

# Human health and wetlands interactions



Issues for healthy wetlands and healthy people in the future



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CONVENTION ON WETLANDS  
CONVENTION SUR LES ZONES HUMIDES  
CONVENCIÓN SOBRE LOS HUMEDALES  
(Ramsar, Iran, 1971)



# "Healthy Wetlands, Healthy People"

- COP10 theme
- Great slogan – catchy and conveys a vivid social message
- But not unproblematic: what is wetland health, and who are these 'healthy people'?



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# What is health?



- *Health is a complete state of physical, mental and social well-being and not merely the absence of disease and infirmity.*

World Health Organization (WHO)  
Constitution



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# Wetlands and human well-being



- Health is a component of human well-being (MA, 2005)
- Healthy wetlands support human well-being through the provision of ecosystem services: food security; water security; “insurance” value through the formation of natural buffers; and spiritual, recreational, educational value, etc.



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# Benefits of wetlands to human health



<b>Food</b>	People in Cambodia obtain about 60–80% of their total animal protein from the fishery in Tonle Sap; in Malawi, 70–75% of the total animal protein for both urban and rural low-income families comes from inland fisheries.
<b>Storm buffer</b>	Coastal wetlands, coastal river floodplains, and coastal vegetation, reduce the impacts of floodwaters produced by coastal storm events.





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# Examples of wetland ecosystem-related consequences for human health



<b>Health issues</b>	<b>Health effects</b>	<b>Relevant wetland ecosystem services as determinants of health</b>
Nutrition	Malnutrition, stunting, obesity, diabetes	Water, food provision Soil, sediment and nutrient retention
Infection	Water-borne diseases Vector-borne diseases (+emerging, re-emerging)	Drinking water Biological control agents Systemic consequences

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- A thick, wavy orange line that spans across the top of the slide.
- Over 1 billion people lack access to safe water supplies; 2.6 billion people lack adequate sanitation. This has led to widespread microbial contamination of drinking water.

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- A thick, orange wavy line that spans across the top of the slide, starting from the left edge and ending towards the center.
- Water-associated infectious diseases claim up to 3.2 million lives each year, approximately 6% of all deaths globally. The burden of disease from inadequate water, sanitation and hygiene totals 1.7 million deaths and the loss of more than 54 million healthy life years.

# Economic values and incentives



- Disruption and/or loss of wetland ecosystem functions impose huge economic costs.
- Application of economic valuation techniques have yielded useful economic estimates of the contribution of wetlands towards health objectives to guide sound decision-making.

# Global trends affecting human health



- Many of the current and continuing pressures on wetlands and driving trends in human health occur largely through issues of changing (often decreasing) water availability and quality.



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# Global trends affecting human health



- Climate change has exacerbated, and is expected to continue to exacerbate, health impacts in relation to wetlands and water, both by affecting the wetlands themselves, and by affecting disease burdens.



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# What is wetland health?



- ‘wetland health’ is a negotiated outcome involving the wetland, water and health sectors, community and others, in a collective determination of desirability\* and limits of acceptable change.

\*in two ways: a) evaluative approach to health, b) desirable behaviour in and around wetlands



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# Responses and interventions



- Wetland management actions can result in positive or negative consequences for human health.



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# Responses and interventions



- Wetland managers need to engage actively with the health sector at the local and national levels.
- Many of the possible response options for addressing ecosystem change and human well-being lie primarily outside the direct control of the wetland sector, or even the health sector.



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## Responses and interventions



- One valuable strategy to achieve cross-sectoral action may lie in using human disease burden data as a bio-indicator to help target and prioritise wetland remediation.



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## Responses and interventions



- Wetland managers need to be involved in building coping capacity in human communities, and to recognize that these responses will need to operate at local, national, or regional levels.



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# Responses and interventions



- Where interventions or responses involve tradeoffs, it is important to understand the consequences of taking one path in preference to another.



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# Responses and interventions



- Managing wetland ecosystem services to improve human health will help achieve the Millennium Development Goals.



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# Recommendations



- Identify and implement interventions that benefit both wetland ecosystem health and human health *concurrently*.
- In the first instance target wetlands that are high on the priority list for *both* their conservation value *and* their human health benefit.



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# Recommendations



- Encourage strengthened collaboration and seek new partnerships between the sectors concerned with wetland conservation, water, health, food security and poverty reduction within and between governments, non-government organizations, and the private sector.



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# Recommendations



- Make the interrelationship between wetland ecosystems and human health a key component of national and international policies, plans and strategies.



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## Recommendations



- When making decisions on co-managing wetlands and human health issues, take into account current understanding of climate change-induced increases in health and disease risk, and maintain the capacity of wetlands to adapt to climate change and continue to provide their ecosystem services.



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# Recommendations



- Wetland authorities, working with their health sector counterparts and others, should seek to:
- i) be vigilant for the emergence or re-emergence of wetland-linked diseases;
  - ii) act preventively and proactively in relation to such diseases; and
  - iii) develop scientifically-based responses taking into account current good practices, where instances of such diseases are identified.



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# Recommendations



- Dedicate resources to building capacity for more integrated approaches to wetland and water management and health, including the application of local and traditional knowledge.



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# Healthy Wetlands, Healthy People



- Adopting this theme therefore has multiple and beneficial messages:
  - It allows wetland ecosystem assessment to enhance our understanding of ecological character;
  - It embraces ecosystem services more fully;
  - It recognises the centrality of the link between wetlands and human well-being; and
  - It ensures a systems approach to wetland management.



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