

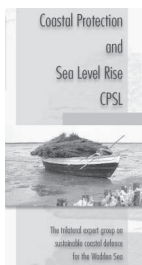
Publications

Coastal Protection and Sea Level Rise

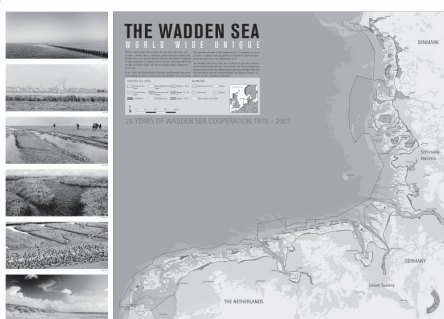
A Trilateral Expert Group on Sustainable Coastal Defense for the Wadden Sea (CPSL)

The information flyer was prepared by the trilateral CPSL group and summarizes the results of the first working phase published in the Wadden Sea Ecosystem No. 13 (2001) for a broader public. The basic messages are explained together with an outlook on the second work phase (CPSL II) which started in autumn 2003. The work is focusing on elaborating integrated coastal defense solutions.

The flyer is available in English, German, Dutch and Danish and can be downloaded from the CWSS website or obtained as hard copy from the CWSS (mailing costs).



The map (about 84 x 60 cm) is available in English, German, Dutch and Danish and can be downloaded from the CWSS website or obtained as hard copy from the CWSS (price EUR 3, plus mailing costs). The satellite poster (about 65 x 60 cm) can be obtained from the CWSS (price EUR 12, plus mailing cost).



Wadden Sea Map and Satellite Poster

The recently printed map is an update of the 1994 map published at the Ministerial Conference in Leeuwarden. The update was necessary because of changes in the baseline and extensions of the nature reserve in Denmark (1998) and the Wadden Sea national parks in Germany (1999 and 2001). The boundaries of the Trilateral Cooperation were adapted accordingly and now partly exceed the three-nautical mile line which was the boundary of the cooperation according to the Wadden Sea Plan 1997. Additionally, the map illustrates the basic morphological characteristics of the mainland outside the Wadden Sea Area which were compiled by the Lancewad project in 2001.

The satellite poster, published on the occasion of the 25th Anniversary of the Trilateral Cooperation in 2003, consists of six satellite images from "Landsat 7" taken during the period May 2000 – April 2003. A deftly selection of the images makes it possible to show all Wadden Sea tidal flats at low tide and thus the ebb-tidal deltas at the seaward outlets of the tidal inlets between the barrier islands.

Results Scientific Research EVA II

EVA II is the second phase in the evaluation of shellfish fisheries policy in the Netherlands. The evaluation and the associated scientific research should produce sufficient knowledge to facilitate decision making on a new policy on shellfish fishing in Dutch coastal waters.

The English translation of the results of the Dutch scientific research EVA II was published in March 2003 and summarizes the findings of all scientific research projects within the framework of EVA II.

The single project reports (in Dutch) are available at the project website (www.eva2.nl) or at Interwad (www.waddenzee.nl) together with further background information and recent information.

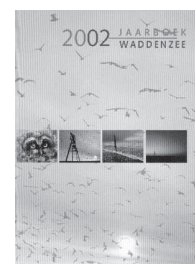


Condition of the Dutch Wadden Sea in 2002

Jaarboek Waddenzee 2002, 84 pp., Rijkswaterstaat, Leeuwarden.

This 7th Wadden Sea Yearbook has been produced by five ministries and three provinces. It contains facts and figures regarding the state of the Dutch Wadden Sea including human activities in the region.

The Yearbook describes 2002 as a "turbulent" year: the seal population was struck by a virus, some bird populations (eider, avocet, herring gull) continued to decrease, new hazardous substanc-

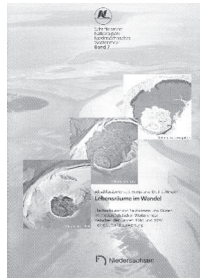


es like diuron and irgarol were detected and mussel fishery had temporarily to be stopped because of an algae bloom.

The complete Yearbook (in Dutch) can be downloaded from InterWad (www.waddenzee.nl) where an English summary also available. Hard copies can be ordered at the Bibliotheek Rijkswaterstaat, Postbus 2310, 8901 JH Leeuwarden, phone +31 58 2344405, e-mail: bibliotheek@dnn.rws.minvenw.nl

Development of Coastal Habitats over 30 Years

Bunje, J. & L. Ringot, 2003. Lebensräume im Wandel. Flächenbilanz von Salzwiesen und Dünen im niedersächsischen Wattenmeer zwischen den Jahren 1966 und 1997 – eine Luftbildauswertung. Schriftenreihe Nationalpark Niedersächsisches Wattenmeer, Band 7, 48 pp und CD-Rom, Wilhelmshaven.

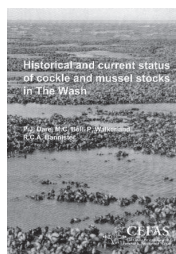


With this analysis, a complete inventory using common criteria has been published for dunes and salt marshes covering the whole national park over a period of 30 years. For both habitats, a clear increase of the area could be observed: the area of salt marshes on the mainland increased with 1,600 ha, on the island with 1,100 ha, whereas erosion of salt marshes was much lower (180 ha respectively 60 ha).

In the dune area, an increase of 870 ha was calculated compared to a loss of 115 ha. Another important result was that the loss of tidal flats, salt marshes and dune habitats due to human interference summed up to about 2,200 ha over the last 30 years.

Cockles and Blue Mussels in The Wash

Dare, P.J., Bell, M.C., Walker, P. & Bannister, R.C.A., 2004. Historical and current status of cockle and mussel stocks in The Wash. 85 pp, CEFAS Lowestoft, UK.



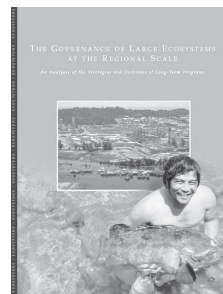
The report was initiated by the Wash Forum to determine whether the cockle and mussel stock declines fall within the natural fluctuations or if they indicate a change from natural or anthropogenic causes. The report analyses the changes in abundances, recruitment variability and impacts of fisheries. It was concluded that the most likely cause of the decline of mussels is the high exploitation rate in the early 1990s combined with the innate variability of mussel spatfall. Cockle stocks have also been depleted by high exploitation. Unlike mussels the failure to replace

depleted stocks has not been a result of unusually poor spatfalls but high post-settlement mortality of young cockles.

Recommendations for research address recruitment ecology, impact of suction dredging, resolving different factors of mortality and construction of life history models. Some options for management of cockle and mussel fisheries are set out including setting aside stock reserves for safeguard spawning, spatio-temporal control of fishing effort, stock culture management and technical measures.

Analysis of Wadden Sea Management

Olsen, S.B. and D. Nickerson. 2003. The Governance of Coastal Ecosystems at the Regional Scale: An Analysis of the Strategies and Outcomes of Long-Term Programs. Coastal Management Report No. 2243. ISBN 1-885454-51-1. University of Rhode Island, Coastal Resources Center. Narragansett, Rhode Island, 34 pages.



The analysis by the Coastal Research Center of the University of Rhode Island assessed policy and management in the Great Barrier Reef (Australia), Chesapeake Bay (USA) and the Wadden Sea. These three cases have been selected because they have all adopted a common planning and decision making approach and have evolved as formally-established programs to implement a plan of action designed to maintain or restore ecosystem qualities.

The report elucidated that it took a decade or more of political debate to establish these programs (e.g. during the 1970s), in all cases with strong support by the scientific community. Another similarity is how the programs evolved: the first generation agenda was limited to a few issues. In the following years, the geographic scope and the complexity of the issues addressed have gradually expanded. It is also analyzed for all three areas, how the vertical integration across several levels was done, how formal structures like a secretariat or a formal agreement developed, how stakeholder and NGOs were involved, and the future challenges for governance of large ecosystem areas.

The analysis underlined that the Wadden Sea states have reached a high standard of protection and cooperation which is world-wide recognized.