



CONVENTION ON WETLANDS

(Ramsar, Iran, 1971)

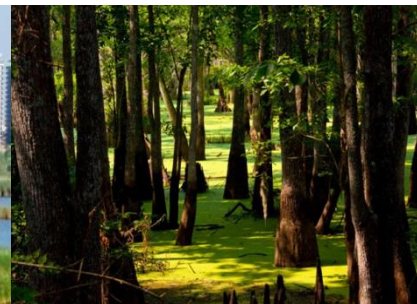
# Introduction and Session Overview

## Stream 4 : Water and Cities

Dr. Christopher Briggs

Secretary General of Convention on Wetlands (Ramsar,1971)

Saturday, 15 November 2014



# Water: a precious resource



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- Global demands for food, energy, and shelter put unprecedented pressure on the planet. Water is at the heart of this crisis.
- Less than 3% of the world's water is fresh – the rest is saltwater
  - Most of this is frozen
  - Of the available freshwater, the largest share can be found in aquifers which are being depleted through human activity
- At a very basic level, humans require 20-50 litres of water per day
  - Absolute minimum for basic needs – still out of reach for 1.1 billion
  - UK average in 2012 was 150 litres per person/day, rising by 1% annually since 1930
- 60% of all usable water is found in six countries
  - USA, Canada, Brazil, China, Indonesia and Colombia



# Water: a precious resource



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- 85% of the human population lives on the “dry side” of the world
- Enormous water input required to produce some common goods:
  - One pair of jeans: 2,900 gallons
  - One ton of steel: 75,000 gallons
  - One cotton shirt: 700 gallons
  - One plastic water bottle: twice as much water as it actually holds!



# Water security is big business - and a big concern for business



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- Global water treatment and delivery business worth US\$ 550 billion
  - Annual growth rate of 3.5%
- In last three years, top companies spent US\$ 84 billion to secure water supplies and increase efficiency
- Percentage of global FTSE 500 that see water as major risk to business:
  - 2014: 70%
  - 2011: 59%
- Water seen as one of top three risks to Economy since 2011



# The world is moving to cities – along with sustainable development concerns



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- Today (2014) some 54 % of the world's population live in urban areas
  - 1950: 30%
  - 2050: 66%
- Urbanization varies by region:
  - Northern America: 82%
  - Latin America and the Caribbean: 80%
  - Europe: 73%
  - Asia: 48%
  - Africa: 40%
- By 2030, world will have 41 mega-cities over 10 million inhabitants
- Sustainable development concerns increasingly focussed on cities



# Patterns in urban water stress



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- National Geographic has identified these patterns in water development in water-stressed cities.
  1. Exhausted local surface and groundwater supplies, then
  2. Imported water from other rivers and aquifers, then
  3. Turned to recycling of wastewater or stormwater, or desalination of either seawater or brackish groundwater
- This typical water development pattern poses significant problems from a sustainability perspective:
  - Negative ecological impacts
  - Negative social impacts
  - Lacking cost effectiveness



# Mechanisms to unleash transformation



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- Urban water conservation
  - Installing low-water plumbing fixtures
  - Fixing leaks in water distribution lines
- Reduce agricultural water use
  - Reducing soil and reservoir evaporation
  - Changing crop types; increasing fallow area and restoring degraded lands
  - 15% increase in efficiency in agricultural use would make more water available than all the water consumed in cities today
- Activate private sector funding models
- Work with natural infrastructure to ease water crisis



# The Ramsar Convention



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- Intergovernmental treaty on wetlands
  - Provides the framework for the conservation and wise use
  - 168 Parties (member countries); first modern global environmental agreement
  - Named after Ramsar in Iran, where the Convention was adopted
- Members commit to:
  - Wise use of all their wetlands
  - Designate suitable wetlands for the list of Wetlands of International Importance (the “Ramsar List”)
    - Currently 2,186 Sites covering 208.4 million hectares (slightly larger than Mexico)
  - Cooperate on transboundary wetland systems and shared species





# Nature-based water security in urban areas: wetland examples



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- Nakivubo Swamp (Kampala, Uganda)
  - Protected wetland area filters sewage and industrial effluents for free
  - Treatment plant with same function would cost \$2 million per year
- East Kolkata Marshes (Kolkata, India)
  - Treat part of the sewage from the metropolitan area of 14 million+ population
  - Provide livelihoods to 20,000 people in fishing and wetland-related agriculture
- uMngeni Ecological Infrastructure Project (Durban, South Africa)
  - Durban area faces major water security challenges
  - uMngeni catchment faces invasive plants, intensive agriculture, industry
  - Partnership of 36 agencies and NGOs- Three pilot projects launched at signing:
  - Informs investment in restoration of degraded land throughout South Africa



# In this session we will . . .



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- Present great examples of transformation from Water Fund schemes linking upstream providers of water and wetland service and multiple water users in Cities
  - Alejandro Calvache (The Nature Conservancy)
- Highlight increasing corporate engagement in watershed conservation and restoration
  - Fernando Veiga (The Nature Conservancy)
- Explore the incorporation of watershed conservation costs into water tariffs, making the end user a conscious and active part of the solution
  - Lila Gil (The Nature Conservancy)





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# Enjoy!

