

WATER MARKETS

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Good morning!

It is great being back here again this morning for the second day of the conference on economic globalization, the environment and civil society in honor of Professor Dr. Tuiskon Dick. I would like to start now by thanking both of the two organizers of this wonderful conference, Professor Claudia Lima Marques and Professor Beverly Kahn.

Again, it is a great honor to be here amongst all of you and have an opportunity to talk to you about this tremendously important issue. I have been asked this morning to talk about water markets and, particularly, about international water markets. This concept of international water market actually encompasses two separate concepts.

The first concept relates to international water transfers where water, which is found in one nation, is transferred for some market price to consumers in another nation. The second issue, which is encompassed in this idea of international water markets, is privatization. Both of these topics are extremely important and highly controversial.

These issues are assumed important because water is the most critical resource on the planet. If you think about all of the various natural resources, the only one without which we cannot get by now is water. We could even survive without something as important as energy, provided that we could rely on modern energy resources. But none of us can get by without water. Not only can we not survive without water, but there is no industry that we could engage in without water. We need water not only to survive but also to develop and thrive. Therefore, water is extremely important. The idea of international water markets, on the other hand, is highly controversial for two reasons. First of all, as you all have been told this morning, international trade issues are highly controversial. They are very passionate,

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they raise many disputes and water is something about which people become highly passionate. I do not reckon anyone of you has looked at the history of water in the United States, but I can tell you that people have actually killed each other over water resources in the western US because of its importance to them, to their life. So, when you combine one controversial topic (international trade) with another controversial topic (how we manage allocated water resources), that will surely result in one of the most contentious and controversial subjects that you can find.

In my comments this morning I will not provide you with any final answers on how we should think about water in the context of international trade. Instead, I simply want to raise a variety of ideas and concepts and, hopefully, stimulate all of you to think about this subject further. I will tell you, however, about my tentative conclusions. I think that there is an important place for international trade and water trade between nations. I also think there is a limited but important role for private companies to play in supplying municipal and agricultural water, but I believe that water is unique enough and important enough that we cannot apply to the issue trade concepts which we use for ordinary goods. Water would not be comparable to automobiles or the various kinds of agricultural crops.

What I want to do in the remainder of my comments is, first of all, talk about international water transfers, taking water and marketing it from one nation to consumers in another nation and then, second of all, talk about privatization. In each of these subjects, I will discuss three different topics: first of all, what the value of the market is, what the market provides. Second of all, what the concerns or problems that people have identified in connection with these two quite different markets are. And third of all, what international trade agreements currently say about each of these two types of international water markets.

To start with the subject of market transfers, I would like to mention that we actually have a great deal of experience in the US on the subject. So far today, the water is traded between one entity and another entity or one individual and another individual and we have begun to get a good sense of what the benefits of establishing water markets are. I should start now by referring, of course, that water markets and water transfers are valuable only where water is scarce, to the degree that, where you have more than enough water, water markets do not provide any value at all. Just as in any market, you need a scarce good for the market to play a valuable role. But I am warning you, who might think that if we come from an area where there is a lot of water we do not have to worry about water markets, that, as populations grow around the world, areas that historically did not need to worry about markets have suddenly become very interested in them. In the US, for example, Florida historically had a great deal of water, but as the population in Florida has grown, they have become suddenly very, very interested in the subject of water markets. So, what are the potential benefits in water markets? First of all, water markets can help guarantee efficiency and the rational use of water and permit the government to focus more on equity in the allocation of water resources. Let me give you an example that comes from the state of Texas in the United States. In Texas, there is an Aquifer known as the Edwards Aquifer, which, for

many years, has been used both by farmers and by the growing city of San Antonio. As farmers have grown more crop than San Antonio has grown, they have begun to overdraft the Edwards Aquifer. I talked yesterday, in my presentation, about all of the various problems that overdrafting an aquifer presents. And so, Texas realized that they had to reduce the amount of water that would be taken out of that particular aquifer. When thinking about how Texas would allocate the limited water from the Edwards Aquifer, there were some groups, the farmers, for example, who argued that everyone should get some of the water from the Edwards Aquifer and decide how to allocate the water. You should look at how much water people have historically been using, so that when there are farmers who had historically been using a large amount of water, for equity reasons they should get a large share of the limited amount of water that Texas could commit to be taken out of the Edwards Aquifer. On the other hand, the city of San Antonio said "no". What we really should be worrying about is where the most valuable use of our water relies. And the city of San Antonio argued (of course it was the city of San Antonio) that it was there where all of the limited water should go.

What Texas ultimately decided was that they should allocate the water in an equitable fashion. They should have awarded it proportionally to everyone that historically had taken water out of the Edwards Aquifer and they did not have to worry about efficiency because they could rely upon water markets to provide efficiency. You could, for equity reasons, give the water to the farmers, and then to the city; if they had more valuable uses for the water, they could purchase some of that water from the farmers. So, again, water markets permit us to allocate water on equitable grounds and then let the market make sure that the water is used efficiently.

Second of all, water markets provide incentive to conserve it. If, for example, farmers can conserve some water and then sell it to the city of San Antonio, then they would want to see ways in which they could actually be able to reduce their water use to conserve the water because there would now be an economic incentive to transfer the water to somebody else.

Third of all, in the US, water markets are permitting non-governmental organizations to increase the amount of in-stream flows for environmental purposes. In the state of Oregon, for example, there is a new organization that has been existing for about ten years, known as the Oregon Water Trust. And what the Oregon Water Trust does is to go to farmers or other water users and actually purchase their water and put that water back into the river in order to improve the environment of the river in question. So, water markets not only help achieve efficiency or encourage people to conserve water. They also help actively protect the environment.

Next, water markets help reduce the cost of water shortages. In California, we frequently encounter serious draughts and, when we have such draughts, one of the questions is how you can allocate the limited amount of water that you have for a short period of time. The fairest way is to cut everybody back proportionally; it is the easiest way of dealing with draughts, but that is frequently very inefficient. There are some farmers who might have

permanent crops such as nut trees or fruit trees that need all of the water they were using before. Or there might also be industries that might need as much water as they were using before.

What water markets do is to permit those water users to go out and acquire water during periods of shortage so that they continue to operate in the way they were operating before. And then, the final benefit of water markets that we defend in the US is that it allows a rapid reallocation of water in response to changing needs. One of the things that we are beginning to recognize is that, as a result of global climate change, we, at least in California and most of the rest of the world, are going to be confronted with far more extreme weather conditions. We will be encountering many more periods of draughts and many more floods. One of the things that we will need to do as weather changes rapidly is to reallocate water in response to those weather changes. We can try to do that together with the government, but such a way of dealing with it is very time-consuming and constitutes a difficult process. Markets can reallocate water very quickly during periods of changing conditions.

So, those are the various benefits that we found for market transfers, and the people who study market transfers in the US have been able to show that these are indeed very valuable benefits. But there are also various concerns about water markets. One is the potential impact on a local community by taking some of the water that the local community has been using and selling it or leasing it to another community. Many of the water transfers in the US have been from agricultural communities to municipal communities. And one of the concerns that the agricultural communities have is, to the degree the water is transferred from the agricultural region to the municipal region, what happens to the farm workers in the area. Will there be as much farm work as before, now that there is less water available to irrigate all the crops? What happens to the people who sell goods and services to the farmers, the seller of tractors for example? Will they have as much business if water is transferred out of the agricultural area to the municipal area?

Our second concern relates to the potential environmental impacts. Because of the fact that when farmers, for example, use water they do not consume all of it, some of that water will be back into a river or stream and, to the degree that we permit water to be transferred from one region to another, what will be the impact on local water resources of such a transfer? And then, the third concern that some people raise is, should we be allocating water according to the economic value that people have for that particular water? I think this is a very important point. I am a firm believer that there is a human right to water resources and it is important that we separate out two things. First of all, all of us should have a human right to the minimum amount of water that we need in order to continue to live well. That amount of water should not be subject to markets, but in most of the cases in which we use water markets, we are not talking about taking water from people who need it

in order to survive, or live. Instead, we are talking about reallocating water such as from a farm, in one case, to a municipality, on the other case. We are talking about water that is being used very much as an economic good.

For me, finally in connection with water transfer, I turn to the question of international transfers. So far, I have been talking about water transfers within one country or region. Is there something different about water markets? We start thinking about transferring water from one nation to another nation. And the question here is: "is water different from other resources for purposes of international trade; is there something about water which makes it different from oil, natural gas, other energy resources and other goods and services"?

Let me suggest several ways in which water might be different. Water is essential for human health and, therefore, there is a human right to it, a basic quantity of water, what means a minimum that each nation should be able and must be able to control of the water within its borders in order to meet the basic needs of its population. We should be only talking about international water markets to the degree of those basic needs that have already been met.

Second of all, as I mentioned a moment ago, water is part of our natural landscape and, to the degree that you think about marketing water from one country to another, that can have implications for the environment of the first country. As a result, again, even if we believe that we should have international water markets, we need to permit this country to protect its natural environment and not permit transfers to the degree that will endanger the natural environment.

A third problem with international water markets is what I will call the "stickiness" of water markets. One of the things that we have found in the US is that, to the degree that you transfer water from one region to another, so for example in California, where we transfer water from the Colorado river, which is in the eastern portion of California, to Los Angeles, which is on the western pacific coast. Once that water is transferred, it never comes back. Los Angeles will never give up that water. We found that the water markets are very sticky. The water just does not move back and forth, once it moves, it tends to stay there. That suggests, in the international level again, that we might not want to permit permanent transfers of water. Instead, we might want to think of international water markets only as a short-term transfer of water. If there is one nation that temporarily needs some more water, because of a draught for example, that might be a situation where the international market might be very valuable. But we might hesitate before we permit one nation to permanently purchase water from another nation.

What about international trade agreements and international water transfers? Right now, as I read international law, there is no requirement under the General Agreement on Trade and Tariffs or any other international agreement that one country has to open up its

water to users in another nation. The question under international trade agreements such as the General Agreement on Trade and Tariffs is whether or not water is a good, because the international agreement only applies to goods.

So, as long as a nation does not have its own internal water market, where people can buy and sell water, their water is probably not a "good" for the purposes of the General Agreement on Trade and Tariffs. If, on the other hand, a country does open up a local water market and permits water to be traded internally, then it might become a good, and then it might need to actually open up the water market and make it available for users in other nations. Even if the country does open up its water market, article 20 of the General Agreement on Trade and Tariffs, with which probably you are familiar, provides a variety of exceptions that should permit that particular country to limit the international trade of water in ways which are protective of human health and the environment. So, I actually think that the international trade agreements right now are, for purposes of these international water transfers, probably fairly-well designed; that they do not require countries to open up their border with their water to another nation, but they can, if they do it internally; if they permit internal water markets, then those have to be subject to various protections of the human health and conservation of resources.

Let me turn very quickly to the second topic, which is privatization, a very controversial issue. Here we deal with the same three topics I had before. First of all, what the value of privatization is, what the concerns or problems are, and what international trade agreements say right now about privatization.

First of all, it is very important, when we talk about privatization, to differentiate between the types of privatization. Privatization is frequently used to describe a variety of different types of involvements of private companies in the supply of water. First of all, privatization can sometimes be the actual sale or lease of the water system, of the municipal water system to a private company. It can also be used to describe a franchise operation, where you have the local municipality continuing to own its water system. They simply hire a private company to help manage the water system. And finally, the word privatization can describe a broad series of public-private partnerships in which the municipality still runs its own water company, but brings in private companies to help on various matters to help in achieving water quality standards or to help in building a new facility. These different types of privatization are different in problems that they raise and their level of controversy, which is very important to differentiate. Why, however, would we even bring a private company into helping run the local municipal water supply system? The major arguments that remain are, first of all, the expertise that a private company can sometimes bring to the supply of water. In the United States, in those situations where we have privatized most of our local water supply systems, the reason has frequently been because the system is having a hard time meeting the water quality standards, and a private company was able to come in and raise the quality of water. Second of all, private companies frequently have access to capital markets,

they could provide valuable funds with which to expand and improve the water supply system. And finally, sometimes large private companies have economies of scale to actually buy various products, build various things cheaper than municipalities because they are doing that in a large number of locations. Those are the benefits that can sometimes arise. So far, we have actually a number of significant problems with which we are concerned.

The first problem is what we call in the United States the principle H problem. I am sorry, that is probably not something that translates particularly well. But the concept here is that the private company does not have the exact same interests as the municipality and so, when the municipality turns their water system over to a private company to have the private company run it, the question becomes: "will the private company really be looking out for the broad set of public interest"? And, fortunately, one of the things we have found internationally is that there is a lot of municipalities negotiating contracts with private companies that have not done a good. They have not set up correct sentences needed to make sure that the private company runs the system in a way which benefits the public, nor do they have the type of oversight over the private company needed to make sure that the private company actually protects the public. The second thing we are now learning is that municipalities can frequently achieve all of the aims they are looking for in privatization simply by organizing the way in which they operate. I understand here, for example, in Porto Alegre, that instead of privatizing your municipal water supply system, you reorganized it in a way which has been highly successful, and there are more and more examples of that worldwide. My own bottom-line looking at these various problems is that we should not be turning most of our water resources over to private companies but, instead, involving private companies simply to bring in expertise on a case-by-case basis. So, what does international trade agreements say about privatization? The major international agreement here is the General Agreement on Trade in Services, or as it is know, the GATS; there is a lot of ambiguity in the General Agreement on Trade in Services as to whether or not it requires countries to open up their water supply system to private companies. A good argument that can be made is that water supply systems are exempted entirely of the provisions of the General Agreement on Trade in Services. In particular, the General Agreement on Trade in Services says that it does not cover services, supply and exercise of governmental authority and, although there is a question held that it is misinterpreted, I think that the best interpretation is that water supply systems are services supplying the exercise of governmental authority and, therefore, not subject to the its provisions. That should be the reason. To the degree of privatization, it is a good argument that private companies can convince the municipalities. It is not something that international trade agreements should impose on the municipalities. If, however, the General Agreement on Trade in Services does apply to municipal water services, there is still a variety of protections. First of all, unlike the General Agreement on Trade and Tariffs, which applies to products or goods, countries are free to exempt individual services from the General Agreement on Trade in Services, and most nations have chosen not to include water services under the various services that are regulated by it. Second of all, there is again a variety of special exceptions to protect the environment

and to protect human health that apply to the General Agreement on Trade in Services that should permit most nations to decide to continue to run their municipal water services on public basis if that is what they prefer. So, my bottom-line here is that water is a crucial resource. It is different from the other resources around, there is a value to having the market involved in the allocation of management of water just like the market can play a valuable role elsewhere. But we have to be very careful about the role that the market plays here. Therefore, we cannot take international trade agreements designed for automobiles and various other products and simply apply them unthinkingly to water resources.

Thank you very much.