





Welcome to

Session 1: Stream Opening Human health and wellbeing depends on nature











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Wetlands: Source of health and well-being

Dr. Christopher Briggs,
Secretary General Convention on Wetlands (Ramsar 1971)
14th November 2014



Wetlands are at the heart of our physical, spiritual and mental well-being



- Physically water makes up 60% of our body
- People seek out water when they relax, for reflection, and for sport
- Wetlands are among the most beautiful places on Earth, and have inspired artists, travellers, poets, and photographers for generations
- The first civilizations took place near wetlands (Nile, Indus, Yangtze)
- Coburg Peninsula was the world's first Ramsar site
 - Traditional Aboriginal owners still conduct an active ceremonial life based on the role of wetlands and water
 - And undertake semi-traditional hunting and gathering



Wetlands are everywhere



- Broad definition: land areas that are flooded with water, either seasonally or permanently
- Inland wetland types:
 - Marshes, ponds, lakes, fens, rivers, flood plains and swamps
- Coastal wetland types:
 - o Mangroves, saltwater marshes, estuaries, lagoons even coral reefs
- Man-made wetlands include fish ponds, saltpans, rice paddies
- Range in size from less than one hectare to the Pantanal in Brazil,
 Bolivia, and Paraguay; three times the size of Ireland



Wetlands provide fresh water for us all



- Less than 3% of the world's water is fresh the rest is saltwater
 - Most of this is frozen
 - o Of the available freshwater, the largest share can be found in aquifers
- At a very basic level, humans require 20-50 litres of water per day
 - Minimum for drinking, cooking and cleaning needs
- Almost two billion people in Asia and 380 million EU residents depend on groundwater for their water supply
- Wetlands help purify and replenish the surface water and sub-surface aquifers humanity depends on for all its needs



Wetlands purify our water & filter waste



- Plants from wetlands help lessen water pollution
 - Absorb some harmful fertilizers and pesticides
 - Retain some heavy metals and toxins from industry
- Example: Nakivubo Swamp (Kampala, Uganda)
 - Filters sewage and industrial effluents for free
 - Treatment plant would cost \$2 million per year
- Example: Cypress swamps (Florida, USA)
 - o Remove 98% of nitrogen and 97% of phosphorous, preventing contamination of the groundwater



Wetlands purify our air and enhance resilience to climate change



- Peatlands alone cover an estimated 3% of the world's land area, but they hold 30% of all carbon stored on land
 - o Twice the amount stored in all the world's forests!
- In the face of rising sea levels, coastal wetlands reduce the impact of typhoons and tsunamis
 - Saltmarshes, mangroves act as buffers; their roots bind shoreline and resist erosion
 - o Coastal wetlands increase resilience to the impacts of climate change
- Wet grasslands and peatlands act as natural sponges
 - Absorb rainfall, create wide surface pools, ease flooding in river basins
 - This same storage capacity also safeguards against drought



Wetlands feed humanity



- Rice, grown in wetland paddies, is the staple diet of nearly three billion people
 - 20% of the world's nutritional intake
 - o 70% of groundwater extracted is used for irrigation
- Average human consumes 19kg of fish each year
 - Much higher per capita consumption in Asia
- Two-thirds of all commercial fish types depend on coastal wetlands at some point in their lives
 - Breeding and spawning grounds
 - Mangroves and estuaries especially important



Wetlands provide sustainable livelihoods



(Ramsar, Iran, 1971)

- 62 million people earn their living directly from fishing and aquaculture
 - o Including their families, more than 660 million people are dependent on fisheries and fishing for survival
- Sustainably managed wetlands provide:
 - Timber for building
 - Vegetable oil
 - Medicinal plants
 - Stems and leaves for weaving
 - Fodder for animals





Wetland provide medicinal products



- Wetlands plants and animals have been used medicinally for millennia
 - o Today we use 50,000-70,000 species of plants medicinally
 - o Leaves, roots, flowers all have use- as well as forms of algae
- Wetland leeches (Hirundo medicinalis) are still used to treat many conditions
 - o Abscesses, painful joints, glaucoma, venous diseases, thrombosis
- 70-80% of people worldwide still rely chiefly on traditional medicines
- In developed world, many wetland plants are also in demand:
 - White willow: original source of salicylic acid precursor of aspirin
 - Bogbean: effectively treats digestive ailments
 - Labrador tea: folk remedy for many ailments; also acts as mosquito repellent



Wetlands and water-related diseases: an ecological view is needed



- Wetlands have often been drained to reduce water borne diseases
 - Seen as an effective way to fight malaria, cholera, Japanese encephalitis, etc.
 - This approach can backfire, depriving populations of clean, healthy water, reducing water filtering, and flood protection
- A fuller understanding of the wetlands role in ecology points to a better approach:
 - Prioritize clean water and good sanitation
 - Use wetlands wisely in filtering pollutants and in sustainable food production
 - Better regulate dams, irrigation and water drainage systems



Wetlands are part of our consciousness



- Convention (1971) states: wetlands constitute a resource of great economic, cultural, scientific and recreational value, the loss of which would be irreplaceable....'
- People seek out water when they relax: on holiday, in reflection, for sport
- Wetlands are among the most beautiful places on Earth, and have inspired artists, travellers, poets and photographers for generations
- Ramsar Culture Network established in early 2000s to strengthen the connection between people and wetlands
- 2015 onwards, 'Wetlands, Culture and Livelihoods' a Global Priority recommended and supported by the Secretariat



Wetlands and spirituality: Tonle Sap



- Tonle Sap is one of the most productive freshwater ecosystems in the world, with 350k tons of fish each year. It includes two Ramsar Sites
- 75% of the regional population's protein is derived from the lake's fish
- Fish carvings on the Buddhist temple of Angkor Wat indicate that key role the lake has played for millenia
- The lake is facing enormous pressures, due to dam construction upstream on the Mekong, climate change, and removal of forest that is important for fish hatcheries.
- A festival, called Bon Om Touk,, commemorates the end of the rainy season and the reversal of flow of the Tonle Sap River.





(Ramsar, Iran, 1971)

Questions?





Thank you!

Dr. Christopher Briggs

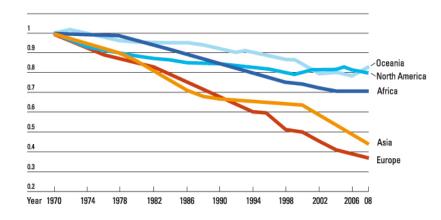
Secretary General of the Ramsar Convention on Wetlands



A future without wetlands?



- 64 % of the world's wetlands have disappeared since 1900
 - o Higher in some regions, esp. Asia
- WWF Living Planet Index:
 - freshwater species populations declined by 76% between 1970 and 2010
- Wetland Extent Index
 - Sampling of 1000+ wetland sites globally between 1970 and 2008
 - o Average loss in site area: 40%





Not just wetland loss: degradation



- Major changes in land use, specifically increases in:
 - Agriculture
 - Grazing animals
 - Other harvesting such as logging
- Water diversion through dams, dikes and canalization
- Infrastructure development, particularly in river valleys and coastal areas
- Air and water pollution and excess nutrients
- Ramsar Sites also affected
 - An estimated 700 Wetlands of International Importance show serious degradation



How can the trend be reversed?



(Ramsar, Iran, 1971)

- Make policies that consider wetlands carefully
 - o Understanding of ecosystem services that wetlands provide
 - Integrate into land use planning
- Use all remaining wetland sites wisely
 - Meet human needs while sustaining biodiversity and other wetland services
- Restore wetlands that have been degraded
- Develop financing sources for wetlands conservation
- Educate others about the benefits of wetlands



The Ramsar Convention



Intergovernmental treaty on wetlands

- o Provides the framework for the conservation and wise use
- o 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")
- Cooperate on transboundary wetland systems and shared species



Ramsar proposed Strategic Plan 2016-2021: Aligning goals to reverse loss and degradation



(Ramsar, Iran, 1971)

Goal 1

Address the drivers of wetland loss and degradation

- Halve the rate of wetland loss by 2021
- Integrate wetlands into sectoral policies/plans
- Increased water efficiency in agriculture
- Orient investment to wetland restoration

Goal 2

Effective conservation and management of the Ramsar Sites Network

- Ramsar Site information updated
- Reach total of 2500 sites and 250 million hectares

Goal 3

Wise use of all wetlands through partnerships

- Contracting Parties adopt wise use in wetlands and water management
- Balance extraction and in-flow in major river basins
- Additional funding flow to support wetlands conservation

Goal 4

Raise awareness & involvement in wetlands

- Make best practice guidance available to policymakers and practitioners
- Enhanced public participation in wetlands









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Contribute to the Promise of Sydney at www.worldparkscongress.org/about/promise_of_sydney









Coming up in Stream 3

Hall 3B1 Home Room, 1.30pm-3pm

Session 2: Perspectives on health, Current practices & future opportunities for park managers

Charley Room, 1.30-3pm

Session 4: Valuing diverse knowledge paradigms

Hordern Room, 1.30-3pm

Session 6: Contribution of protected areas to the achievement of related Sustainable Development Goals

