American Association for the Advancement of Science
Science and Human Rights Coalition Meeting

*The Human Right to Water*
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Human Right to Water & Sanitation: the UN framework and health, its realization in LAC, and research & development challenges

Mauricio Pardón, PhD
pardonm@paho.org
Human Right To Water & Sanitation

“Access to safe water is a fundamental human need and, therefore, a basic human right. Contaminated water jeopardizes both the physical and social health of all people. It is an affront to human dignity.”

Kofi Annan

Since 1948, the Universal Declaration of Human Rights to the 2010 & 2016 UN General Assembly resolutions.
- Equity – Inclusion – Transparency – Progressive realization –

Sustainable Development Goals 2015-2030
- the realization of human rights and equity -

- The realization of the HR to W&S: universal access and quality
- The role of knowledge and innovation
- The HR to W&S and the Right to Health
The Right to Health

“The right to health is dependent on, and contributes to, the realization of many other human rights ...”

Office of the United Nations High Commissioner for Human Rights
World Health Organization

“Links between the right to health and the right to water

Ill health is associated with the ingestion of or contact with unsafe water, lack of clean water (linked to inadequate hygiene), lack of sanitation, and poor management of water resources and systems, including in agriculture. Most diarrhoeal disease in the world is attributable to unsafe water, sanitation and hygiene ...”
Realizing the Human Right to Water & Sanitation in LAC: universal access and quality

USD 12.5 Bn/year sustained over 20 years; 0.3% GDP of LAC

- Infrastructure
- Governance
- Innovation

Source: CAF, Development Bank of Latin America (2012)
The role of knowledge and innovation

• Much has been accomplished since the late 1800’s
  – water supplies and sewerage
  – water & wastewater treatment
  – analytical tools and risk assessment

  The privatization attempt of the 1990’s in LAC: the quest for capital & knowledge

• Safe water and adequate sanitation for all: a multistakeholder challenge
  – technical, societal, behavioral, economic
  – e.g. on-site sanitation
  – e.g. needs for change in policies, practices, regulation

• With respect to health
  – water testing methods: anytime, anywhere, by anyone
  – reduction of virus & protozoan parasite pathogens in water
  – virus & protozoan indicators for wastewater treatment and reclamation processes
  – antimicrobial resistance of enteric bacteria in water and wastewater
In an International Seminar on Advances in Slow Sand Filtration held in London (November 1988), Mr. P Toms, a Senior Manager of the Thames Water Authority, confided to the audience the secret for the operation of SSF "passed down from father to son in the Metropolitan Water Board." This carefully assumed secret was adequate communication between scientists, engineers, planners, and operators. Clearly, this type of communication has been nonexistent in small community SSF programmes, a fact which is responsible to a great extent for their failure.
Additional slides for Q&A
“If we could ever competitively—at a cheap rate—get fresh water from salt water, that would be in the long-range interests of humanity, which would really dwarf any other scientific accomplishment.”

President John F. Kennedy, 1961