd like to do is to explore areas of potential

innovation in the sphere of policy from a number of discreet angles. We're counting on you to engage in this discussion. So thank you so very much for hearing us out. (Applause.)

We'll start with our first panel. I'd like to suggest that we take a short break to set up. It gives you a chance to refill your coffee cup and we'll start momentarily in a couple minutes. Please don't worry too far away.

(End of session.)