Conservation and Management of the Waddensea

Fred van der Vegte

Europarc, Sept. 12, 2009
Kust- en Zeebescherming

Map 7 Coastal zone protected by Natura2000 sites (2005)

Map 8 Coastal zone with Natura2000 land/sea connections, by NUTS3 regions

THE WADDEN SEA
WORLD WIDE UNIQUE

The Wadden Sea is a wide expanse of mud and salt flats, with marshes, lagoons, channels, estuaries, gullies and open water, the Wadden Sea is a unique area of great biological importance. This area is a huge breeding ground for various species of fish and fauna. Between 8 and 12 million birds visit the area during their migration every year.

Since 1976, the Netherlands, Germany and Denmark have been cooperating to conserve and protect the Wadden Sea as a whole.

WADDEN CO- OPERATIVE CO-OPERATIVE


DENMARK

GERMANY

THE NETHERLANDS
IUCN WORLD HERITAGE NOMINATION – THE WADDEN SEA (GERMANY/THE NETHERLANDS)

Criterion (ix): Ecological processes

- The Wadden Sea is one of the last remaining natural large-scale intertidal ecosystems, where natural processes continue to function largely undisturbed.
- Its geological and geomorphologic features are closely entwined with biophysical processes and provide an invaluable record of the ongoing dynamic adaptation of coastal environments to global change.
- There is a multitude of transitional zones between land, sea and freshwater that are the basis for the species richness of the property.
- The productivity of biomass in the Wadden Sea is one of the highest in the world, most significantly demonstrated in the numbers of fish, shellfish and birds supported by the property.
- The property is a key site for migratory birds, and its ecosystems sustain wildlife populations well beyond its borders.

- The Wadden Sea (Germany and The Netherlands) 968,393 ha
- 900 species vascular plants;
- 176 birds (over 6.1 Million migratory birds at the same time; 10-12M each year)
Map of the Particularly Sensitive Sea Area (PSSA) Wadden Sea as designated by the IMO

Legend

- Particularly Sensitive Sea Area Wadden Sea

N

0 10 20 30 40 50 Kilometers

UTM project June 32

DENMARK

Den Helder

THE NETHERLANDS

GERMANY

Husum

Tønder

Hede

Wilhelmshaven

Emden

Groningen

Leeuwarden

Drachten

Emden

Paulsö

Den Helder
Traffic regulations
Coastal and Marine Conservation

WATER FRAMEWORK DIRECTIVE

- good ecological status - by 2015
- promote sustainable use of water
- reduce pollution of water
- lessen effects of floods and droughts
- management based on the concept of river basin planning
PKB -kaart 4: Water

- kustfundament
- primaire waterkering
- winterbed grote rivieren
- ruimte voor de rivieren
- prioritaire zwakke schakels
  1. kustvek Den Heldere - Callantsoog
  2. kustvek Honsboshche en Pettener zeewering
  3. waterkering Noordwijk
  4. waterkering Scheveningen
  5. kustvek Hoek van Holland - Kijkduin
  6. kustvek Flauwe Werk (Geerse-Overflakkee)
  7. kustvek Zuidwest Walcheren
  8. kustvek West Zeeuws-Vlaanderen (Cadzand - Breskens)

- kustlocatie Zuid-Holland

- grote open wateren:
  1. Wadenzee
  2. Ijsselmeer gebied
  3. Zuidwestelijke Delta

- voorlopige voorkeursgebieden noodoverloop:
  A. Rijnstrang
  B. Ooijpolder
  C. oostelijk deel Beersche Overlaat

ondergrond
- vereenvoudigde topografie (exclusief hoofdinfrastructuur)
- grens Exclusieve Economische Zone (EEZ) en 12-mijlszone

Het kaartbeeld betreft een indicatieve weergave van de in de legends vermelde eenheden.
Dutch Waddensea
Natura 2000 designations
Natura 2000,
Habitats and Birds Directives Areas
Ecological studies

- Overfishing: 42% less Knots in 10 years’ time
- Invading alien mussel species

**MOSSELWAD: € six million for mussel bed recovery**

The Coastal & Marine Union (EUCC) has been granted €6 million for the recovery of mussel beds in the Dutch Wadden Sea.

Within the MOSSELWAD project new experimental mussel beds will be constructed and the development of recovering mussel beds will be followed during a four year period.

The project will look at stability, biodiversity, sediment transport and the importance of wading birds. In this framework, EUCC will actively seek co-operation with other projects and research activities in the Wadden Sea.
Ecological studies
Map 5.4  Illegal operational oil discharges in designated European MARPOL 73/78 special sea areas (2000–2004)

Note: This map covers the North, Baltic, Mediterranean and Black Seas only. In the North and Baltic Seas, illegal operational oil discharges were detected by aerial surveillance. In the Mediterranean and Black Seas, these have been detected by radar satellite images (i.e. "probable" spills), but not been cross-validated by aerial surveillance. Further, the varying extent of surveillance in different seas may lead to over or under representing the degree of pollution.

Mackerel migration and spawning areas (ICES)

Brent Goose (Rotgans) migration routes in north west Europe (EUCC)
Coastal and Marine Conservation

- 1973 MARPOL Convention
- 1979 EU Birds Directive
- 1981 European Coastal Charter
- 1982 Joint Declaration on Protection of the Waddensea
- 1988 North Sea Task Force
- 1992 OSPAR Convention
- 1992 EU Habitats Directive
- 2000 EU Water Framework Directive
- 2002 EC Recommendation 2002/413/EEC (integrated coastal zone management)
- 2007 EU Marine Strategy
WWF is promoting the set up of a network of MPAs in the Northeast Atlantic to safeguard all habitat types in the region, working with the OSPAR Convention (the instrument guiding international cooperation on the protection of the marine environment of the Northeast Atlantic.)
• Marine Landscapes
  - coastal (seabed + watercolumn)
  - seabed
  - water column of the open seas

• Criteria for national importance
  1. typicalness (habitats, processes)
  2. naturalness (near-natural state)
  3. size (greater extent, more integrity)
  4. biological diversity
  5. critical area critical part of life-cycle)
  6. area important for a nationally-important feature

• NEED FOR SPATIAL PLANNING ?
• good environmental status of the EU's marine waters by 2021

• to protect the resource base upon which marine-related economic and social activities depend

• to achieve the full economic potential of oceans and seas in harmony with the marine environment
• ...pressures on natural marine resources and the demand for marine ecological services are often too high

• ...aimed at the conservation of the marine ecosystems, including protected areas

• Coastal waters, including their seabed and subsoil, are an integral part of the marine environment,

• Monitoring: It is crucial for spatial protection measures such as special areas of conservation, special protection areas or marine protected areas

• “Environmental status" means the overall state of the environment in marine waters, ... as well as physical, **acoustic** and chemical conditions
Germany

Harbour porpoise / bruinviss

Natura 200 sites
Map 5.3 Commercial fish stocks outside safe biological limits (2005 and 2006)

Note: Assessment based on the EEA CSI32, but with a different aggregation for Iceland, East Greenland and the Faroe Islands following the ICES fishing areas. Not all the seas assessed in this chapter are represented above. All data are from 2006 except for the Mediterranean Sea, which are from 2005 (GFCM, 2005; ICCAT, 2005a; 2005b).

Source: EEA CSI32.