

...implementar u  
...de una cultura del encuentro en tot  
...derechos universales. La ciencia, la cultura, la  
...contribuir al logro de sociedades más justas, so  
...comprometidas con el cuidado de la casa común.  
Francisco

PONENCIAS

SEMINARIO DERECHO HUMANO AL AGUA

# PONENCIAS

## SEMINARIO DERECHO HUMANO AL AGUA

23 al 24 de febrero de 2017  
Casina Pio IV | Ciudad del Vaticano



# PONENCIAS

SEMINARIO

# DERECHO HUMANO AL AGUA

APORTES Y PERSPECTIVAS INTERDISCIPLINARIAS SOBRE  
LA CENTRALIDAD DE LAS POLÍTICAS PÚBLICAS EN LA  
GESTIÓN DE LOS SERVICIOS DE AGUA Y SANEAMIENTO

23 y 24 de febrero de 2017

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CÁTEDRA DEL DIÁLOGO Y  
LA CULTURA  
DEL  
ENCUENTRO





“En realidad, el acceso al agua potable y segura es un derecho humano básico, fundamental y universal, porque determina la sobrevivencia de las personas, y, por lo tanto, es condición para el ejercicio de los demás derechos humanos.”

*(Laudato Si', 30)*

## EJE 2

# LA CENTRALIDAD DE LAS POLÍTICAS PÚBLICAS EN LA CONSTRUCCIÓN DEL BIEN COMÚN



## **Panel 4**

# **GEOPOLÍTICA DEL AGUA: EL IMPACTO DEL CAMBIO CLIMÁTICO EN LOS SISTEMAS HÍDRICOS. ABORDAJES Y ESTRATEGIAS**

# HUMAN RIGHT TO WATER: AN INTERDISCIPLINARY FOCUS AND CONTRIBUTIONS ON THE CENTRAL ROLE OF PUBLIC POLICIES IN WATER AND SANITATION MANAGEMENT

**GREGORY KOCH<sup>39</sup>**

## ABSTRACT

### Challenges, Tough Choices, and Solutions for Transboundary Waters in a Changing Climate

A unique and comprehensive perspective of water challenges, drinking water supply, watershed protection efforts, and policy engagement, across almost all countries, will be leveraged to highlight existing challenges in transboundary water management. Importantly, the factors of climate change, transfers of virtual water, and the Nexus of food, energy, and water security will be outlined, with specific examples, to reach a central observation: the rate of change in water supply and quality, in the context of siloed planning and execution across the Nexus, presents the fundamental complicating factor to sustainable water management, especially in transboundary settings.

Valuation of water services, along with nascent valuation methodologies for ecosystem services related to water, will be used to highlight examples of solutions completed and underway in many locations. Though such 'hydroeconomic' analyses and market views are not "sufficiently attentive to obligations stemming from human dignity," a distinction between water the *substance* and water *services* will be shown to help shift perspectives toward bending demand for water to meet supply versus increasing supply to meet demands.

## SPEECH

Thank you for the opportunity to join these discussions. I am truly honored to be invited to contribute.

I am here independent of my role at The Coca-Cola Company but I will give some insight into that role as it helps explain the perspective I have on this topic.

I direct water stewardship across our global business system. We have thousands of active operations in manufacturing and agricultural ingredient supply points. And these span all but

<sup>39</sup> He joined The Coca-Cola Company in 1996. He has nearly 30 years of experience and is a globally recognized leader in water resource management. Currently, he leads Coca-Cola's global water stewardship program across some 1,000 facilities and numerous agricultural supply regions, focusing on: water use efficiency and wastewater management in production facilities; watershed protection and climate change adaptation; community water and sanitation supply initiatives; supply chain water management, global awareness and action, and water policy engagement. He collaborates with bottling partners, governments, NGOs, aid/development agencies and communities throughout the Coca-Cola system.

two countries (Cuba and North Korea).

Beyond the many water stressors we all face and the dependence our business has on water, our business model is, by far, the largest driver for our engagement on water. We manufacture and distribute our products to adjacent marketplaces. We are not an export business. That is, our ability to exist and grow is fully dependent on the health and well-being of surrounding communities, our consumer base, and the watersheds we share.

As such, we have nearly 4,000 initiatives underway to help address not just our direct water use (that is our 'footprint') but also contribute to solving community water problems, particularly the access to safe drinking water and the dignity of sanitation facilities, as well as the conservation and protection of natural systems to regulate water (collectively our 'handprint').

While necessary, these efforts pale in the face of the challenge in most places. Therefore, and most relevant to this panel then is our extensive advocacy and direct engagement on water policy reform (call that our 'blueprint') with local and national governments.

With this perspective and experience I will first make a few observations about the scope of the challenge in addressing geo-political conflicts both today and in a changing climate.

Number 1: When you engage most governments on water security issues, you will certainly find gaps in their understanding of the problems, the effectiveness of the existing policies they have to manage water resources, and the capacity to implement these policies. Capacity is critical and consists not only of sufficient staffing and their ability, and sufficient funding, but, critically, the proper level of authority. Too often, water resource management is fragmented and even subservient to other policies and ministries.

Number 2: These challenges are daunting but can and are being addressed in many places as awareness and response to water risks continue to rise. However, I have repeatedly observed that trying to solve water problems cannot succeed if the focus is only on water. Most nations, perhaps the planet, are approaching or already at finite limits: how much carbon we can put in the atmosphere, how much water we can take from the environment in a given time and place, how much we can pollute, even how much debt can be sustained. This stress of limits has intertwined water, energy and food security to a high degree of complexity. A good decision to address a challenge in one area can create a new problem in one or both of the other areas.

An example is the government subsidy and mandate in North America for biofuels. A noble pursuit for cleaner forms of energy and some measure of energy independence. With this policy, maize grown to be converted to ethanol went from single digit percentage to over 50%. This energy security initiative has in turn has led to a historic rise in the cost of maize (a food security issue), and water and land stress even in water-abundant places. This dilemma exists almost everywhere.

The Nexus presents a multivariant problem. If we take a basic algebraic viewpoint we quickly see that you need three equations to solve for three unknowns.

Number 3: We are not organized to solve for three unknowns. This begins in higher education when we train water engineers, agronomists, and energy experts. It carries on into how we organize government ministries – water, agriculture, energy. Corporations are similarly organized. Even most of civil society (NGOs) are largely single topic focused. The embedded hierarchies, politics and vested interests in such organization poses a complex and complicated scenario.

Number 4: All of these challenges are amplified when you step into a transboundary water setting. My fellow panelists have presented the many legal and practical issues but recognize

that transboundary water challenges are not only surface- and ground-water at a border. Many of the water stresses I face stem from the virtual transfer of water. I have seen firsthand large tracts of land in southern Africa under cultivation of crops for export to China. This virtual transfer is also evident in the export of cotton and other crops from northwest India, olive production in northern Jordan, but also in significant groundwater stress in the American southwest driven by long-term contracts for the cultivation and export of alfalfa and related products to China and the Gulf States.

All four of these observations certainly present a unique predicament. That predicament is negatively amplified by a changing climate that is today having real impacts but also has much unpredictability. We and others have taken the various IPCC scenarios to produce algorithms that model change.

The changes are driven by a warming climate along with growing populations and greater development and even incomes. These models, when layered on top of the four observations I presented, lead to my conclusion that it is not just the present day complexities that we must focus on, nor only the projected ultimate changed state predicted once populations, economic growth and climate change stabilize (if they even can). It is the rate of change that presents the greatest challenge.

I've presented a daunting situation. Is there a solution? I cannot posit that I have the solution and certainly not that there is only one solution.

What I will conclude with are specific examples supporting my belief that water valuation presents a powerful frame and motivator for positive action toward sustainable solutions. In fact, this frame is the basis -the business case- of over US\$2 billion investment by my business toward such solutions.

I am speaking of the valuation of water services from the perspective of public infrastructure to deliver safe drinking water and provide sanitation. I am also referring to the valuation of ecosystem services related to water.

Importantly, let me preface my remarks by stating such valuation is not sufficient when considering respect, protection and fulfilment of human rights to water and sanitation. I quote Pope Francis where in *Laudato Si'* he argues that "*Economic valuations of water must be subordinated to frameworks of human rights.*" I also quote Dr. Christiane Peppard, from her essay *Hydrology, Theology, and Laudato Si'* "*markets are not sufficiently attentive to fundamental obligations stemming from human dignity.*"

I agree.

However, the initial provision and upkeep of infrastructure to provide and sustain water and sanitation rights does benefit, in my experience, from a pragmatic measure of market valuation. Similarly, the market valuation of ecosystem services is powerful to justify and motivate watershed protection measures with such healthy watersheds providing the supplies of water for people. Finally, a hydro-economic analysis across the Nexus of food, water, and energy security has proven to be a transformative basis for government action and policy changes.

First: Let me examine the commodification of water and the human right to water. I find distinguishing between water the *substance* and water services, quite helpful.

I recall a trip several years ago to D.C. I went for a run and ended up in the Jefferson Memorial. I read the inscriptions in the memorial regarding inalienable rights and thought of water. Water the substance almost transcends rights. Rights exists to the living and life only exists, as we know it, with water. With that perspective, I thought of the access to safe drinking water.



If you speak only of water you conflate the substance with the service. This conflation makes discussions on how to fund necessary infrastructure almost impossible. How can you charge for something that falls from the sky? And, yes, societies can decide that its provision in a form available and suitable for drinking is also a right. However, that does not excuse a society from investing the capital and running costs to capture, store, treat, and distribute water. These are economic goods that do cost money (labor, infrastructure, chemicals, and energy). I don't mean to say that these should not be provided to the poor at reasonable costs or even free, subsidized by others in society. It does mean that you need to separate the discussion of the substance from the service.

We pay so much for other services without ever thinking of the substance. What do you pay for when you buy electricity, or gasoline, or cellular services? Electrons, fuel, or bars on your phone? No, you buy security/warmth/convenience, mobility, and connectivity. Here it's the service we understand and value – this needs to happen with water.

Next: We are part of a broad coalition of economists, industry, academia and civil society that are working to develop methodologies to value nature –the Natural Capital Coalition – with the hope that such valuation will move business and policy decisions to go beyond basic pricing of land/real estate and intuitive and aesthetic appreciation of nature to one that allows for the cost: benefit analysis of what natural system provide.

Our focus is mostly on the ecosystem services that nature provides and we are already extensively applying the concepts. In some 50 'water funds' in Latin America and Africa, we are partnering with local governments, communities and industry to establish transparent public/private financing schemes that identify and protect source water areas with demonstrated benefits to downstream water quantity, quality, and flood control. Where land use changes are required the fund also provides compensation to mainly rural farmers and communities. In effect, this approach extends the responsibility of the municipal water services provider to their ultimate supply source and allows for the entire community and economy to play a role in its preservation.

Recently, I co-authored a paper that explores the integration of freshwater conservation and the provision of safe drinking water and sanitation. I am now working to implement that in several locations knowing the interdependence of both bodies of work and the benefits they mutually derive.

Last example: The final example is also the most significant. We are part of an organization called the 2030 Water Resources Group, a mix of private sector, civil society, multi-lateral development banks and foreign assistance agencies of a few European nations. We have been successful in 12 countries in engaging the prime minister/president and finance minister as initial sponsors to bridge the gaps between often conflicting ministries across the Nexus.

The approach uses water as a lens, the denominator in the equation so to speak, in conducting hydro-economic analyses across the economy and compared to the government's own growth and development plans. 2030 is in the moniker as the forecast date to accomplish reform and this of course aligns with the SDG timeframe. The approach identifies gaps in water supplies needed to meet current and projected shortfalls in attaining security. The true power is the formation of extensive, multi-stakeholder platforms to socialize and agree on data, explore and even pilot potential solutions, and ultimately let all have a voice in trade-offs and the often tough choices that need to be made to close gaps and grow sustainably.

All of this takes time but is designed to give government policy makers what they need to make a decision: they need to understand the facts and choices and know that their constituency does as well. They also need to have solutions proven. Most importantly, they

need time and engagement for all to face realities of the choices to be made. In the end, it falls to governments to transform their policy.

We have already seen success in Peru with their first groundwater tariff on industry, large-scale irrigation water conveyance system improvements in South Africa, and wide-spread irrigation efficiency investments in India.

I will close with a shift in thinking that I feel is necessary.

Most debates or negotiations I enter related to water start with the premise, on one or both sides of the table, of more – how can one user, conservationist, country, farmer, industry get more water for their use. Thus the discussion begins in a state of conflict with solutions driven by someone getting less and/or supplies of water being increased to meet higher demands.

This concept of 'more' is prevalent throughout most of society. What politician does not speak of more development, more jobs? What investor does not expect more profit? What industry does not want to grow their business?

In a Nexus conference in Bonn, Germany in November 2011, plenary debate was heated discussing how to increase, achieve more. A lone voice, a man from the Philippines, asked why we are so focused on financial and development well-being and not on human and natural well-being.

Growth cannot be infinite and many places will face difficult choices. I hope this dialogue leads to solutions that shift the discussion to bending demand to meet supplies and a contribution to well-being.

Thank you.