

# Data sources

It should be noted that while the links given below for each factsheet were valid at the time this list was prepared (November 2009), the internet is a rapidly changing environment and some links will inevitably cease functioning over time. If you encounter a broken link, please advise the Ramsar Secretariat ([ramsar@ramsar.org](mailto:ramsar@ramsar.org)) and we will do our best to restore it or provide an alternative.

## Introductory sheet

For UN population estimate:

<http://www.un.org/esa/population>

For United Nations Millennium Ecosystem Assessment, Current States & Trends:

<http://www.millenniumassessment.org/en/Condition.aspx>

For the economic value of wetlands:

Costanza, R., R. d'Arge, R. de Groot, S. Farber, M. Grasso, B. Hannon, K. Limburg, S. Naeem, R.V. O'Neill, J. Paruelo, R.G. Raskin, P. Sutton & M. van den Belt. 1997. The value of the world's ecosystem services and natural capital. *Nature* 387: 253-260.

For the economic worth of conserving wetlands:

Balmford, A., A Bruner, P. Cooper, R. Constanza, S. Farber, R.E. Green, M. Jenkins, P. Jefferiss, V. Jessamy, J. Madden, K. Munro, N Myers, S. Naeem, J Paavola, M. Rayment, S. Rosendo, J. Roughgarden, K. Trumper & R.K. Turner. 2002. Economic Reasons for Conserving Wild Nature. *Science* 297: 950-953.

For the storm protection services of coastal wetlands:

Constanza, R., O. Pérez-Maqueo, M.L. Martinez, P. Sutton, S.J. Anderson & K. Mulder. 2008. The Value of Coastal Wetlands for Hurricane Protection. *Ambio* 37, pp 241-248.

For references on valuation techniques:

De Groot, R.S., Stuij, M.A.M., Finlayson, C.M. & Davidson, N. 2006. *Valuing wet-lands: guidance for valuing the benefits derived from wetland ecosystem services*, Ramsar Technical Report No. 3/CBD Technical Series No. 27. [http://www.ramsar.org/pdf/lib/lib\\_rtr03.pdf](http://www.ramsar.org/pdf/lib/lib_rtr03.pdf)

Springate-Baginski, O., Allen, D. and Darwall, W.R.T. (eds) 2009. *An Integrated Wetland Assessment Toolkit: A guide to good practice*.

[http://cmsdata.iucn.org/downloads/iwa\\_toolkit\\_lowres.pdf](http://cmsdata.iucn.org/downloads/iwa_toolkit_lowres.pdf)

## Factsheet 1: Flood control

For peatland hydrology and carbon release:

<http://rsta.royalsocietypublishing.org/content/363/1837/2891.full>

For US Rocky Mountain National Park:

USEPA Factsheet: *Wetlands: Protecting Life and Property from Flooding*; downloadable from <http://www.epa.gov/owow/wetlands/flood.html>

For Yangtze River:

[http://www.sciencedirect.com/science?\\_ob=ArticleURL&\\_udi=B6V93-448Y47S-5&\\_user=10&\\_rdoc=1&\\_fmt=&\\_orig=search&\\_sort=d&view=c&\\_acct=C000050221&\\_version=1&\\_urlVersion=0&\\_userid=10&md5=dbceef1e9b8635ff64f07a9e515f7246](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V93-448Y47S-5&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=dbceef1e9b8635ff64f07a9e515f7246)

For Hurricane Katrina:

Multiple, but see for example:

<http://news.bbc.co.uk/1/hi/world/americas/4201060.stm>

For sustainable flood management:

[http://209.85.229.132/search?q=cache:\\_Qzja5s2WHUJ:www.scotlink.org/pdf/LINKBriefingonFlooding2007MD.pdf+Insh+Marshes+flood+control&cd=2&hl=en&ct=clnk&gl=uk](http://209.85.229.132/search?q=cache:_Qzja5s2WHUJ:www.scotlink.org/pdf/LINKBriefingonFlooding2007MD.pdf+Insh+Marshes+flood+control&cd=2&hl=en&ct=clnk&gl=uk) >>>

For economic values of Danube floodplains:

<http://www.faqs.org/abstracts/Environmental-issues/Economic-values-of-Danube-floodplains-Economic-evaluation-of-a-regionalization-program-for-solid-was.html>

## **Factsheet 2: Groundwater replenishment**

For Škocjan Caves, Slovenia:

<http://www.park-skocjanske-jame.si/eng>

For Green Swamp, Florida:

<http://florida.sierraclub.org/greenswamp.asp>

For Hadejia-Nguru wetlands, Nigeria:

<http://www3.interscience.wiley.com/journal/119009485/abstract>

For a global assessment of scale and significance of groundwater extraction:

<http://209.85.229.132/search?q=cache:KmKF92u471oJ:www.iwmi.cgiar.org/assessment/Water%2520for%2520Food%2520Water%2520for%2520Life/Chapters/Chapter%252010%2520Groundwater.pdf+global+demand+for+groundwater&cd=1&hl=en&ct=clnk&gl=uk>

For groundwater study at Messara Valley, Greece:

[http://209.85.229.132/search?q=cache:\\_gSkk2Z5O1YJ:meetingorganizer.copernicus.org/EGU2009/EGU2009-9351-1.pdf+Messara+Valley+water+table&cd=4&hl=en&ct=clnk&gl=uk](http://209.85.229.132/search?q=cache:_gSkk2Z5O1YJ:meetingorganizer.copernicus.org/EGU2009/EGU2009-9351-1.pdf+Messara+Valley+water+table&cd=4&hl=en&ct=clnk&gl=uk)

For report on 'China's evaporating wetlands':

<http://www.chinadialogue.net/article/show/single/en/2346-China-s-evaporating-wetlands>

For Garet El Haouaria wetland, Tunisia:

Hollis, G. E. 1990. Environmental impacts of development on wetlands in arid and semi-arid lands. *Hydrological Sciences Journal* 35(4): 411-428.

## **Factsheet 3: Shoreline stabilisation & storm protection**

For the Asian tsunami statistics:

<http://www.reliefweb.int/rw/rwb.nsf/db900SID/DPAS-6KCEBU?OpenDocument>

For Hurricane Katrina statistics:

<http://www.reliefweb.int/rwarchive/rwb.nsf/db900sid/RURI-6P8QEB?OpenDocument>

For 200 million people statistic and reducing risks of disaster posed by climate change:

<http://www.un.org/climatechange/pdfs/bali/isdr-bali07-20.pdf>

For restoration assessments following Hurricane Katrina:

<http://www.sciencemag.org/cgi/content/abstract/315/5819/1679> and  
[http://www.clear.lsu.edu/needs\\_in\\_louisiana](http://www.clear.lsu.edu/needs_in_louisiana)

For tsunami mangroves statistics:

<http://news.mongabay.com/2005/1118-wwf.html>

For 'Mangroves for the Future' website:

<http://www.mangrovesforthefuture.org>

For the economic values of coral reefs, mangroves and seagrasses:

[http://www.icriforum.org/library/Economic\\_values\\_global\\_compilation.pdf](http://www.icriforum.org/library/Economic_values_global_compilation.pdf)

For the benefits of managed realignment:

<http://www.coastalfutures.org.uk/benefits.html>

## **Factsheet 4: Sediment & nutrient retention and export**

For papyrus production:

<http://www.springerlink.com/content/f4847rq6854w184v>

For the International Commission for the Protection of the Rhine:

[http://www.iksr.org/fileadmin/user\\_upload/Dokumente\\_en/Brochures/image-englisch-lay.pdf](http://www.iksr.org/fileadmin/user_upload/Dokumente_en/Brochures/image-englisch-lay.pdf)

For Ebro Delta:

[http://www.panda.org/what\\_we\\_do/footprint/water/dams\\_initiative/news/?14770/A-turnaround-in-water-management](http://www.panda.org/what_we_do/footprint/water/dams_initiative/news/?14770/A-turnaround-in-water-management)



For degradation of Indus Delta mangroves in Pakistan:

<http://www.naun.org/journals/geology/ijgeo-06.pdf>

For constructed wetland systems in the UK:

<http://www.constructedwetland.co.uk/database.html>

For the Yangtze River Basin/Dongting Lake:

[http://www.wwfchina.org/english/sub\\_loca.php?loca=11&sub=94](http://www.wwfchina.org/english/sub_loca.php?loca=11&sub=94)

## **Factsheet 5: Water purification**

For heavy metals taken up by plants:

<http://www.apms.org/japm/vol42/v42p60.pdf>

For water hyacinth impact on Lake Victoria:

<http://earthobservatory.nasa.gov/IOTD/view.php?id=7426>

For Kolkata (Calcutta) sewage disposal:

<http://business.outlookindia.com/article.aspx?101614>

For Chesapeake Bay oyster management and restoration:

<http://www.chesapeakebay.net/oystersmanagement.aspx?menuitem=14770>

For New York investment in wastewater treatment:

<http://ice.ucdavis.edu/node/133>

For Everglades nutrient removal project:

<http://www.agen.ufl.edu/~klc/wetlands/abtew.htm>

For pollution of the Guadiamar River, Spain:

[http://assets.wwf.es/downloads/report\\_on\\_the\\_aznalcollar\\_mine\\_2004\\_def.pdf](http://assets.wwf.es/downloads/report_on_the_aznalcollar_mine_2004_def.pdf)

For a report on the cyanide Spill at Baia Mare, Romania:

<http://www.rec.org/REC/Publications/CyanideSpill/ENGCyanide.pdf>

## **Factsheet 6: Reservoirs of biodiversity**

For introduction to biological diversity:

<http://www.cbd.int/convention/guide.shtml>

For Great Barrier Reef:

<http://www.wwf.org.au/ourwork/oceans/gbr>

For mudflats:

<http://www.ukbap.org.uk/UKPlans.aspx?ID=34>

For wetlands and waterbirds, fish and amphibians:

<http://www.millenniumassessment.org/documents/document.358.aspx.pdf> (page 26)

For Amazon Basin:

[http://www.idrc.ca/fr/ev-58882-201-1-DO\\_TOPIC.html](http://www.idrc.ca/fr/ev-58882-201-1-DO_TOPIC.html)

For Mekong Delta:

<http://www.panda.org/index.cfm?uNewsID=152622>

For Lower Mekong River:

[http://74.125.77.132/search?q=cache:nFL5Sa2vi1wJ:www.mrcmekong.org/download/free\\_download/Mekong\\_Development\\_No2.pdf+Mekong+biodiversity&hl=en&ct=clnk&cd=1&gl=uk](http://74.125.77.132/search?q=cache:nFL5Sa2vi1wJ:www.mrcmekong.org/download/free_download/Mekong_Development_No2.pdf+Mekong+biodiversity&hl=en&ct=clnk&cd=1&gl=uk)

For Florida wildlife value:

Southwick Associates, Inc. 2003. The 2001 Economic Benefits of Watchable Wildlife Recreation in Florida. Report prepared for Florida Fish and Wildlife Conservation Commission.

For mangrove medicinal properties:

<http://www.ncbi.nlm.nih.gov/pubmed/16182483>

For damage to wetland ecosystems:

<http://www.millenniumassessment.org/documents/document.358.aspx.pdf> (page iii)

For threatened wetland species:

Data provided by the IUCN *Red List*, BirdLife International, and Wetlands International.

For underlying drivers of wetland biodiversity loss:

<http://www.millenniumassessment.org/documents/document.358.aspx.pdf> (page 5)



For invasive alien species:

<http://www.millenniumassessment.org/documents/document.358.aspx.pdf> (page 6)

## **Factsheet 7: Wetland products**

For fisheries production, using FAO data:

<http://www.greenfacts.org/en/fisheries/l-2/01-fisheries-production.htm>

For US wetlands, fisheries and economics:

<http://www.nmfs.noaa.gov/habitat/habitatconservation/publications/habitatconnections/num2.htm>

For fish and fishery products:

<http://www.fao.org/docrep/010/ai466e/ai466e10.htm#32>

For aquaculture:

[http://www.ramsar.org/pdf/wwd/7/wwd2007\\_leaflet\\_e.pdf](http://www.ramsar.org/pdf/wwd/7/wwd2007_leaflet_e.pdf)

For world rice statistics:

[http://beta.irri.org/solutions/index.php?option=com\\_content&task=view&id=250](http://beta.irri.org/solutions/index.php?option=com_content&task=view&id=250)

For enhancing biodiversity in rice paddies as wetland systems:

Ramsar COP10 Resolution X.31: [http://www.ramsar.org/pdf/res/key\\_res\\_x\\_31\\_e.pdf](http://www.ramsar.org/pdf/res/key_res_x_31_e.pdf)

For Nipa sugar facts:

<http://sciencelinks.jp/j-east/article/200413/000020041304A0457592.php>

For valuing mangrove conservation in southern Thailand:

[http://www.mangroveactionproject.org/files/economics/Valuing Mangrove Conservation in Southern Thailand.pdf](http://www.mangroveactionproject.org/files/economics/Valuing%20Mangrove%20Conservation%20in%20Southern%20Thailand.pdf)

## **Factsheet 8: Cultural values**

For culture and wetlands guidance document:

[http://www.ramsar.org/pdf/cop10/cop10\\_culture\\_group\\_e.pdf](http://www.ramsar.org/pdf/cop10/cop10_culture_group_e.pdf)

For Xixi National Wetland Park:

<http://www.xixiwetland.com.cn/en/sdgy.htm>

For Tollund Man:

<http://www.tollundman.dk>

For Doñana wetlands:

[http://www.medwet.org/medwetnew/en/01.NEWS/01.1.new\\_page.asp?ARTICLE\\_id=1184](http://www.medwet.org/medwetnew/en/01.NEWS/01.1.new_page.asp?ARTICLE_id=1184)

For Kakadu's culture and history:

<http://www.environment.gov.au/parks/kakadu/culture-history/index.html>

For Kakadu visitor statistics:

<http://www.environment.gov.au/parks/kakadu/visitor-information/faq.html>

For recreational hunting in the US:

<http://www.ducks.org/Conservation/Habitat/1543/Recreation.html>

## **Factsheet 9: Recreation & tourism**

For income from Caribbean tourism:

[http://www.wttc.org/eng/Tourism\\_Research/Tourism\\_Impact\\_Data\\_and\\_Forecast\\_Tool/index.php](http://www.wttc.org/eng/Tourism_Research/Tourism_Impact_Data_and_Forecast_Tool/index.php)

For economic implications of coral reef degradation:

<http://www.wri.org/publication/content/7853>

For Bonaire National Marine Park activity fees:

<http://www.bmp.org/admission.html>

For Bonaire National Marine Park contribution to the island's economy:

<http://bonairereporter.com/news/2003issues/07-25-03>

For Cayman Islands tourism:

[http://www.caymanislands.ky/content/images/foi/docs/ppdev/FINAL-NTMP\(2009-13\).doc](http://www.caymanislands.ky/content/images/foi/docs/ppdev/FINAL-NTMP(2009-13).doc)

For Florida Keys diving income:

<http://keysnews.com/node/13160>

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For income generation of the Great Barrier Reef Marine Park:  
<http://www.barrierreefaustralia.com/the-great-barrier-reef/great-barrier-reef-info.htm>

For 'The Value of Kakadu National Park':  
<http://www.griffith.edu.au/conference/cauthe2008/refereed-papers/RP076.pdf>

For the value of tourism in the Okavango Delta:  
<http://www.up.ac.za/dspace/handle/2263/3003>

For Giverny/Monet ornamental wetlands:  
<http://giverny.org>

For 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation:  
[library.fws.gov/pubs/nat\\_survey2006\\_final.pdf](http://library.fws.gov/pubs/nat_survey2006_final.pdf)

For waterfowl hunting in the USA:  
<http://www.ducks.org/Hunting/HuntingHomePage/2129/DUandHuntingContinued.html>

For tourism and recreation in the Broads National Park, UK:  
[http://www.broads-authority.gov.uk/broads/live/authority/publications/general-publications/BROADS\\_PLAN\\_2004\\_Chap\\_6-7.pdf](http://www.broads-authority.gov.uk/broads/live/authority/publications/general-publications/BROADS_PLAN_2004_Chap_6-7.pdf)

For global network of wetland educational centres:  
<http://www.wwt.org.uk/wli?>

For Waterwatch Australia:  
<http://www.waterwatch.org.au>

For the WWT London Wetland Centre, UK:  
[http://www.wwt.org.uk/text/496/wwt\\_london\\_wetland\\_centre.html](http://www.wwt.org.uk/text/496/wwt_london_wetland_centre.html)

For 'Freshwater and Tourism in the Mediterranean':  
[http://assets.panda.org/downloads/medpotourismreportfinal\\_ofnc.pdf](http://assets.panda.org/downloads/medpotourismreportfinal_ofnc.pdf)

## **Factsheet 10: Climate change mitigation & adaptation**

For the IPCC 4th Assessment Report:  
<http://www.ipcc.ch>

For the IPCC Technical Paper VI, Climate Change and Water (Bates *et al.* 2006):  
[http://www.ipcc.ch/publications\\_and\\_data/publications\\_and\\_data\\_technical\\_papers\\_climate\\_change\\_and\\_water.htm](http://www.ipcc.ch/publications_and_data/publications_and_data_technical_papers_climate_change_and_water.htm)

For the value of coastal wetlands for hurricane protection:  
Constanza, R., O. Pérez-Maqueo, M.L. Martinez, P. Sutton, S.J. Anderson & K. Mulder. 2008.  
The Value of Coastal Wetlands for Hurricane Protection. *Ambio* 37, pp 241-248.



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