Bijlage 2

11th Trilateral Governmental Conference on the Protection of the Wadden Sea
Sylt, 18 March 2010

POLICY ASSESSMENT REPORT 2010

Draft Version 3

9 December 2009

1. Introduction

The period since the 2005 Wadden Sea Conference, which was held on the Dutch Wadden Sea island of Schiermonnikoog, has been an exiting one for our common Wadden Sea. A period with many new developments trilaterally as well as nationally. The inscription of the Dutch-German Wadden Sea on the World Heritage List, the decision to designate the Danish part of the Wadden Sea as a national park, the renewal underway of the Trilateral Wadden Sea Cooperation and the Quality Status Report 2009 are just a few of the many highlights in the past period.

The Wadden Sea community of all those involved in the protection and management of the Wadden Sea is an incredibly wide-ranging, devoted and hard working group of people. It is with the efforts of those that the Wadden Sea enjoys a high standard of protection and management and a wide international recognition.

The Policy Assessment Report aims to provide an overview for a wider audience from the perspective of the protection and management of the quality status of the Wadden Sea, what has been done in the past period and the challenges ahead. The Policy assessment Report is amongst others based on the Quality Status Report 2009 and contributions to the International Scientific Symposium 2009.

2. Status

The 2009 Quality Status Report is the 5th Quality Status Report elaborated by the Wadden Sea Cooperation based on the Trilateral Monitoring and Assessment Program (TMAP) and the common data handling system which provides accurate, up-to-date and comprehensive date for the assessment of the status of the Wadden Sea. The Quality Status Reports have over the years provided a comprehensive and solid overview of the state of the Wadden Sea including the trends and is an indispensable information source for the protection and management of the Wadden Sea as a coherent system.

The elaboration of the Quality Status Reports is the result of the contribution of the many Wadden Sea special research and management agencies and the contributions of the scientific community. There are very few areas world wide in which there exists such an extensive knowledge basis for the protection and management. It must be judged as one of the very strong points of what makes up for the protection and safeguarding of the Wadden Sea for generations to come as a natural area of outstanding universal value being the largest temperate-climate, sandy-muddy tidal system in the World which is largely sheltered by barrier islands and which experiences only minor river influences.

An aspect which should be improved in future is that the Quality Status Reports are used as a knowledge basis for and becomes a part of also more regional and local management purposes to further common management approaches.

The state of the Wadden Sea is measured against the agreed Targets in the Wadden Sea Plan from 1997.

The Natural Environment

WATER AND SEDIMENT

The pollution of the Wadden Sea derives mainly from external sources, i.e. the major rivers Elbe, Weser, Ems and the IJssel, the North Sea and the atmosphere. Although the input of nutrients, especially of phosphate, has decreased, the entire Wadden Sea still has to be considered a eutrophication problem area.

The riverine input of metals (Cd, Cu, Hg, Pb, Zn) during the period 1996 – 2007 remained at the same level as in 1995 or continued to decrease at a moderate rate. For some metals, the Target of background concentrations in sediment and biota (blue mussels and bird eggs) has not yet been reached in all sub-areas of the Wadden Sea. For a number of xenobiotic compounds discharges to and concentrations in the Wadden Sea have decreased; however, the target has not yet been reached.

Oil rates among beached birds have decreased since the 1980s but are still high.

Litter pollution is a constant threat and, as the results of the OSPAR beach surveys indicate, currently increasing in the southern North Sea area. A recent analysis of beached birds data indicates that entanglements with litter are also increasing.

SALT MARSHES

Although different management approaches and tools are applied in different parts of the Wadden Sea, the direction of salt marsh management can be regarded as a common one towards the Targets. Since the mid 1980s, the Wadden Sea salt marshes in most areas have increased. Local losses occurred and were mainly due to poor sedimentation conditions or to erosion of the intertidal flat area adjacent to the marsh. In general, livestock grazing and artificial drainage measures have decreased in the entire Wadden Sea since the 1980s and the salt marshes now support a variety of vegetation types. [Ageing of salt marshes is a problem in some areas and will require more attention in salt marsh management in future.][1]

TIDAL AREA

The tidal area is characterized by a high degree of natural dynamics. The direction of tidal area management can be regarded as a common one towards the Targets.

Accelerated sea level rise, expected as a result of climate change, will most probably increase the sediment importing demands. Current sea level rise is about 15 cm/100 years. Up to a sea level rise of 50 cm/100 years (i.e., 5 mm/year, varying considerably among different tidal basins) the system may be able to compensate for these increased levels by natural sediment redistribution. Latest projections indicate that sea level rise may become higher that 5 mm/year, especially in the second half of this century. It may be expected that the volumes of sediment needed to balance sea level rise in the Wadden Sea can than no longer be supplied by natural processes alone. As a consequence, the ecological integrity and functionality of the Wadden Sea ecosystem, characterized by a high proportion of intertidal flats, may be affected adversely. To prevent an ecosystem change, adaptation measures may become necessary.

The exploitation of natural gas, in and adjacent to the Wadden Sea, causes an additional subsidence of the sea floor and aggravates the effects of sea level rise. However, monitoring records of more than 20 years show that no significant losses of natural values have been found and that subsidence of tidal flats was fully compensated by natural sedimentation. Also the extraction of sand from the Wadden Sea has a negative effect on the sand balance. During the past decades sand extraction has steadily declined. Still a certain amount of sand

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is used only for purposes of coastal protection, e.g. beach nourishment, dike and dwelling mound reinforcement.

In 1985-1995, numbers and size of mature mussel beds have seriously declined all over the Wadden Sea, although there are regional differences. The lack of spatfall, fishing for seed mussels in some areas, as well as some winters with heavy storms, may have played a role. In the past 10 years a slow recovery of intertidal mussel beds has occurred in some areas but levels are still far below those of the 1970s and early 1980s. The situation of subtidal mussel beds is largely unknown.

The main causes for the decline in *Sabellaria* reefs and seagrass meadows are unclear. A slow recovery of seagrass stands has been observed, for which the improved water quality is made responsible. There is insufficient knowledge of the situation of the sublittoral part of the tidal area.

Average water temperatures in the Wadden Sea have increased as a result of global warming. Climate change may stress the present structure and functioning of the food web and may result in a cascade of yet unknown effects.

In the Wadden Sea a multitude of alien species have established permanent populations, several of them are of invasive or potential invasive nature. These species pose a serious impact to native biodiversity, because they have the potential to alter the natural state of an ecosystem into which they were introduced, and may enhance the trend of global homogenization of flora and fauna. Especially Pacific oysters are found today in all parts of the Wadden Sea.

Although several human activities in the Nature Conservation Area have decreased in size and/or intensity, i.e. sand mining, shellfish fishing and military activities, generally, pressures from outside the Nature Conservation Area have increased and are expected to increase further. The management of the Wadden Sea Area should be able to cope with these developments and to safeguard that these developments will not cause major adverse effects on the integrity of the Nature Conservation Area.

BEACHES AND DUNES

The dune Targets of increased natural dynamics and of an increased presence of a complete natural vegetation succession have not yet been reached because of, in particular, stabilization of dunes resulting in decreasing dune dynamics (mainly due to coastal flood defence and protection measures), decrease of ground water level and impacts on dune slacks (due to water extraction), eutrophication of dunes by atmospheric deposition, fragmentation of dune habitats and invasive species.

Especially wet dune slacks are of outstanding importance because they are inhabited by a number of endangered species, which have become rare during the last decades because of habitat loss, stabilization of dunes and lowering of groundwater table through drinking water extraction.

Over the last century all Northwest-European dune ecosystems have experienced changes due to increased nutrient deposition, planting of conifers, grazing pressure, or invasion of non-native species such as *Rosa rugosa*. Generally N-sensitive vegetation has declined in semi-natural ecosystems in Europe as an example heath, grasslands and fens.

There is a considerable extent and diversity of sandy beaches in the Wadden Sea Area. The biota is distinctly different in composition from that of the offshore belt and the tidal area. Beaches considerably contribute to overall faunal diversity with rather unique forms of life. In contrast to tidal flats, organisms have little effects on their habitat. Physical factors select the forms of life, most of which are rather small. Two of the most threatened breeding bird

species in the Wadden Sea Area, the Kentish plover and the little tern, breed mainly on beaches.

OFFSHORE AREA

Apart from coastal defence activities on the Wadden Sea islands (*e.g.* cross-shore dam at Texel) no evidence has become available of any negative development in natural dynamics of the geomorphology of the offshore area. Notwithstanding progress in protection, amongst others through the designation of the Wadden Sea PSSA in 2002, there are several activities in the offshore zone of the Wadden Sea, including shipping adjacent to the area, which can pose a threat to the ecology of this area. The offshore zone is important for birds during periods of food shortage. Safeguarding the food situation of (diving) birds is closely connected to the shellfish fishery in the area.

Intensive fishery may result in disturbance of seabirds. This is particularly the case for the seaduck species eider and common scooter, which depend on the offshore area – both as major roosting and foraging area during winter, but not least during the sensitive moulting period in late summer. Another problem for the offshore fauna could be sand extraction in the German Bight.

The increasing interest in building wind farms in the North Sea brings another risk to both seabirds and marine mammals. Wind farms are not allowed in the Nature Conservation Area, but close to this area some have already been established and others planned, and can, therefore, influence parts of the same populations that use both the offshore area and the tidal area.

ESTUARIES

Especially the smaller river outflows in the Wadden Sea Area have sluices or surge barriers that prevent natural mixing of fresh and salt water and the establishment of transition zones. Of the five estuaries with open access to the Wadden Sea, the rivers Elbe, Weser and Ems constitute the seaward access routes to the major German sea ports and are among the most industrialized regions of the Wadden Sea Area. Over the last centuries the industrial development of these rivers has resulted in significant alterations in morphology, hydrography (including tidal amplitude), flora and fauna, amongst others as a result of deepening, embankment and fixation of river banks, including the resulting loss of brackish marshes.

By virtue of the designation of large sections of the foreland and water areas of the estuaries as Natura 2000 sites, the first target can be viewed as extensively achieved. However, the Target regarding the restoration of river banks has not been achieved. Loads of nutrients and several contaminants have been reduced considerably over the last 20 years.

The ecological importance of the upper Ems estuary and especially of its tidal freshwater reach has drastically deteriorated over the last 20 years. During the last 20 years the Weser ecosystem has undergone fewer changes than that of the Ems. However, further deepening has occurred and the alteration of the tidal amplitude is highest. In the tidal freshwater reach of the Elbe estuary bad water quality (especially oxygen deficiency), high dredging volumes and further deepening have further degraded the ecological system. The Varde Å estuary has morphologically remained in its natural state, extensification is now taking place in almost 2,400 hectares of marshland on the Varde A banks.

Climate Change will also change the ecological situation in the estuaries due to changes in the freshwater flow regime, accelerated sea level rise, rising temperature and others.

RURAL AREA

The migratory birds that rely on rural areas are golden plover, brent goose, widgeon, curlew, lapwing and barnacle goose. Among these, barnacle geese have shown a significant

increase since 1987 (as part of a general population increase). The brent goose shows an adverse trend (now stable, but decline in the 1990s and probably also in near future, due to lack of good breeding years in Siberia). The other species show stable trends. The exception is the golden plover that has shown a decline since 1987. This is one of the main species relying on rural areas behind the seawall.

Six species that rely mainly or partly on rural areas behind the seawall as breeding grounds (oystercatcher, Northern lapwing, ruff, common snipe, black-tailed godwit, and common redshank) showed significant declines in 1991-2006. Drivers for the negative trends are not known in detail in all species. Part of the nests fail, due to predation (mainly mainland), whereas many other suffer from intensified agricultural practise (all areas), e.g. application of fertilizer and earlier mowing of grassland in spring. Numbers of spoonbill have increased, so have their numbers that have been observed feeding in ditches in the rural area.
Thus the target for the rural area has not been met yet.

BIRDS

Trends for 34 waterbirds are now available for a 20-year period for the entire Wadden Sea and show that 8 species show a strong or moderate increase, 12 species are stable and 14 species show decreasing trends. The reason for changes in numbers for most species is not known and for future assessments more detailed information and data are necessary, together with ecological studies.

Analyses of trends of Wadden Sea breeding birds in 1991-2006, show that 13 of the 31 monitored species are actually in decline. Especially in waders, declines are most pronounced: 12 of 13 declining species represent this group and they include both typical Wadden Sea breeding species, such as oystercatcher, avocet and common redshank and more farmland-dependent species, such as Northern lapwing and black-tailed godwit. Recent counts suggest that (further) declines are also due in common eider, arctic tern and little tern.

Backgrounds of the observed trends are only partly known. At least in some species it has been demonstrated that breeding success has been low for many years.

Some bird species are now arriving earlier and staying longer during autumn, than in the past. These major changes in phenology are most likely influenced by milder climate during the last 20 years, and from a management perspective this opens new challenges, meaning that the Wadden Sea shall in the future be able to receive and hold numbers of birds that no longer use their original autumn and wintering grounds, as well as those individuals that normally use to stay in the Wadden Sea during autumn and winter.

Thus assessment of the targets is difficult and shows not a clear picture. The decline in some characteristic Wadden Sea bird species causes concern.

MARINE MAMMALS

In the years after the virus epidemics in 1988 and 2002, the population of the harbour seal has shown a rapid recovery. During coordinated flights in the entire Wadden Sea Area in 2009, a total of 21,571 seals was counted, the highest number ever counted in the Wadden Sea during the moult.

Grey seals have relatively recently recolonised the Wadden Sea. Currently the species is regularly seen in all countries, including the Danish Wadden Sea area, which seems to be the last area colonised. The maximum number of grey seals counted during the moult 2009 in the Wadden Sea and at Helgoland, is 2,786 animals.

Estimates of harbour porpoise numbers in 2005 for the total North Sea area amount to 335,000 animals. The main concentrations seem to have shifted from the northern North Sea

southwards. German studies show hot spots of abundance and frequency (Sylter Außenriff, Borkum Riffgrund and the area north of Helgoland).

At present, the harbour seal population does not show any indication of density dependence.

Pollution is presently not a major issue for marine mammals in this area. At current levels the seal species do not seem to be affected in their population growth. Awareness of possible new sources of pollutants should remain however.

The total population size indicates that the present harbour seal population can be regarded as viable. For both the grey seal and the harbour porpoise data are lacking to enable to assess whether the current stocks dependant on the Wadden Sea area are viable, or to adequately estimate the natural reproduction capacity. In both cases the current stocks are strongly in an interdependency with stocks subsiding elsewhere in the North Sea.

FISH

The Water Framework Directive recognizes fish as a biological quality element for transitional waters (estuaries) and selected fish species are listed in the Habitats Directive. Thus, fish have now been included into the Wadden Sea Plan and targets have been formulated.

Among the most relevant anthropogenic factors influencing the habitat conditions in river systems are dams, sluices, weirs and riverbed maintenance. In the estuaries dredging and the disposal of dredged material, coastal protection and flood defence and the direct or diffuse input of substances from industry and agriculture are main factors. Fishery, mainly on shrimp and mussels, takes place.

The diadromous fish currently seem to suffer most from bottlenecks in the upstream parts of (some) estuaries, where water quality and essential habitats are failing, resulting in some species missing and low abundance of the remaining.

The houting belongs to the most endangered fish species of the Wadden Sea/North Sea and is one of two prioritized species under the EC Habitats Directive. Previously, it was common in the Wadden Sea Area and adjacent river systems, but to day it is only found in the Danish part of the Wadden Sea Area (and maybe also in Schleswig-Holstein) and in certain adjacent rivers. The actual conservation status is unfavourable.

The observed distribution shifts of juvenile flatfish indicate changed conditions in the Wadden Sea nursery, which may have become less favourable due to higher water temperatures during summer.

Landscape and Culture

The cultural landscape of the Wadden Sea encompasses the cultural entities. In the framework of two Interreg co-funded projects, the Lancewad and the Lancewadplan projects, a comprehensive inventory of the landscape and cultural features of the Wadden Sea was made and a draft strategy for the protection and sustainable management of the heritage elaborated as expert proposal by a working group.

The landscape and cultural-historic features of the Wadden Sea are under rapid transformation because of changes in agricultural practices, amongst others, changes in crops and a further intensification of agriculture.

Enlargement of land parcels, urbanization and industrialization, and the associated construction of infra-structural installations enhance this transformation. This development

interferes with characteristic elements such as the openness, serenity and identity of the landscape, the topography of the landscape, the biodiversity and the cultural-historic remnants. The construction of wind turbines has increased significantly during recent years because the production of electricity from wind energy is particularly productive in the area. However, wind turbine installations also interfere with the landscape values.

3. Trilateral Policy and Management

As mentioned in the introduction, the period since the last Conference in 2005 on the island of Schiermonnikoog has been an exciting one for the further protection and management of the Wadden Sea. After the Conference, the decisions of the Declaration were taken up promptly and an implementation plan elaborated for the period until the 2010 Conference. This has resulted in the implementation of the majority of the decisions. In the following an overview is given of the implementation of the 2005 Declaration.

Joint Declaration 2010

Soon after the Schiermonnikoog Conference an evaluation of the Cooperation was undertaken in accordance with §30 Schiermonnikoog Declaration. This work was done in 2007 by two external consultants, who have extensive experience with environmental governance, wetlands and protected area management. The evaluation concluded that the original *Joint Declaration on the Protection of the Wadden Sea*, signed in 1982, has established the Trilateral Cooperation between Denmark, Germany and the Netherlands and has served the Cooperation well. As a result, the Wadden Sea now enjoys a level of environmental protection and wise management that is unprecedented throughout Europe for a transboundary wetland of international importance.

Since then the work of the Cooperation has developed and the Joint Declaration has become progressively “dated” as a fundamental document to underpin the Cooperation. The activities of the Cooperation have progressed well beyond the rather limited scope defined in 1982. The evaluation concluded that it was necessary to clarify the strategic direction of the Cooperation, to improve the governance and to produce a refreshed Joint Declaration designed to meet the present and future needs of the Cooperation.

The Joint Declaration 2010 does not alter the spirit or legal status of the Cooperation. The Cooperation will remain a formal (but not legally binding) Cooperation between the governments of the three countries. The Joint Declaration 2010 encompasses the overall principles for the protection of the Wadden Sea and the objectives and areas of cooperation. Furthermore, the Declaration sets the overall institutional and financial framework for the Cooperation.

The revised Governance Arrangements are based on the principles of good governance. The governance structures replace all of the existing structures as shown schematically in the organisational chart.

With the refreshed Joint Declaration and the new governance arrangements the Cooperation is fit-for-purpose and future directed. The Wadden Sea Board will commence its work after the Sylt Conference.

Dutch-German World Heritage Property

Immediately after the 2005 Wadden Sea Conference, Germany and the Netherlands commenced the consultation on the nomination of the Dutch – German part of the Wadden Sea for inscription on the World Heritage List, in accordance with §8 of the Schiermonnikoog Declaration. A project group was established to prepare the comprehensive nomination document. After an extensive consultation of all relevant stakeholders, approval by the responsible authorities and, as appropriate, state parliaments, the national and state cabinets authorized the nomination of the Dutch-German Wadden Sea for the World Heritage List on the basis of the existing rules and regulations.

The nomination dossier was submitted to the UNESCO World Heritage Center at the end of January 2008. In the period between the submission of the nomination and the meeting of the World Heritage Committee in Seville, June 2009, the nomination was subject to an extensive evaluation by the IUCN including an almost two weeks field mission in September 2008. The IUCN requested the delivery of supplementary information to further substantiate the Outstanding Universal Value and the integrity of the nominated property. This supplementary information was delivered in February 2009 including a minor revision of the boundaries of the nominated property to exclude oil and gas exploration and exploitation activities from locations within the boundaries of the nominated property and military exercise activities.

On 26 June 2009 the World Heritage Committee, at its 33rd Session, Seville, inscribed the Dutch-German Wadden Sea on the World Heritage List under the natural criteria (viii, geological processes), (ix, ecological and biological processes) and (x, biological diversity). The Committee also adopted a Statement of Outstanding Universal Value, which, according to the Operational Guidelines, forms the basis for the future protection and management of the Dutch-German Property. The Statement is in accord with the nomination and the supplementary information submitted.

The Committee also decided to encourage Denmark to nominate its part of the Wadden Sea as soon as feasible to complement the existing Property, to request the elaboration and implementation of a Tourism Development Strategy, to implement a strict monitoring programme to control invasive species associated with ballast waters and aquaculture in the Property, and, finally, to request Germany and the Netherlands to strengthen cooperation on management and research activities with States Parties on the African Eurasian Flyways.

The inscription of the Dutch-German Wadden Sea on the World Heritage List is a milestone for the Wadden Sea and the trans-boundary cooperation. It is a recognition of the universal value of the Wadden Sea. It is the largest unbroken system of intertidal sand and mud flats in the world. It is a recognition of the efforts of the state parties and the stakeholders to protect and safeguard the Wadden Sea for future generations. The inscription of the Dutch-German Wadden Sea on the List would not have been possible without the support of the people living and working in the Wadden Sea region.

The inscription of the Dutch-German Wadden Sea on the World Heritage List is a great achievement and concludes a process that was started almost 20 years ago with the decision at the 1991 Conference in Esbjerg. Ideally the State parties now protect and manage the property on behalf of the World Community and it therefore places a great responsibility on the states. It opens also for many opportunities for regional development at the same time highlighting the importance of protecting the Property in an international context, such as regarding shipping safety. It is therefore essential that the cooperation that has been initiated between government and non- government stakeholders under the coordination of the secretariat, is continued and extended, in order to make use of the opportunities for sustainable tourism development, information and awareness and other regional development perspectives.

Danish National Park

During the same period it has been decided to designate the Danish part of the Wadden Sea a national park. This was the result of a local initiative and an agreement between with most of the involved local stakeholders and competent authorities. In 2008, the Danish parliament formally agreed to establish the Danish Wadden Sea National Park, which is to a large extent similarly delimited as the Danish Wadden Sea Area and hence incorporates the islands, major parts of the adjacent marsh areas and the Varde Å estuary. It therefore serves as an

example of the application of land-sea-management. The national park covers an area of almost 146,000 ha. The national park is planned to be inaugurated in autumn 2010 together with the enactment of the Statutory Order.

The National Park will be governed by a National Park Council. The members of the Council will be appointed by the minister and represent central and local governments and other main stakeholders of the area. The Council has no legal authority and its primary task is to develop and oversee a national park plan which will guide the protection, management and sustainable use of the park. The Council will be supported by an Advisory Board constituted of the main stakeholder organisations and local authorities. The focus will be on access and outdoor activities, information and awareness and nature restoration projects and promoting sustainable development with local involvement. The National park will be funded by the central government based on the plan but will have the possibility to acquire additional funds from local governments, partnerships etc.

Wadden Sea Plan

At the 2005 Conference it was decided to further develop within our shared Vision, Principles and Targets, the Wadden Sea Plan into a management plan for the Wadden Sea Area in accordance with the stipulations entailed in particular the Birds, Habitats and the Water Framework Directives and other European Union directives and regulations, in particular Article 6 (1) of the Habitats Directive. The planned harmonized implementation of the mentioned Directives has not yet been accomplished, partly because of the delay in implementation of the Directives on the national and regional levels.

The evaluation of the cooperation recommended a high level review against the requirements of the key EU Directives to determine the priorities of the Cooperation for further collaboration and harmonisation. This high level review has been initiated and the preliminary conclusions of the review are to focus the efforts of the Cooperation on the outcomes, trends and challenges, resulting from the implementation of in particular the Habitats and Birds Directives, the Water Framework Directive and the Marine Strategy Framework Directive and in this context to strengthen prioritisation. A further conclusion of the review is to invest in collaboration and harmonisation only where it helps to address priorities and to adopt a risk-based approach.

The report also recommends that a key element of the further collaboration and harmonisation of the EC Directives should be to provide an integrated assessment for all four central Directives and in this context to provide a roof report to inform the management authorities in the three countries and the European Commission. Finally the review recommends the redesign of the Wadden Sea Plan as a management plan for the Directives and the World Heritage Site to inform and influence others.

[The WSP has been amended and updated to the extent possible, in accordance with relevant political developments, in particular the EU Habitats, Birds and Water Framework Directives and the designation of parts of the Wadden Sea as World Heritage Site. In addition, proposals and recommendations of relevant trilateral expert groups, the QSR 2009, the 2009 Scientific Symposium, the outcome of the PSSA study, the High Level Review study, the recommendations on sustainable development of the Wadden Sea Forum, as well as the outcome of the national public consultation processes, have been included.][2]

New chapters on Integrated Management, Overarching issues (climate change, alien species, shipping), as well as an additional Target chapter on fish have been elaborated. Furthermore, some of the Targets have been amended in accordance with relevant N2000

[2] Formal reservation DK

Conservation Objectives. Some of the WSP policies have been amended in accordance with the above outlined changes. Projects and Actions have not been included but will be contained in a separate document to be discussed after TGC-11.

The WSP is the coordinated management plan for the World Heritage property. The WSP is considered the foundation upon which the outstanding universal value of the property in addition to its legal protection on national and state level is being preserved.

Management Issues

Several thematic conferences and workshops have been held since 2005 to provide input for trilateral management. The most important ones focussed on population development of migratory birds (August 2006), invasion of the Pacific oyster (March 2007), adaptation to climate change (August 2007), blue mussel fishery management (June 2008), management of dunes and beaches (August 2008) and goose management (November 2008).

Wadden Sea Forum

A Memorandum of Understanding (MoU) between the TWSC and the WSF was adopted in May 2008. The MoU, which is valid until the end of 2010, regulates a joint financing of the WSF secretariat by the TWSC and the regional authorities. The MoU contains the following joint projects of TWSC and the WSF:

1. SUSTAINABILITY INDICATORS
Development of a tool for measuring progress in sustainable development and for evaluating projects for compliance with the Guiding Principle, as well as an information system for presentation of actual data on relevant sustainability indicators. Work on the further development of the tool is in progress. Further testing and refinement after TGC-11 will be necessary.

2. INTEGRATED COASTAL ZONE MANAGEMENT
Application of harmonised ICZM principles within the international Wadden Sea Region. Connecting ICZM with sustainable development, in particular in relation to management of coastal nature protection areas. Inventory and analysis of specific cases for ICZM content. Several attempts have been made to develop an Interreg programme on the further development of ICZM, together with partners from around the North Sea. Because several partners were not able to fulfil the Interreg requirements it was not possible to submit an application. A workshop has been held under the auspices of WSF at which recommendations for further development of ICZM were formulated.

3. RULES AND REGULATIONS
External inventory of rules and regulations that directly affect the sectors. Subsequent assessment by the WSF with the aim of developing proposals for harmonisation, simplification and/or reduction. Several attempts have been made within WSF to start a project on this theme, after which WSF decided to abandon this as a WSF-project, It was, however, agreed to deliver input when the TWSC would start with an inventory and assessment.

4. SUSTAINABLE FISHERIES
A study into perspectives for coastal fisheries in the Wadden Sea.
Two workshops on mussel fisheries were held and proposals for a procedure for coming to common management principles developed. Due to differences in opinion between parts of the sector and the administration, the recommendations have so far not been implemented.

Furthermore, the MoU requires from WSF a report to TGC-11 on its activities for furthering sustainable development. In this framework, WSF has carried out the following activities, in addition to the above mentioned joint projects:

5. GOOSE MANAGEMENT
Trilateral guidelines for goose management have been developed by a WSF working group in which the administration, the agricultural sectors, green NGOs and scientist cooperate. The recommendation and guidance document entails an inventory of the current situation, aims and benefits of a common future management as well as an analysis and development of sound compensation schemes. The guidelines will be submitted to TGC-11.

6. ENERGY DEVELOPMENT
WSF has commissioned a study into the future energy generation developments in the Wadden Sea region and its impacts on the region in terms of harbour development, cable crossings, dredging and other infrastructural aspects. The outcome of the study is highly relevant for the future of Wadden Sea nature conservation as the Region will increasingly develop into an energy exporter. Additionally, the WSF has implemented an energy symposium to debate the political framework of electricity production, sustainable energy supply and Carbon Capture and Storage. The developments will be further analysed with a view on the status of the Wadden as World Heritage Site.

7. MARINE SPATIAL PLANNING
Maritime Spatial Planning (MSP) is a topic of increasing attention within the EU maritime area. The EU Commission encourages the member states to increase their efforts in cross-border cooperation and stakeholder participation with regard to MSP. The Wadden Sea Forum has a stake in the EU process of MSP and the WSF-secretariat represents the WSF in meetings on cross-border and EU level to further develop MSP.

8. TOURISM MARKETING
The WSF is involved in the WH tourism strategy group and will intensify its activities in the field of tourism marketing within the WH framework.

Shipping and Ship´s Safety[3]

At the Schiermonnikoog Conference (Schiermonnikoog Declaration §§14-17 and Annex 1) it was agreed to improve shipping safety by taking further actions outlined in Annex 1 of the Schiermonnikoog Declaration. A substantial part of the actions have been implemented since the 2005 Conference in particular those which relate to the measures and actions within the European Union and ratification of international conventions in the framework of the International Maritime Organization (IMO).

There are however a number of actions which have not yet been implemented or only been implemented partly. Spatial planning has been introduced in the Dutch-German North Sea EEZ, however, for the German part it is a planning guideline and not a planning order in the sense of regular spatial planning. The Places of Refuges have been designated according to the EC Directive, the local authorities and the public have however not been informed in the Dutch and the German part of the Wadden Sea on such designations. Furthermore, the initiatives to further harmonize the implementation of the EC Directive on port reception facilities has not yet resulted in the introduction of a no-special-fee-system and the harmonization of exemptions.

As a result of the Schiermonnikoog Conference it was decided to carry out an evaluation of the effectiveness of the Wadden Sea Particularly Sensitive Sea Area (PSSA), seven years

[3] Reservation D

after its designation by the IMO. This evaluation was done by the Southampton Solent University. The particular objectives of the evaluation were to evaluate whether the designation has contributed to provide a specific protection of the Wadden Sea from impacts through shipping and on the basis of the assessment whether the current PSSA designation needs to be enhanced on the one hand in terms of the area and the associated matters and on the other hand with regard to other or additional measures.

Since 2002 three major conventions related to shipping and the marine environment have come into force, along with the introduction of a new MARPOL annex and several amendments to existing annexes. Furthermore revised guidelines for the identification and designation of PSSAs were adopted in 2005.

The evaluation was based on an evaluative framework designed to measure the effectiveness of the Wadden Sea PSSA encompassing key indicators to measure the pressure of shipping, state of the environment and response in terms of measures. The primary outcomes of the evaluation were that it was difficult to fully measure the effectiveness of the Wadden Sea PSSA on the basis of the data reviewed from different sources. A primary recommendation is therefore to enhance the data availability specifically for the Wadden Sea PSSA. The evaluation also concluded that the awareness of the Wadden Sea PSSA amongst stakeholders was limited and that a promulgation to mariners of the PSSA should be addressed and improved.

A central outcome of the evaluation is to assess the risks to the Wadden Sea PSSA through a joint risk assessment to determine the measure to prevent and mitigate the risks including determining the joint response facilities. A further central outcome of the evaluation is the recommendation to extend boundaries of the existing area of the PSSA to include the inner separation scheme and the approach channels to the main ports to include the current associated protective measures within the PSSA to give greater substance to the designation and to help enhancing the awareness of the Wadden Sea PSSA.

Coastal Protection and Sea Level Rise

TGC-10 requested the trilateral Coastal Protection and Sea Level Rise working group (CPSL) to initiate a study on the feasibility of coastal spatial plans that consider climate change as well as to investigate possibilities for a study on the feasibility and effects of sediment nourishment to balance the sediment deficit of Wadden Sea tidal basins under increased sea level rise (§19 Schiermonnikoog Declaration).

CPSL concluded that spatial planning can contribute significantly to sustainable coastal risk management in a changing climate, and can improve the resilience of the coastal system against climate change. The group considered the current spatial planning instrument insufficient to fully cope with anticipated impacts of climate change. CPSL recommended that the possibilities for designating buffer zones and flood hazard zones be considerably extended including the application of regulatory measures within these zones and also that integrated coastal zone planning should be based upon physical characteristics defining the planning boundaries, rather than administrative boundaries. These recommendations, as well as several others, should be tested by developing fictitious spatial plans for pilot sites in the Wadden Sea region with the aim of developing a practicable methodology.

Regarding sand nourishment it was concluded that nourishments along the outer coastlines of the barriers successfully balance coastal erosion and that these nourishments may eventually contribute to the compensation of sediment deficits in the Wadden Sea tidal basins. Due to stronger sea level rise (> 5 mm/year), especially in the second half of this century, larger amounts of sediments may be needed to maintain the ecology and landscape of the Wadden Sea. For a large scale application of sand nourishments, information

(including ecological aspects) is needed with respect to the sediment source areas, the optimal nourishment sites as well as the likely transport routes and sinks of the nourished material. In order to achieve this information, CPSL recommended to carry out a trilateral study on the basis of detailed research questions, identified by the group.

LancewadPlan

Based on and in continuation of the Lancewad-Project (1999 – 2001), the Project LancewadPlan (2004-2007), also co-financed by the Interreg North Sea Program with a financial volume of about EUR 2,5 mill., aimed to extend and enhance, in cooperation with the relevant governmental and non-governmental stakeholders, the development, management and sustainable use of the common trans-boundary landscape and cultural features of the Wadden Sea Region.

The main project results were:
- Proposal for an Integrated Strategy: a common strategy “A Living Historic Landscape”, including sector strategies, for the international level, and an action program,
- Landscape characterisation: characterisation of the cultural features and in particular the historic landscape of the Wadden Sea Region. In total, 60 separate cultural entities as well as the Wadden Sea tidal area have been described and analysed,
- Regional work: elaboration of regional approaches and pilot project manage the development of landscape on local and regional level,
- Handbook: a collection of existing examples for the good management and use of the landscape and cultural heritage in the Wadden Sea Region,
- Cooperation: an attempt to establish a long-lasting and cross-border, as well as trans-disciplinary, collaboration through networks.

TMAP/Data handling/Scientific symposium

The TMAP plays a central role in the Trilateral Cooperation by providing the basis for a common assessment of the Wadden Sea ecosystem such as the QSR 2009. Regular annual reports on development of population of migratory and breeding birds have been established since 2007. Together with the new scheme of monitoring of breeding success of birds (as of 2009), this will enable a faster and better assessment of regional management measures. The QSR also illustrated the indispensable value of long-term series for the assessment of trends.

The TMAP revision process in the period 2005 – 2008 (according to §23 of the Schiermonnikoog Declaration 2005) has resulted in a modified program which integrates the monitoring requirements of the Wadden Sea Plan with the Habitats, Birds and Water Framework Directives. The TMAP data handling is an effective tool and has contributed positively to the QSR work. There is large potential to use the TMAP data for other value-added national and international purposes and this has been proven successfully already in several duties as the nomination of the Dutch-German Wadden Sea as World Heritage property, substantial contributions to the OSPAR QSR and monitoring obligations of the new EU Marine Strategy Framework Directive. TMAP data will be made further accessible for a broader public.

Scientific cooperation in the framework of the TMAP is an indispensable element to assess the status of the Wadden Sea ecosystem. It is essential for two goals of policy and management: the capability of providing evidence for man-made causes, and the capability of interpreting and predicting the reactions of the ecosystem correctly.

The 12th International Scientific Wadden Sea Symposium discussed these issues under the title 'Science for Nature Conservation and Management'. The symposium which was hosted by Germany (§29 SchD 2005) was attended by over 270 scientists and illustrate impressively the important role of scientific cooperation for Wadden Sea management. The following strategic recommendations to the TWSC were agreed upon:

1. Develop one comprehensive scheme for the conservation and sustainable development of the trilateral Wadden Sea in order to implement the various EU Directives more effectively. Such a scheme will serve as an example for the wider EU. In this context it is important that:
    a. The trilateral Wadden Sea is considered as a sub-region according to the Marine Strategy Framework Directive and
    b. The definitions of "Good Ecological Status / Favourable Conservation Status / Good Environmental Status" as respectively required by the Water Framework Directive / Habitats and Species Directive and the Marine Strategy Framework Directive have to be harmonised to ensure that also the implementation of these Directives is harmonised.
    c. The Ecosystem Approach should be applied to Wadden Sea policy and management.
    d. We must build on existing trilateral structures, agreements and instruments, including monitoring and data handling.
2. Extend the trilateral cooperation area by adding the adjacent off-shore conservation areas, because there is a strong relationship between the Wadden Sea and these areas and treat the inshore and near offshore areas as a single system.
3. The monitoring efforts of the trilateral area should not be restricted to the minimum requirements resulting from the Natura2000, Water and Marine Strategy Framework Directives as these do not provide sufficient information for a proper and scientifically sound ecosystem management of the Wadden Sea. Accordingly, the TMAP should be expanded to develop trilateral strategies and methodologies for monitoring and assessing the ecological values of in particular the subtidal area. Furthermore, a large effort should be given to the development of conservation objectives which underpin the whole management process.
4. Where necessary and possible restore the natural structure and functioning both to increase resilience to the impacts of accelerating sea level rise and to enhance sustainable economic development, taking due account of geo-morphological conditions.
5. The natural landscape of the Wadden Sea and the cultural landscape of the adjacent land area must be regarded as complementary parts of the same landscape. Therefore cooperation between the cultural and environmental heritage should be improved.
6. Governments need to join and reinforce ongoing international efforts to prevent alien species introductions and develop an alien species management strategy for the Wadden Sea.

In addition, a catalogue of technical recommendations was agreed upon, which have been forwarded to trilateral expert groups.

International Cooperation

As a result of §25 of the Schiermonnikoog Declaration an agreement including a comprehensive work plan was concluded between the Wadden Sea Cooperation and the WWF West African Marine Ecoregion (WAMER) for activities that aimed at exploring the connections between the Wadden Sea and West Africa and areas of cooperation and mutual support with a view to conclude a Memorandum of Understanding (MOU) for a partnership between the Wadden Sea and the West African Marine Ecoregion after the finalization of the project.

A work programme for the period 2008 – 10 has been concluded with the WWF WAMER. The programme is directed at supporting three activity fields: (1) Appropriate measures for the management of birds and their habitats, (2) A programme of monitoring, research and risk management of birds, (3) Programme for information awareness and education. The programme is ongoing and has so far only produced intermediate results.

The WWF WAMER is partner in the "Programme Régional de Conservation de la zone Côtière et Marine en Afrique de l'Ouest" (PRCM) in which the seven West African states and also the IUCN and Wetlands International are partners.

The CWSS attended the biannual PRCM Forum meeting in Bissau, Guinea-Bissau in February 2009 and presented the Wadden Sea Cooperation as a model for the cooperation on and protection and management of a shared coastal area.

A Memorandum of Understanding (MoU) was signed between the Korean Ministry of Land, Transport and Maritime Affairs and the Trilateral Wadden Sea Cooperation in Wilhelmshaven on 30 March 2009 during the opening session of the 12th International Scientific Wadden Sea Symposium. The aim of the MoU is to work together for conservation, restoration and sustainable use of intertidal wetlands; to raise awareness for a coherent conservation of tidal flats at an ecosystem scale; and to establish and expand networks of experts, authorities and NGOs to exchange knowledge and experiences concerning the management of tidal flats.

In the framework of the MoU, the Korean MLTM (Ministry of Land, Transport and Maritime Affairs) and the Getbol Forum organized a bilateral partnership-consolidating event between MLTM and the TWSC in Korea on 17 – 25 October 2009. It consisted of a 2-day workshop (19 – 20 October) and a 4-day field trip (18 and 21 –23 October) to the tidal flats at the Korean west coast. The Wadden Sea delegation consisted of representatives from various fields of expertise such as national park agencies, research institutes, tourism industry, information centers and NGO, as well as the Wadden Sea Forum.

Information and experience regarding various topical policy issues was exchanged with Natural England. Representatives of Natural England participated in the trilateral Climate change conference (2007), the trilateral mussel fisheries workshop (2008) and the 2nd Habitat workshop (2008). The secretariat has participated in various conferences and workshops organized by Natural England since 2005 to inform on relevant Wadden Sea affairs and provide input to policy making for the Wash and North-Norfolk coast. The Wash Estuary Strategy Group also participated in the LancewadPlan project. This resulted in the elaboration of a landscape heritage plan for the Wash region.

Wind Energy

The construction of offshore wind installations has continued since 2005. The second Danish offshore wind farm at Horns Rev, which was under planning in 2005, has been made operational in September 2009. The wind farm is located partly within the territorial sea.

There are several plans for offshore wind farms in the German and the Dutch EEZ. In Germany, more than 40 offshore wind farms are planned for the German EEZ in the North Sea and the Baltic Sea. 33 of them have already been approved by the Federal Maritime and Hydrographic Agency (BSH) (August 2009). The construction of the wind farm 'Alpha Ventus' (45 km north of Borkum) started in summer 2008. Six of the 12 wind turbines have been in operation since August 2009.

Already in August 2007 preparatory work for the connection to the German grid has been ongoing on Norderney and around Hilgenriedersiel. To protect the sensitive ecosystem of the Wadden Sea National Park from disturbances, hollow pipes have been laid and lines drilled

horizontally through dunes and other points critical for coastal defence. In the spring of 2008, a hollow ducting structure was completed across Norderney.

The routing of cables from offshore wind farms in the EEZ to the mainland power grid network is under discussion. Four cable connections have been approved by the Federal Maritime and Hydrographic Agency (BSH): 'Windnet' (Borkum West), 'Multikabel' (Nördlicher Grund), 'Sandbank 24', 'OTP' (Amrumbank West, Nordsee Ost).

Two offshore wind energy areas 'Nordergründe' (near the Weser mouth) and 'Riffgatt' (15 km off Borkum) were endorsed in the framework of regional planning program by the Lower Saxon Government in December 2003. Up till now, no further implementation has taken place.

In the Netherlands, the territorial sea north or west of the Wadden Sea has been closed for wind turbines according the National spatial policy plan ('Nota Ruimte'). Currently, there are two offshore wind farms in operation, which are located at the Dutch west coast (off Egmond aan Zee). In the Exclusive Economic Zone (EEZ) north of the Dutch Wadden islands, three offshore wind energy projects have been submitted for a license. These projects are situated just north of the territorial border (Riffgrond area) and will probably be approved end of 2009. The routing of the cables is still in discussion.

International Wadden Sea School

The International Wadden Sea School (IWSS) was established by the Trilateral Wadden Sea Cooperation together with nature conservation organisations in 2003. After a two-year pilot phase from 2003 to 2005, the IWSS has been transferred into an implementation phase until 2010 (§ 28 Schiermonnikoog Declaration).

The objectives of the IWSS are to enhance the awareness for the transboundary character of the Wadden Sea and to support the understanding of the trilateral approach for a long-term protection and sustainable management of the Wadden Sea as a whole. This is done by translating the ideas behind the governmental, inter-regional and local cooperation on the Wadden Sea into the education of the future generation.

With the visitor centres in their role as multipliers of Wadden Sea information as main target group of the IWSS activities, the number of children and adults reached with trilateral Wadden Sea information has increased substantially and this approach of IWSS activities proves to be successful. The Material Catalogue 2009 provides on overview on the information material and educational resources, service offers and marketing material for the network partners, teachers and pupils developed by the IWSS so far. The range and the quality of this material are highly appreciated by the network partners and other Wadden Sea educationists and constitute a unique good offer and at the same time an excellent chance for trilateral Wadden Sea information and education.

4. Focus of the Cooperation 2010 – 13

Status of the Wadden Sea Ecosystem

PROGRESS
The 2009 QSR revealed that much has been achieved in the past decades with regard to improving the quality of the Wadden Sea ecosystem by working towards the Targets of the Wadden Sea Plan.

Current policies to reduce the nutrient input have been successful in resulted in a decreased load of phosphorus and nitrogen compounds in coastal waters and a decreasing eutrophication status in the entire Wadden Area. Also the input of contaminants has further decreased resulting decreasing contaminant concentrations in the sediments and biota in most parts of the Wadden Sea.

An increase in area of natural and semi-natural salt marshes was observed caused by natural accretion, phasing out of grazing and artificial drainage, and by outbanking of summer polders.

The Tidal Area is still characterized by a high degree of natural dynamics; the area of natural mussel beds increased in the Dutch Wadden Sea and seagrass beds are beginning to recover. At present, there is no indication of major changes in macrozoobenthos biomass, abundance and species composition with regard to effects of climate change or reduction of eutrophication.

The quality of habitats has increased in the last decades resulting in, e.g., an increase of some migratory bird populations. The harbour seal population is healthy and viable, and continued to increase after the 2002 phocine distemper epidemic, and also a growth of the grey seal population was observed.

Thus, the QSR gives some reason to be optimistic, but there is also cause for concern which should be in the management and policy focus in the forthcoming years.

ISSUES OF CONCERN
Although there is a general trend in decreasing inputs and concentrations of pollutants in the Wadden Sea, some sporadic or local events of increased concentration of pollutants have been observed and some hot spots of contamination (such as the estuaries of Ems, Weser and Elbe) will also require further management efforts in the future. Increased riverine inputs of heavy metals, DDT, lindane and PCB resulting in elevated concentrations in blue mussel and bird eggs were observed in 2003 / 2004, probably as a result of the Elbe flood in 2002. In addition, elevated concentrations of nickel and zinc in blue mussels in the Ems-Dollard area, a lindane peak in blue mussel and bird eggs in the Weser-Jade area in 2004, and increase of PCB and DDT levels in bird eggs near Delfzijl in 2004-2008, as well as an increase of toxic PCBs in bird eggs in the Dollart area and inner German bight in 2008 were observed, probably as a result of diffuse input or remobilization from old deposits.

The Target of a Wadden Sea without eutrophication problems has not been reached yet; therefore, policies to reduce nutrient input must be continued. Regional differences with regard to the eutrophication status have to be considered in regional assessment and management in accordance with the Water Framework Directive.

There is lack of understanding of the consequences of climate change for biodiversity, food web processes and ecosystem functioning. Warmer temperatures facilitate the spreading of warm-water species such as the Pacific oyster, and may also affect the recruitment success of blue mussels and their predators. In addition, future knowledge will be necessary to tackle

the question how present trends (climate change, de-eutrophication, proliferation of alien species) interact. Strategic research topics need to be defined for these issues.

There is a growing concern that alien species may have a negative impact on biodiversity and may alter the state of the ecosystem. Management of alien species should be carried out in an ecosystem context: development of an alien species management plan for the Wadden Sea with specific targets and measures, consistent and harmonized with the overall European Strategy on Invasive Species and other instruments.

An enhanced sea level rise will also affect salt marsh and dune habitats. Over-stabilization in dunes and salt marshes has reduced the natural resilience to adapt to sea level rise with consequences for natural habitats and biodiversity. Therefore, management should aim to increase natural dynamics of salt marshes and dunes to enhance the resilience of the Wadden Sea system, by including natural geomorphological processes. With respect to the tidal area, there is growing concern that stronger sea level rise may induce sand starvation in the Wadden Sea, especially in the second half of this century. Apart from furthering natural processes to balance sediment deficits, supporting efforts may become indispensable to maintain the ecological integrity and functionality of the tidal areas. The subtidal area, including the offshore area, with its habitats is an essential component of this system. However, there is still lack of knowledge about these habitats and how to protect and manage them in a proper way.

The ecological situation of the estuaries still is an issue of concern and the instruments in the WFD and HD should be implemented by developing specific management plans.

The negative trends in some population of breeding birds have become more dominant compared to the QSR 2004, most obvious in waders, but also in shellfish- eating species, and beach breeding species, and suggesting that the conservation status in many species during their life cycle has become worse recently. The background for this decline is only partly known and is related to less favourable food availability, poor breeding performance, increased predation, and disturbance by outdoor recreations, the latter in the case of beech breeding species. The impact of other factors, such as changes in salt marsh management, climate change, sea level rise including floods, or changes in the ecosystem, are largely unknown yet.

Long-term trends for migratory birds reveal some improvement in the development of several species. Species which show an increasing trend also have increased in their overall flyway population. Species with decreasing trend mainly breed in North-, Central- and Western Europe, many of them using inland polder areas and mussel beds for feeding in the Wadden Sea. There are some indications that overfishing, as well as insufficient large roosting and moulting areas affect numbers and distribution of migratory birds.

The numbers of grey seals and harbour seals observed in the Wadden Sea have increased over the last years. The question may arise whether and at what point the population may reach the carrying capacity of the area and biological regulating processes will occur (resulting in lowered reproduction and survival, a stagnating growth rate, increasing prevalence of parasites and diseases). General issues of concern with regard to marine mammals are increasing disturbance through noise (e.g. offshore wind farms) and disturbance. Especially insights into the cumulative effects of the various factors are lacking.

Focus Policy Areas for the Trilateral Cooperation 2010 – 13[4, 5]

The policies and management initiatives to control and resolve the activities which were a threat to the Wadden Sea a generation ago such as pollution, land reclamation and disturbance from recreational activities have been successful. Today´s challenges require a broader approach and response. The character and scale of the problems has become more complex for example in relation to climate change and many of the significant problems ensue from activities outside the Wadden Sea Area.

It is therefore necessary to develop policies in the forthcoming period to address these challenges within a common framework to fulfil the objectives of the Joint Declaration, which are to achieve a natural ecosystem, its functions and characteristic biodiversity; resilience to climate change and other impacts; maintenance of the landscape and cultural heritage; sustainable use as defined by the Convention on Biological Diversity and the Habitats Directive; and public support for the protection of the Wadden Sea. But there are also many aspects on which there is only limited knowledge which has to be expanded prior to developing policies. This knowledge basis must be enhanced in the coming period. This must be followed by the continued monitoring of the system and assessment of the information to be able to continuously verify and correct, as necessary, developments. In general the Trilateral Cooperation could increase its effectiveness by strengthening its profile through enhanced communication and networking, also including the IWSS activities.

The policy focus areas for the forthcoming three year period have also taken account of the strategic recommendations of the 12th International Scientific Wadden Sea Symposium, referred to above.

CONTINUING A COMPREHENSIVE ECOSYSTEM MANAGEMENT APPROACH

The management approach of the Wadden Sea Plan has proved to serve the protection and management requirements of the trans-boundary cooperation within an overarching ecosystem approach and must be continued. It is crucial that the habitats which belong to a natural and sustainable Wadden Sea are managed as a comprehensive system based on the Guiding Principle. This is essential to maintain and enhance the adaptive capacity of the system.

Within this overall approach there is need to look at the connectivity between the offshore, the islands and dunes, and the tidal area focusing on the sediment sharing system, to enhance resilience and adaptation to sea level rise, and to look at the management of the estuaries as a part of the Wadden Sea ecosystem.

KNOWLEDGE BASIS

For several of the important future trilateral policy fields (climate change including its impacts and possible adaptation, alien species, conservation objectives) the knowledge basis is insufficient. It is essential to extend the knowledge basis of the sub-tidal area and the offshore encompassing critical habitats for the entire system and the understanding of how to protect and manage those in an appropriate way. It is further essential to gain knowledge about the sediment budget. In addition the understanding of the cumulative effects of disturbance and other factors needs to be enhanced.

[These basic themes require a trilateral research approach. It is therefore necessary to work towards the establishment of a trilateral research agenda, including a trilateral structure for coordination and supervision of trilateral research projects.][6]

[4] To be tuned with Ministerial Declaration.
[5] Study reservation Niedersachsen
[6] Await internal DK clarification

MONITORING AND ASSESSMENT
The Trilateral Monitoring and Assessment Program (TMAP) has been harmonized with the requirements of the relevant Directives and is indispensable for the assessment and reporting of the Wadden Sea resulting in the regular Quality Status Reports and other assessments. The program and the assessment should be continued, and if necessary expanded to better monitor e.g. climate change and its impacts.

HARMONIZED IMPLEMENTATION EC DIRECTIVES
It is important to acknowledge that a broad spectrum of harmonisation already has been achieved with regard to the implementation of the Habitats, Birds and Water Framework Directives and that this has resulted in much added value, in particular with regard to monitoring and assessment at an integrated ecosystem level.

The future harmonisation efforts must focus on outcomes, trends and challenges, resulting from the national implementation of the Habitats, Water Framework and Marine Strategy Framework Directives, including the further development of appropriate integrated common assessment and reporting in the framework of these Directives. Furthermore, it is essential that the Wadden Sea Plan is designed to both inform and influence other parts of Government, particularly those which have responsibilities for the water and marine environment and those whose policies and decisions are likely to have a direct impact on the Wadden Sea ecosystem. To achieve maximum effectiveness these other parts of Government need to play an active part in the further development of the Wadden Sea Plan.

CLIMATE CHANGE, SEA LEVEL RISE AND COASTAL PROTECTION
Dealing with impacts of climate change (higher water temperatures, sea level rise, changes in freshwater regime) will be the main challenge for Wadden Sea future management. The impacts of climate change will affect all aspects of Wadden Sea nature management and therefore require an integrative and long-term ecosystem approach. The main elements for such an approach must be elaborated in the coming period in a Trilateral Climate Change Strategy, encompassing, amongst others, ways to increase the resilience of the system, maintaining safety of people, optimising spatial planning, increasing the flexibility of nature conservation objectives, and increasing the knowledge basis. The latter must be the basis for adaptation policies to be developed and will have to be initiated as soon as possible, preferably in a trilateral context.

INVASIVE ALIEN SPECIES
Although the worldwide implications of alien species have been identified and have been emphasized in numerous international conventions and other legally binding and non-binding instruments, there is an urgent need to develop a trilateral policy on how to deal with alien species in the Wadden Sea. Therefore, a trilateral alien species management plan should be developed, on the basis of trilateral strategic policy principles, to be developed in the coming period. A trilateral management plan should cover, amongst others, the relative importance of various import vectors, impacts of climate change, the relationship with existing conservation objectives, management options, as well research needs.

SUSTAINABLE DEVELOPMENT
(pending the report WSF)

SHIPPING AND SHIP´S SAFETY
(pending discussion MCD on Wadden Sea PSSA Evaluation)

LANDSCAPE AND CULTURE
[The landscape and cultural features are of international value and critical for the understanding of the development of the landscape. A comprehensive draft cultural landscape strategy has been developed in the framework of the LancewadPlan project. This

strategy must be discussed and evaluated by the partner states in order to decide upon whether or not parts of it may be accepted by the TWSC.

The cooperation on landscape and cultural heritage takes place to a large extent outside the Cooperation Area, for which the parties have declared their cooperation. For the specific purposes of cooperation on landscape and cultural heritage the Wadden Sea Area, and an area beyond, has been identified to include the main cultural entities**.** Activities on landscape and cultural heritage should be carried out by, or in close cooperation with all relevant administrative levels and with support of the people living and working in the region][7].

DUTCH-GERMAN WORLD HERITAGE/DANISH NATIONAL PARK

The inclusion of the Dutch-German Wadden Sea on the World Heritage List is a recognition of the outstanding universal value of the Wadden Sea, the recognition of the support of the people and it places a common responsibility on authorities and the wider society to collectively protect and manage this area for present and future generations also on behalf of the world community.
The designation of the Danish Wadden Sea as national park marks an important contribution to raising the international profile of the area.
The Wadden Sea World Heritage and the National Park provide opportunities for sustainable regional development and for engaging with the wider society on many levels such as promoting nature conservation, awareness and education. Future activities in this field should there focus around these designations and integrate already ongoing initiatives in this field. A Wadden Sea World Heritage and National Park Programme should therefore be considered together with the relevant stakeholders.

INTERNATIONAL COOPERATION

The trends for migratory bird species are ambiguous. The international cooperation for flyway management is essential for the management of migratory bird populations using the Wadden Sea. Flyway management demands an international approach. Improved cooperation with West Africa and cooperation with the arctic areas may be considered, bringing existing regional cooperations closer to the trilateral work. This should also include a more close cooperation with the AEWA to benefit from synergies.

The cooperation with Korea in the framework of the MoU should continue to focus on information exchange and capacity building. Also the cooperation with Natural England in the framework of the Memorandum of Intent concluded in 1991 for the collaboration on the Wadden Sea and The Wash-North Norfolk Coast should continue in order to make use of the benefits of information exchange and exchange of management experiences.

GOVERNANCE

The new governance arrangements, agreed upon in connection with the Joint Declaration, replace the existing structures and aim to govern the cooperation in an effective way. Therefore rapid implementation of the new arrangements is essential for the enhancement of work efficiency in the next period.

[7] Study reservation D