



A diverse and  
sustainable world



IUCN  
World  
Conservation  
Congress  
Barcelona 2008

## **Presentation**

**Presentation from the Water Pavilion  
at the IUCN World Conservation Congress, Barcelona 2008  
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CONVENTION ON WETLANDS  
CONVENCIÓN SOBRE LAS ZONAS HÚMEDAS  
CONVENCIÓN SOBRE LOS HUMEDALES  
(Ramsar, Iran, 1971)

# Water & wetlands – key issues & future challenges:

## Ramsar Convention COP10 and beyond

**Dr Nick Davidson**

Deputy Secretary General

Ramsar Convention on Wetlands

**IUCN WCC Water Pavilion,**

Barcelona, 7 October 2008

# Overview

- Current state of the world's wetlands and water resources
  - Millennium Ecosystem Assessment (MA)
- The Ramsar Convention and water
- Can we move towards a more sustainable future for wetlands and water?
- Ramsar COP10 – Oct/Nov 2008 – key issues and decisions



CONVENTION ON WETLANDS  
OF INTERNATIONAL IMPORTANCE  
Ramsar, Iran, 1971

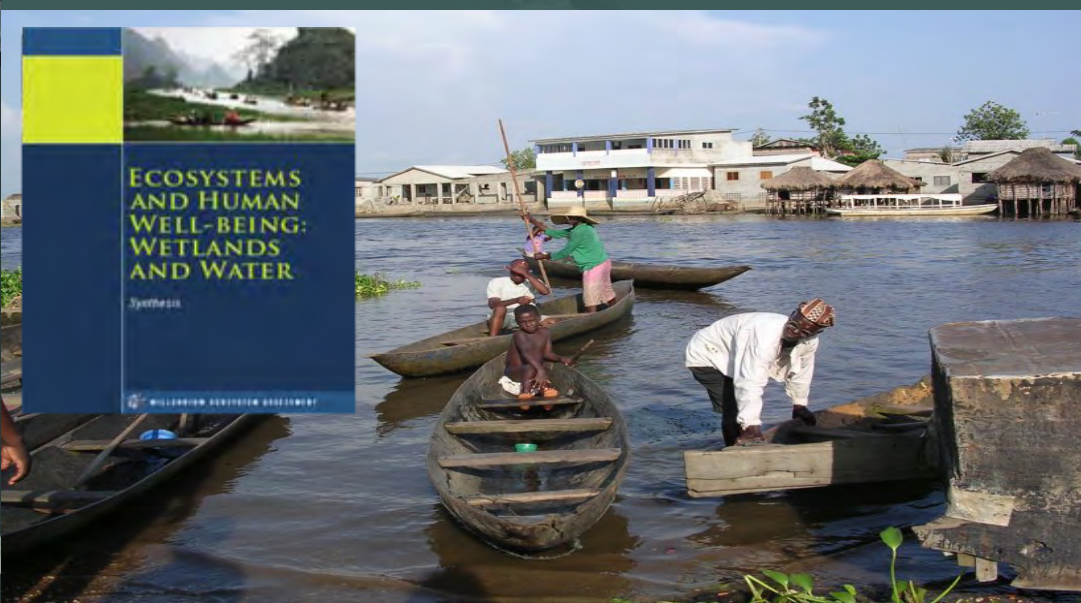
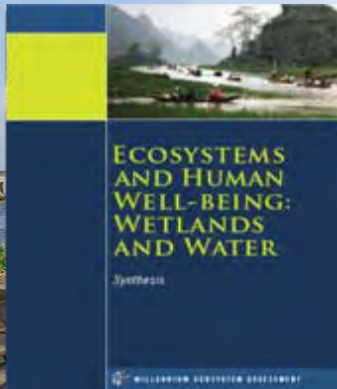


# What's the problem?

- Ramsar Convention on Wetlands, developed in 1960s:
  - because of **concerns over destruction of wetlands** and its impact on waterbirds
- Millennium Ecosystem Assessment (MA) in 2005:
  - “**degradation and loss of wetlands (both inland and coastal) is continuing more rapidly than for other ecosystems**”
- The problem remains....
  - **Economic development and land-use change often higher priority than ecosystem maintenance**



# Key findings of the MA Ramsar Synthesis Report



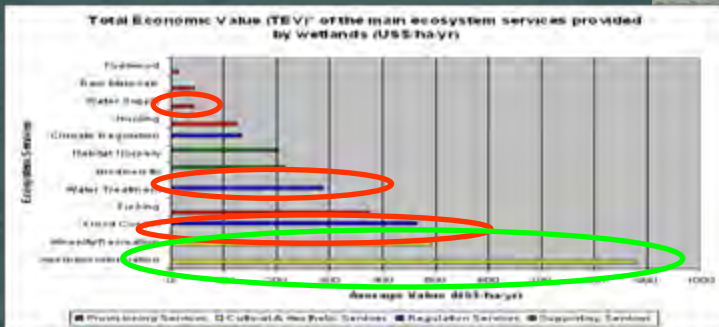
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OF INTERNATIONAL IMPORTANCE  
Ramsar, Iran, 1971





# Services provided by wetlands

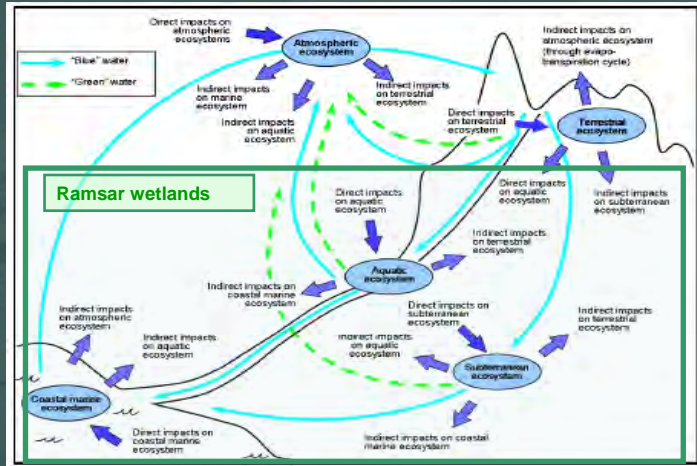
- Inland wetlands are extremely important for people
- Services delivered by wetlands – arguably **US\$ 14 trillion annually**
  - Major value of hydrological services
  - many other service values
  - **Major amenity & aesthetic value**



# Services provided by wetlands

➤ Global hydrological cycle is fundamental to wetlands

- “No water: No wetlands”



# Services provided by wetlands

➤ Despite their high economic value

- wetlands have long been (and are still being) viewed by decision-makers as being of little value
- So still little priority given to maintaining their wise use – and invaluable services

	<i>Value per year (US\$)</i>
<b>Lake Chilwa, Malawi</b>	<b>21 million</b>
<b>River Danube floodplain</b>	<b>886 million</b>
<b>Dutch Wadden Sea</b>	<b>2329 million</b>

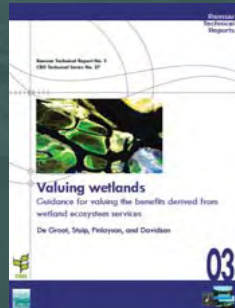
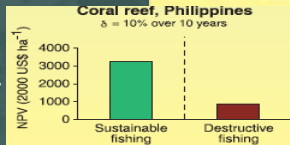
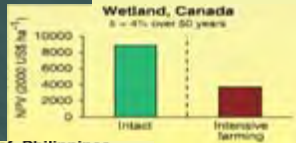
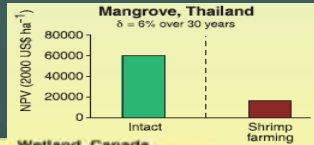


INTERNATIONAL TREATY ON WETLANDS  
CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE  
Ramsar, 1971



# Costs of converting natural wetlands

- Valuation studies: conversion from natural wetland to other land-use – often loss of value and services
- But, major need for more valuations of wetlands – to better inform decision-making
- Ramsar & CBD recognise need – joint publication of methodological guidance in 2006



INTERNATIONAL CONVENTION ON WETLANDS  
CONVENTION ON THE PROTECTION AND ENHANCEMENT OF MARINE COASTAL ECOSYSTEMS  
Wetland, 1971



# Services provided by wetlands

- Wetlands significantly influence the functioning of the hydrological cycle
  - and supply of water to people, and the uses they make of it (e.g. irrigation, energy, transport & drinking)
- almost all of the world's consumption of freshwater is drawn directly or indirectly from wetlands
  - **“No wetlands:**
  - **No water”**



# Services provided by wetlands



- Without wetlands we lose their ecosystem services
  - **Yet many wetland systems are deteriorating and this puts their services at risk**
- Inland and coastal wetlands (& their biodiversity) are being lost at a faster rate than terrestrial systems
  - **Freshwater wetlands and mangroves: 2.5% loss per year**
- Clearance, & drainage for **agriculture** has been the principal cause of inland wetland loss worldwide
- Expanding **human use of fresh water** - less water being available to maintain the ecological character of many inland water systems
- Global focus on “**provisioning** services” (e.g. agricultural production) leading to loss of “**regulating**” and “**supporting**” services

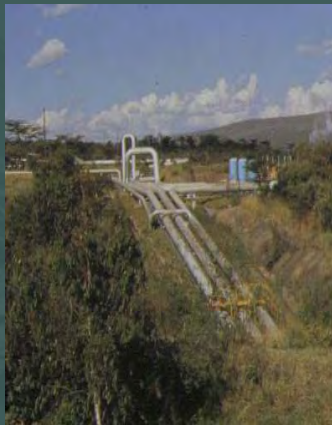


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CONVENTION ON WETLANDS OF INTERNATIONAL IMPORTANCE  
Ramsar, 1971



# Wetlands & human well-being

- Wetlands are crucially important to people, but we have created major problems...
- Assessment of 227 major river basins worldwide showed that:
  - 37% were strongly affected by fragmentation and altered flows,
  - 23% moderately affected, and only
  - 40% unaffected



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CONVENTION ON WETLANDS  
Ramsar, Iran, 1971



# Wetlands & human well-being

- **>50%** of the world's 500 major rivers are heavily polluted or are drying in lower reaches
  - The well-being of the many millions of people depending on these rivers has been affected, or is under increasing threat
- **At least 20%** of the world's population do not have access to safe drinking water, and
- **40%** live in water-scarce river basins



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OF INTERNATIONAL IMPORTANCE  
Ramsar, Iran, 1971



## GEO-4 and water

- MA's stark messages reinforced by GEO-4:
- c 70% available water is already taken by irrigation
  - Meeting MDG on hunger will mean doubling food production by 2050
  - Freshwater is declining:
  - but by 2025 water used predicted to rise by 50% in developing countries; 18% in developed world

**“The escalating burden of water demand will become intolerable in water-scarce countries”**



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Ramsar, Iran, 1971



# Wetlands & human well-being

- Declining ecosystem services from wetlands threaten well-being of individuals, local communities, entire states and the global community
  - especially for poorer people in less developed countries
  - often most heavily dependent on wetlands for their livelihoods
- **Climate change** already making these problems worse and harder to tackle



# MA: wetlands and the Millennium Development Goals

➤ Human health is closely linked to safe drinking water and sanitation...  
but

➤ Focussing sectorally only on (e.g.):

- Climate mitigation or
- MDG delivery (food; sanitation etc.):

➤ Wetlands will continue to deteriorate

➤ further jeopardising their capacity to continue to deliver their services to people



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CONVENTION ON BIODIVERSITY  
WORLD HERITAGE CONVENTION

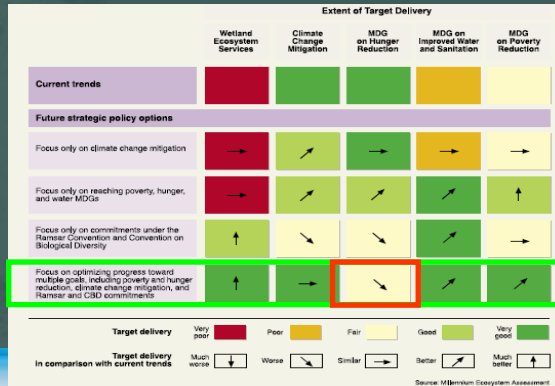


# MA: Maximising ecosystem sustainability

➤ Instead: focusing, with trade-offs, on **maintaining sustainable wetland ecosystems**

➤ can significantly contribute to poverty reduction, improved sanitation etc. MDGs.. But:

- **Maintaining/increasing food production, especially with a changing climate, remains the big challenge for wetlands**



INTERNATIONAL CONVENTION ON WETLANDS  
 ESTABLISHED BY THE TREATY OF RAMSAR, 2 NOVEMBER 1971  
 Ramsar, Iran, 1971



# The Ramsar Convention on Wetlands

- What is the Convention ... and how can it help?
- Oldest of the modern global environmental intergovernmental agreements
  - Established 1971 (in Ramsar City, I.R. of Iran)



Photo: E. Kujken

USSR A. FIROUZ (chair) S-AFRICA M.F.MÖRZER BRUIJNS G.MATTHEWS E. CARP



INTERNATIONAL CONFERENCE ON THE CONSERVATION OF WETLANDS AND WATERFOWL RAMSAR



# The Ramsar Convention on Wetlands

➤ addresses all wetlands - **from the mountains to the sea**

- **Inland wetlands:**

- marshes, lakes, rivers, peatlands, forested wetlands

- **Coastal and near-shore marine systems:**

- Coral reefs, mangroves, estuaries, etc. - to 6 m water depth

- **Human-made wetlands:**

- Reservoirs, rice padi etc.



CONVENTION ON WETLANDS  
INTERNATIONAL TREATY  
1971



# The Ramsar Convention on Wetlands

- 158 Contracting Parties (member states), committed to:
- “the conservation and wise use of all wetlands through local, regional and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world”



CONVENTION ON WETLANDS  
INTERNATIONAL TREATY  
CONVENTION ON WETLANDS  
INTERNATIONAL TREATY



# The Ramsar Convention on Wetlands

➤ Contracting Parties implement the Convention through “three pillars”:

- The “**Wise use**” (= sustainable use) of all wetlands
- Designation and management of **Wetlands of International Importance** (Ramsar sites)
  - 1771 sites covering 161 million hectares
  - Largest global protected areas network
  - Major contribution to on-the-ground delivery of CBD protected areas programme
- **International co-operation**
  - shared river basins, transboundary wetlands, flyway networks for migratory waterbirds, and sharing of information and expertise



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OF INTERNATIONAL IMPORTANCE  
Ramsar, Iran, 1971



# Ramsar and the CBD

- Since CBD COP3, Ramsar: lead implementation partner for CBD on wetlands
- **Ramsar implementation = CBD implementation**
  - **CBD focus on inland waters' collaboration, but wetlands a unifying theme across all CBD ecosystem PoWs**
    - **drylands, agricultural systems, forests, mountains, coastal/marine, etc.**



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OF INTERNATIONAL IMPORTANCE  
Ramsar, 1971



# The Ramsar Convention and water

- Ramsar recognized as the only global environmental treaty dealing with integrated management of important water-related ecosystems and water allocation
- Provides mechanisms for applying integrated ecosystem-based approaches at all scales
- Since 1996 the Convention has taken an increasing focus on water and ecosystem issues...



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INTERNATIONAL TREATY  
CONVENTION ON WETLANDS  
Wetland, 1971



# The Ramsar Convention and water

- In Brisbane in 1996, Ramsar Contracting Parties adopted Resolution VI.23 entitled “**Ramsar and water**”. This:
- recognized the “important hydrological functions of wetlands, including groundwater recharge, water quality improvement and flood alleviation, and the **inextricable link between water resources and wetlands**”
  - recognised freshwater quality and quantity as vital for maintaining **coastal and marine ecosystem services** – e.g. fisheries
  - ... and set out a range of actions to allow countries to address the **looming problems of water scarcity**, deteriorating water quality and related breakdown of wetland ecosystems



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1971



# The Ramsar Convention and water

- Since then, the Convention has adopted a major suite of water management-related implementation guidance for countries
- Included in 17 *Ramsar Wise Use Handbooks* (3<sup>rd</sup> edition, 2007)
- CD-ROM and Ramsar Website

[www.ramsar.org](http://www.ramsar.org)



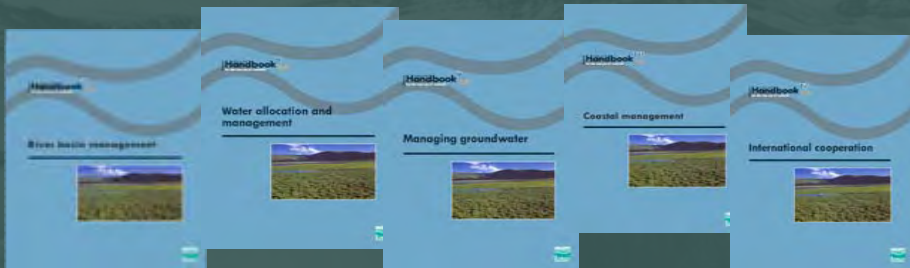
Handbook

Water-related guidance



# Ramsar's water-related guidance covers:

- River basin management
- Water allocation and management for maintaining wetland ecosystems
- Groundwater management
- Agriculture, water and wetlands
- Integrated Coastal Zone Management
- International cooperation (incl. shared water resources)

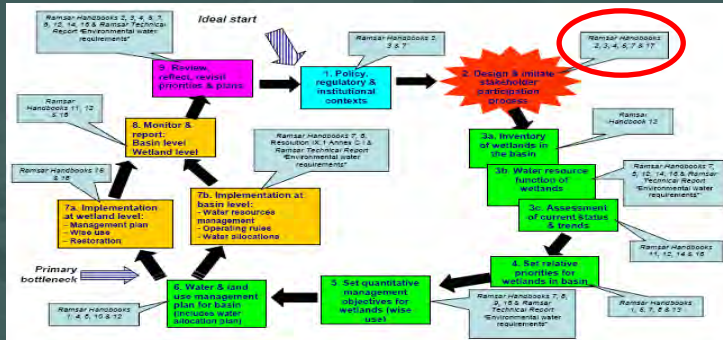


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INTERNATIONAL COOPERATION  
WETLANDS FOR PEOPLE  
Wetland Day 2010



# River basin management guidance:

- Incorporates a “Critical Path” approach to water & wetland management planning and implementation



- Shows stages in a holistic approach to achieving ecosystem-based management, and
- The current Ramsar guidances (Handbooks) to use at each stage

## Further Ramsar guidance

➤ The Convention's Scientific & Technical Review Panel (STRP) is preparing further water-related guidance for Ramsar COP10 (2008) including:

- Further “Critical Path” guidance, on environmental water requirements and CEPA tools & stakeholder involvement
- **Ramsar Technical Reports** on:
  - Wetlands and water quality
  - Environmental water requirement methodologies for estuaries, rivers, and non-riverine wetlands
  - Wetlands, water and agriculture (report from Comprehensive Assessment of water for agriculture – IWMI)
  - Framework for wetlands and agriculture guidance (GAWI) – joint with FAO & Wageningen, NL



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# Securing sustainable water & wetlands – where are we now?

## ➤ **We know what we need to do ...**

- Maintain wetland ecosystems for their key water services, and
- Restore degraded wetlands to reinstate their key services to people

## ➤ **We know how to do it ...**

- Much knowledge and work on environmental water requirements and restoring degraded systems
- Governmental and intergovernmental (Ramsar) processes to support responses

## ➤ **But ... inland and coastal wetlands and their services continue to be degraded and lost faster than even other ecosystems (MA)**

- So what is preventing our achieving sustainability of water use and wetlands??



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Ramsar, Iran, 1971



# Securing water for wetland service maintenance – the challenges?

## ➤ The challenges are many:

- Water demands still increasing rather than decreasing
- Water allocation and wetland management decisions still being made sectorally rather than cross-sectorally
  - the powerful sectors or stakeholders benefit – and often the poorest and most at risk continue lose out – especially when water is scarce
  - not consistent with delivery of poverty reduction strategies?
- Water allocations continue often being made in absence of knowledge of how much water is available, or how much is needed to maintain wetlands for their water
- Short-term reactive decisions rather than decisions based on long-term strategies and sustainability



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# Securing water for wetland service maintenance – challenges

- How can we manage and restore wetlands with a now rapidly changing and more extreme climate?
- IPCC: climate change effects felt mainly through water
  - Too much water (or at the wrong time) in some basins, prolonged drought and too little water in others

“Water, water, every where, Nor any drop to drink”

Taylor Coleridge *The Rime of the Ancient Mariner*



# Securing sustainable water & wetlands – where are we now?

## ➤ Some promising responses??

- Securing “environmental flows”, payments for ecosystem water,
- establishing legislative frameworks, introducing “caps” on water allocations

## ➤ Attractive, but really just ‘fixes’:

- Even with agreed “environmental flows”, ecosystems (wetlands) still the loser when water scarce for direct use by people
- Water laws: still adversarial - ecosystems must demonstrate and ‘justify’ their needs against other demands

## ➤ Are we digging ourselves into an ever deeper (dry) hole by promoting these approaches as solutions, rather than at best interim steps?

## ➤ ...when we continue to allocate more water than is available, from many basins



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# The way forwards?

- Since conserving (and restoring) wetlands is essential for maintaining their vital services for human well-being and poverty reduction...
- Water resources management and spatial planning schemes need to be based on an **integrated ecosystem-based approach**
    - But is “Integrated water resource/river basin management” **really integrated** across sectors??
  - Better encouragement and empowerment to **local people and communities** to value and maintain their healthy wetlands for water
  - More high level understanding and commitment is needed, to secure and implement **new forms of water and land-use governance** based on this paradigm
    - But changing embedded governance approaches after so long being largely demand-driven is a major challenge



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## The way forwards?

“Water management is one of the most pressing crises we face. To lessen the seesaw between drought and flood, we need a fundamental shift in attitudes – to use water carefully and slow its journey from sky to sea”

Kim Wilkie (landscape architect)

The Independent (UK), 30 August 2007



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CONVENTION OF 1971 UNDER THE AUSPICES OF  
THE UNITED NATIONS EDUCATIONAL, SCIENTIFIC  
AND CULTURAL ORGANIZATION



# Ramsar COP10

## 10<sup>th</sup> Conference of the Contracting Parties

- Hosted by government of Republic of Korea
- Changwon, 28 October – 4 November 2008
- COP10 theme:

“Healthy Wetlands, Healthy People”

- Major discussion on importance of wetlands and water for peoples’ and ecosystems’ health



# COP10: an increasing focus on interlinked issues of water, climate change, human health, livelihoods, poverty reduction & wetlands



- In addition to new Strategic Plan, CEPA programme, budget, and policy & procedural decisions etc ...
- STRP draft decisions (Resolutions) and range of major new technical implementation guidances ...



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# COPI0 key technical Resolutions & guidances

- Future implementation of scientific and technical aspects of the Convention
  - STRP's priority work for next cycle
  - Major foci on climate change adaptation & mitigation, human health, water management, restoration & rehabilitation etc.
- A Framework for Ramsar data and information needs
  - For site, national and international scales
  - Further work on Ramsar site data and information needs to follow
- Describing the ecological character of wetlands, and data needs and formats for core inventory
  - Fills major gap in available guidance for monitoring & management of wetlands, incl Ramsar sites
- A framework for processes of detecting, reporting and responding to change in wetland ecological character



# COPI0 key technical Resolutions & guidances

- Wetlands and river basin management: consolidated scientific and technical guidance
  - Consolidates COP7 and COP9 adopted guidance as a key tool for Ramsar working with water managers
  - Builds on “critical path approach” adopted by COP9
- Wetlands and human health and well-being
  - Speaks to COP theme of “Healthy wetlands, healthy people”
  - Major STRP review report in preparation: degraded wetlands increase risks to human health
- Climate change and wetlands
  - Much new information and activity since COP8 Resolution (2002)
  - Focus on key role of wetlands in both adaptation and mitigation
  - Many intact wetlands are major carbon stores – maintaining and restoring them crucial for national climate strategies



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# COPI0 key technical Resolutions & guidances

## ➤ Wetlands and “biofuels”

- Focus on potential increased threat to wetlands from agricultural and land-use change

## ➤ Wetlands and extractive industries

- Rapidly emerging and challenging issue for Ramsar Parties in some regions e.g. Africa

## ➤ Wetlands and urbanization

- Increasing global urbanisation and its implications for wetlands

## ➤ Wetlands and poverty reduction

- Follow-up to COP9 Resolution



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# The “Changwon Declaration”

- The “Changwon Declaration on human well-being and wetlands”
  - **Not** “just another conference declaration”
  - Set of “Key messages for decision-makers” – an agenda for future action
  - **from Ramsar to** other sectors whose business depends on, or affects, wetlands
- Speaks to the interlocked issues of water, climate change, human health, livelihoods and poverty reduction
  - All subject of COP10 attention under “healthy wetlands, healthy people” theme
  - Written in simple language, for wide understanding – not in Ramsar Convention jargon
- Designed to be taken out by everyone and used in other processes and for a
  - from local to national to global scales



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# The “Changwon Declaration” – Key Messages

## Water and wetlands

- **There is an urgent need to change water governance. Continuing with “business as usual” is not an option**
  - Our increasing demand for, and over-use of, water jeopardizes human well-being and the environment
  - There is often not enough water to meet our direct human needs and to maintain the wetlands we need
  - Climate change is increasing uncertainty in water management and making it more difficult to close the gap between water demand and supply



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# The “Changwon Declaration” – Key messages

## Water and wetlands

### ➤ To close this “water gap”, we need to:

- use our available water more efficiently;
- stop our wetlands from becoming degraded or lost
- wisely manage our wetlands ... wetlands are the only source of water we have



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# The “Changwon Declaration” – Key messages

## Climate change and wetlands

- Wetlands are vital parts of the natural infrastructure we need for mitigating and adapting to climate change
- Governments need to include water and wetland management in effective strategies for mitigating and adapting to climate change at national level
  - Water and well-functioning wetlands play a key role in responding to climate change and in regulating natural climatic processes
- Developing opportunities should be seized for collaboration to share understanding and harmonise analyses,
  - especially in relation to wetlands/water/climate linkages



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# The “Changwon Declaration” – Key messages

## People’s livelihoods and wetlands

- Action is needed to maintain the benefits provided by wetlands for economic development and the livelihoods of poor people
- Wise use, management and restoration of wetlands should be used to build opportunities for improving people’s livelihoods
- Wetland/livelihoods linkages need to be better analysed and documented
- Sustainable wetland management should be supported by indigenous and traditional knowledge, recognition of cultural identities associated with wetlands, stewardship promoted by economic incentives, and diversification of the support base for livelihoods



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Wetlands for People



# The “Changwon Declaration” – Key messages

## People’s health and wetlands

- Interrelationships between wetland ecosystems and human health should be a key component of national and international policies, plans and strategies
- The health and wetland sectors need to co-manage the links between wetland ecological character<sup>4</sup> and human health



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# The “Changwon Declaration” – Key messages

## Land use, land-use change and wetland biodiversity declines

- Decisions on land-use change must integrate adequate knowledge of the range of benefits, and their values, that wetlands provide for people and biodiversity.
- Decision-making should, wherever possible, give priority to safeguarding naturally-functioning wetlands
- More actions are required to address the root causes of the loss of biodiversity and to reverse these losses



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# The “Changwon Declaration” – Key messages

***What types of cross-cutting mechanisms are most helpful in delivering all this?***

- Planning, decision-making, finance and economics
- Management and sharing of knowledge



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**COP10**  
**Changwon, RoK**  
**28 October –**  
**4 November**





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