Norwegian Nomination 2003 – UNESCO World Heritage List

VEGADYAN The Vega Archipelago

Introduction

In 1994-96, the Nordic Council of Ministers organised a joint interdisciplinary Nordic project to seek new objects and areas that could be appropriate for receiving World Heritage status. The work culminated in a number of recommendations being put forward in a report entitled "Nordisk Verdensarv/Nordic World Heritage" (NORD 1996:30/31) and these were underlined in a subsequent seminar in 1997 (TemaNord 1997:621). This work was supported by the UNESCO World Heritage Centre, which also part-funded the publication. In a letter to the General Secretary of the Nordic Council of Ministers, dated 4th February 1997, the UNESCO World Heritage Centre wrote:

"This is an excellent report which in addition to evaluating the implementation of the World Heritage Convention in the Nordic Region has identified potential cultural landscapes in the Nordic Region. This project is exemplary for its integration approach to the identification and assessment of both cultural and natural world heritage."

The objective of this work was to raise our eyes above the national sphere and view the natural and cultural values as a whole in a region that has much in common (the five Nordic nations). Particular emphasis was placed on evaluating areas of open countryside (natural heritage areas) with and without cultural content, cultural landscapes and "mixed sites", since at that time no such sites in the Nordic region were inscribed on the World Heritage List; it just held a number of sites and monuments of purely cultural value. Several new, potential cultural heritage sites and monuments were also evaluated.

The work was undertaken by representatives of the national authorities responsible for managing the natural and cultural heritage in the individual nations. Agreement was reached on the recommendations presented. Iceland ratified the Convention as a direct consequence of the work being undertaken in the Nordic project. In the period since the report was published, the various countries have followed up the recommendations to differing extents, amended them, or carried out additional evaluations. Two large areas in Sweden, the High Coast and southern Öland, both in the Baltic Sea region, have been inscribed on the World Heritage List. Of the areas in Norway proposed in the report, the following four were placed on the official tentative list for Norway submitted on 1st October 2002: 1) the **Vega Archipelago**, 2) Lofoten, 3) Tysfjord and Hellemobotn, and 4) Geirangerfjord and Nærøyfjord in western Norway.

The project has placed emphasis on assessing various gradients, including physical and cultural geography, topography, land forms and geology, climate and salinity, fauna and vegetation, and aesthetics, natural resources and human use over time.

The Nordic region is a part of the world with a great deal of water, fresh water, brackish water and salt water. The Gulf Stream has decisive influence on large parts of Scandinavia. The long coasts bind the nations together and the coastal fairways were for a long time the most important lines of communication linking the peoples inhabiting the Nordic region, and were also of great significance for their contact with the rest of Europe and beyond.

The peoples of the Nordic region have lived close to nature and exploited it in their struggle for existence. The Nordic landscape is still in a relatively undisturbed state, substantially more pristine than many other parts of the world. A Nordic perspective on natural and cultural values automatically implies taking a holistic view and taking into account natural resources.

The coastal landscapes in the Nordic region vary greatly, from benign and friendly to wild and extreme. In pact with the bounties of nature in the shape of climate, geography, topography and a basis for earning a living, a variety of coastal cultures have been formed and have evolved over time, some with many features in common, others with very distinctive features. Some people have found a basis for living and working in the outer archipelagos fringing the ocean, on the border between sea and land where biological productivity and diversity are particularly high, but where the weather can be extreme, on the brink between life and death.

The **Vega Archipelago** was, and still is, one such area. This unique area was evaluated as a potential World Heritage Area in NORD 1996:30/31. That report compared the Vega Archipelago with other archipelagos in the Nordic countries and proposed that it be considered for nomination in combination with the Lofoten Islands. However, the area has since been re-evaluated on an independent footing, as has Lofoten, which now figures separately on the tentative list of Norwegian nominations.

Oslo 20th January 2003



1 Identification of the Property

1a. Country

Norway

1b. County, borough

Nordland, Vega

1c. Name of Property

Vegaøyan - Vega Archipelago

The *Vega Archipelago (Vegaøyan)* is centrally located on the Helgeland coast, the southern part of the county of Nordland. It is defined here as the actual property hereby nominated for inscription on the World Heritage List. The property is delineated such that it embraces the islands and areas of sea north and west of the main island of Vega, along with certain areas and parts of the coastal strip on the main island. The remainder of the main island of Vega, along with the islands south-east of the main island, are not part of this property thus defined as the *Vega Archipelago (Vegaøyan)*, but are situated in the buffer zone of the nominated property (*Annex 1, Map A*).

1d. Precise location

65° 31' – 65° 59' N 11° 15' – 12° 10' E



1e. Maps

Annex 1	
Boundary of area proposed in 2003	Map A
Bedrock geology	Map B
Quaternary geology	Map C
Topographical map showing the strandflat	Map D
Egg and down sites	Map E
Status of protected areas in 2002 (nature and cultural history reserves)	Map F

Annex 5

Topographical maps. Scale 1:50 000 (Nos. 1726 I-IV)

1f. Areas of property proposed for inscription and proposed buffer zone

Total area of property:	103,710 ha
Area of sea:	96,880 ha
Area of land:	6,930 ha
Total area of proposed buffer zone:	28,040 ha
Area of sea (buffer zone):	18,610 ha
Area of land (buffer zone):	9,430 ha

(margin of error for total area \pm 30 ha)

Description of the boundaries of the nominated property, the Vega Archipelago -Vegaøyan (Annex 1, Map A):

The demarcation is determined by the topography, biology, cultural history and present-day land use. On the main island of Vega, the boundary follows the agriculture areas, nature areas and areas for open-air recreation defined in the current Municipal Master Plan. The geographical delimitation of the individual holdings, called "øyvær", has influenced the demarcation of the outer limit of the property. The Vega Archipelago (Vegaøyan) embraces 15 "øyvær" (an "øyvær" is a physical and social entity consisting of one or more islands).

The boundary is demarcated as follows:

It is drawn as a straight line between the following islands, islets and skerries, starting from Ervikodden on the south-west coast of the main island of Vega to Muddværet via Gåsflesa, Steinan, Oksknausen, Langskjæret, Nova, Kjeggruva, Kvannflesa, Krappskjæret, Falkflesa, Andersmorten-skjæran, Kinnarøya, Buholman, Hestholmen, Buøya, Trollholmen, Kvigholmen, Ånskjæret, Indre Hilholmen to the north-west point of Vega.

Along the north coast of the main island of Vega, the Vega Archipelago (Vegaøyan) embraces all the nearby islands, along with the Kjellerhaugvatnet and Holandsosen Nature Reserves (*Annex 1, Map F*). From Sørneset on the west coast, the boundary follows the eastern foot of the mountains across central Vega back to the starting point at Ervikodden. The rest of Vega east of this boundary, together with Ylvingen and the small islands to the south-east, form the buffer zone. The radar on the summit of Gullsvågfjellet is not included in the proposed World Heritage Area and excludes a circular area with radius of 100 m.

2 Justification for Inscription

2a. Statement on the significance of the property

The unique landscape of the Vega Archipelago, the islands and surrounding shallow water, the seascape, is a living testimony to the everyday life and labour of the people who have lived in this extremely exposed archipelago. This is a stretch of coast where a strandflat, a topographical and geological formation, is specially well developed. As a whole, this exceptional area comprises an open cultural landscape consisting of a mixture of sea and land. In addition to a multitude of reefs, underwater rocks and shoals, there are more than 6500 islands, islets and skerries within the property.

This exposed seascape contains fishing villages with breakwaters, quays and warehouses, sites with "eider houses" where eggs and down were collected, the homes of fishermenfarmers with dwellings, outhouses, boathouses and islets where livestock grazed and hay was scythed, and navigational aids like lighthouses, lights and other beacons to aid seafaring in the perilous, foul waters. All told, these elements shaped by people relate a long history of use under exceptional living conditions controlled by the climate and the basis endowed by nature.

Nature has shaped the people, and over 10,000 years the people have helped to mould the nature into a special landscape with a unique cultural content. A landscape which, to a greater extent than any other coastal landscape on the strandflat, can display relics of the way the coastal inhabitants have traditionally used the sea and the land down the ages. This exceptional landscape is characterised by frugal cultivation, settlements specially accommodated to the knowledge gained by the inhabitants of the natural conditions locally, and small traces of the laborious toil of generations on the very fringe of the ocean.

The unique cultural landscape of the Vega Archipelago holds a multifarious natural and cultural heritage linked to the sea and the land. For the fisherman-farmer, the sea and the land constituted, and still constitute, a combined resource base. The land was, and is, his permanent, though marginal, anchorage. The sea was, and is, his rich, though perilous, arena for life and work. The values in the area are representative for this geo-cultural region that embraces exposed stretches of coast where the traditional livelihood has been a combination of fishing, sealing, collecting eggs and down, and farming. The landscape is also the bearer of distinctive, unique cultural traditions that can only be associated with the natural conditions on the strandflat, the shallow sea and the bountiful biological production in the waters washing the Helgeland coast.

The universal value of the Vega Archipelago lies in the clear handing down of history and cultural traditions within an island realm integrating both land and sea, where new commercial enterprises have had little impact on this landscape, which embraces both land and sea (seascape), in a way that breaks the continuity back in time. The area is not representative for species threatened by extinction, huge monuments, or the ingenious creations of architects. The values and qualities can be linked to:

- the unique topography and geology with the best-developed strandflat (*see chap. 3a*) containing thousands of islands offering space for marginal settlement and farming, lofty coastal mountains providing secure landmarks along the fairway and for the people on the islands, an area that clearly illustrates the tremendous importance of the Gulf Stream in making it feasible to live on the Arctic Circle;

- the rich natural resources which, down the ages, have given the area cultural and social importance, and political power, in a region extending far beyond the coast of northern Norway;
- the early permanent settlement and long, unbroken use of the sea and the land in combination, a use that has been accommodated to the natural conditions, has helped to enhance the biodiversity and is representative for the archipelagic areas within a clearly defined geo-cultural region - "Life on the Edge";
- the seascape out towards Egga, the edge of the continental shelf, was the "arable field" of the fisherman-farmer, frequently harvested at the risk of his life despite the many navigational aids in the archipelago, such as lighthouses, lights, beacons and stakes; safe seafaring and fishing in these foul waters depended mostly on knowledge of the weather, currents and unmarked fishing grounds passed down from one generation to the next.

Ever since the first people settled close to the ice margin, the meat, eggs and down of a variety of birds have been an important resource. The eider holds a foremost position here and represents an important element in the cultural traditions and resource base of the coastal inhabitants. The unique millennium-long tradition of maintaining egg and down sites, where the inhabitants of the archipelago provided ideal, protected homes for nesting eiders, is an example of a unique interplay between people and a non-domesticated species of bird. The eider is a wild bird which, in the breeding season, has voluntarily sought the protection of people to gain a haven from storms and predators as the best way of producing the largest possible number of viable chicks. This symbiotic contact between man and bird long ago changed the attitudes of the people towards this species and also the behaviour of the eiders towards people. Both derived value and pleasure from the contact. As a form of gratitude for their effort, the people received eggs and down, and at the same time developed a personal relationship with the wild "tame ducks", looking forward to meeting them the following year.

This is an example of one of the relationships between nature and man that gives the cultural landscape of the Vega Archipelago its character and outstanding universal value. The property is, moreover, excellent for carrying out research on a range of topics linked with natural history and cultural history.

This is an island realm close to the Arctic Circle which, above any others, represents the epitome of the island communities found in the archipelagos formed by and on the strand-flat along the coast of Nordland. It stands out as a cultural landscape, and a seascape, where the cultural monuments are not magnificent, but where traces are present everywhere and bear witness to 300 generations of inherited knowledge, toil and joy. It testifies to a dynamic interaction between nature and man over time in a marginal area of the world.

The Vega Archipelago stands as a testimony to the life and work of the inhabitants of an extremely exposed coast. The people have created a cultural landscape of fishing villages and farms, where buildings and traces in the landscape relate the history of the living and working conditions of the people. Nature has shaped the people and the people have helped to shape nature in a perpetual interaction, creating a unique landscape with unique traditions.

(Annex 2, Photographs)

2b. Comparative analysis

The Vega Archipelago in a Norwegian context

The full length of the Norwegian coastline is all of 83,000 km, between 58° and 72° N. Characteristic elements in the landscape of the long, mountainous coast are numerous fjords extending far into the hinterland, a multitude of coastal islands and large archipelagos. The diversity is great. The country has always been oriented towards the sea, and local communities have gradually evolved with similarities as well as dissimilarities and specialities, depending on the local natural resources.

On long stretches of the coast from Stavanger (59° N) to Magerøy (72° N), tectonic processes and various forms of erosion have shaped a topographical feature called the strandflat. Groups of islands and archipelagos are strung out along parts of the strandflat coasts. The strandflat is best developed and broadest in Helgeland, around 65° N, and the Vega Archipelago, made up of more than 6500 islands, islets and skerries, occupies the heart of this area. This district became inhabited shortly after the last Ice Age, and the present cultural landscape is a result of 10,000 years of human influence.

The Vega Archipelago in a Nordic context

The area has previously been evaluated in a Nordic context as part of the "Nordic World Heritage" project (*Nord 1996:31*). A group of experts from the Nordic countries concluded that the Vega Archipelago, because of its extreme exposure to the Atlantic Ocean, its unique topography and its unique cultural content, could not be likened to any of the few Nordic coastal landscapes that were appraised as having outstanding universal value.

The Vega Archipelago contains a representative selection of elements that are special for Nordic coastal culture. The area is characterised by a hard climate, topographical peculiarities, rich fish resources, continuous settlement, a coast-related power structure based on fisheries, traditions linked with the exploitation of other marginal natural resources, the fisherman-farmer's combined use of the sea and the land, and the operation of egg and down sites.

The Helgeland coast is far more extreme than the exceptional cultural landscapes of the archipelagos in the brackish-water Gulf of Bothnia, which represent different natural and cultural values since climate, topography, salinity, natural resources and traditions distinguish them clearly from the Vega Archipelago.

The Vega Archipelago in a European context

The Vega Archipelago differs very clearly from other large areas of shallow water in Europe through the occurrence and size of the strandflat and its considerable extents of rocky sea bed, where algae grow profusely, alternating with stretches covered by light-coloured shell sand. The clean water (good visibility), exposed location and strong currents mean that the lushness and diversity of the aquatic environment differ from the other areas, which are much more characterised by a greyish-brown, muddy substrate, poorer visibility and less lushness.

The Outer Hebrides, Orkneys and Shetlands, which once had a Nordic population, do have some features in common, having both Nordic nature and Nordic culture. However, a strandflat topography is absent and, unlike the Vega Archipelago, they lack an outer rim of islets and skerries to shelter them from the ocean and provide extensive, rich fishing grounds on a strandflat where simple vessels may be used. This is a fundamentally different basis and has resulted in a cultural content that has more dissimilarities than similarities.

The Vega Archipelago in a global context

Viewed in a global perspective, archipelagos as they are developed in the Nordic region, both marine and brackish-water archipelagos, from the polar tracts in the north to the Baltic Sea in the south, are most definitely a Nordic feature. The type of archipelago formed on what has been termed the strandflat is specially rich in life. The largest and best-developed example is in Helgeland, centred around Vega where the coastal inhabitants have lived off these rich, yet perilous, conditions for a long time.

The islands of western Canada, the Caribbean and the Mediterranean have different land forms, natural resources and climatic conditions that have helped to shape cultural land-scapes and traditions which belong to other geo-cultural regions.

This is also the case with archipelagos on the coast of Chile, in the Pacific Ocean, the Seychelles and Maldives, Indonesia and New Zealand. The topography of the groups of islands near the Equator and archipelagic landscapes in the Southern Hemisphere differs clearly from the Scandinavian strandflat, which has evolved in a completely different geocultural context.

The individual elements in the cultural landscape

The cultural landscape of the Vega Archipelago is complex after 10,000 years of continuous interaction between nature and man. A number of features are rare or outstanding in an international context. Together, they explain why this living cultural landscape is of outstanding universal value.

Land form

The *strandflat* is a topographical feature that most notably occurs along the west coast of Norway, and in Svalbard and Greenland. One of the best developed areas of strandflat in the world is that containing the Vega Archipelago (*Annex 2, nos. 3, 16, 100*).

Climate and ocean currents

The property clearly illustrates the importance of ocean currents (here the Gulf Stream) for the total diversity of species and for human settlement, life and livelihoods in the northern part of the Northern Hemisphere. Coasts at a comparable latitude (with the partial exception of Iceland) belong in the arctic vegetation zones, where the biodiversity is lower.

Geology

The property displays a large number of interesting geological features which result in a unique geo-diversity. The Vega Archipelago is situated within one of the key areas for understanding Caledonian geology. This type of Ordovician granite found here is rare in mountain belts and is characterised as a world-class occurrence.

Terrestrial and marine flora

The combination of the boreal vegetation zone and the highly or markedly oceanic vegetation sections occurs only on the west coast of North America, the southern tip of Greenland, Iceland and the coast of central and northern Norway. All these areas except the west coast of North America are situated in the Holarctic, the largest floral kingdom in the world. Iceland and the southern tip of Greenland are isolated areas and therefore lack some of the flora found on the Norwegian coast. In the context of global-scale aspects of vegetation and ecology, and the floral regions, the vegetation of Vega is unique. The extensive occurrence of calcareous heath is outstanding in a European context, and examples of typical plants are seen in *Annex 2, nos. 84, 85 and 88.*

Clean water, the exposed location and favourable currents support an underwater flora that has a greater diversity of species than other shallow-water areas in Europe.

Terrestrial and marine fauna

The number of bird species recorded (222, 110 of which breed here) is extremely high for 65° N. The world's largest colony of cormorants (*Annex 2, nos. 41-44*) is found within the property, which is also part of one of the most important wintering areas for sea birds in the Nordic region. The property is vital as a staging post for the entire population of barnacle geese (*Annex 2, no. 65*) breeding in Svalbard and wintering in Scotland.

Clean water, the exposed location and favourable currents support an underwater fauna that has a greater diversity of species than other shallow-water areas in Europe.

Historical depth

Land uplift has produced obvious strandlines that give an unusually clear visual experience of the evolution of the landscape over time. Clear traces left by extensive settlement during the Stone Age, combined with the possibility for chronological control, give the area an outstanding potential for further studies of the full history of settlement on the northern coasts.

The use of the area

The settlements and settlement patterns in the area demonstrate physical and social structures that are representative for the most exposed parts of the Atlantic Ocean coast of Norway. The combined occupation of fishing and farming still characterises the use of this area and contrasts with other coasts around the world where occupations are generally more specialised. The social organisation into fishing villages and hamlets owned by powerful individuals who leased properties to tenants was a feature peculiar to Nordic coasts with rich fishing.

Specialised occupations

Historically, the Vega Archipelago has been one of the most important areas for the development and operation of the egg- and down-collecting business. This livelihood survives and the original manual methods are still being used, in contrast to Iceland where it has been modernised and partially mechanised.

Values gained from experiencing the landscape and its attractions

The multitude of low islands dotting the open surface of the sea forms a dramatic contrast to the massive coastal mountains. In the mighty space of the landscape, nature and her forces are experienced in close proximity and strongly everywhere and at all times. This places the life and work of the islanders in a perceptible and mighty reality where unobtrusive physical traces become strong testimonies to a culture subordinated and controlled by nature's dynamism. Clear variations in the seasons, with long, light, summer nights and short, dark, winter days, intensify the impressions and create great variation over time (*Annex 2, nos. 7-10*). The total experience gained from the landscape differs from that of all other archipelagos in the world.

2c. Authenticity and Integrity

Authenticity of the Vega Archipelago

Settlements far out on the shelf bordering the large Norwegian Sea fishing banks were, and are, marginal and extreme in character. Knowledge of currents, the weather, the light, the topography, fishing gear, boats and fishing spots, and dependency on distant markets and social developments are, and were, vital for the use of the sea and for the cultural landscape of the archipelago. The exceptional cultural landscape of the Vega Archipelago is, and has been, marked by periodic fluctuations in the resources of the sea. When fishing was good, the population grew, resulting in an intensive use of the landscape, whereas downturns in fishing brought depopulation, buildings fell into disrepair and farmland became overgrown. In recent decades, most of the area, resulting in problems linked with the formerly grazed areas becoming overgrown and the vegetation changing in appearance. The traditional coastal fishery has also been reduced due to recent structural rationalisation. A long period with a huge increase in the number of sea urchins which extensively grazed the kelp forests has also impacted on local fish stocks.

Nevertheless, on the large scale, the landscape has retained its original character and shows few signs of human disturbance that is alien to the cultural traditions of the region. The property contains no recent, irreversible physical encroachments that are not rooted in traditional practices.

The building style in the area is representative for the geo-cultural region to which the property belongs (*Annex 2, nos. 29, 34, 38, 46, 50*). The architecture follows the traditional building customs of the region with respect to choice of materials, function, form and volume. The farm dwellings are timber built and comprise a complete ground floor and a loft, and are representative of north Norwegian architecture developed in the 18th and 19th centuries. Families who moved out to the islands often brought buildings with them from their homesteads on the mainland. Recycling of buildings and variations in the style of building are therefore characteristic features of this district. The constructions linked with the eider ducks vary immensely and are characterised by imagination, recycling and consideration for the birds. Hard climatic conditions call for frequent maintenance and in this treeless landscape materials available at the time were used. Driftwood, flotsam and jetsam have always been important resources, even as building material.

A decline in the fisheries and the consequent vacation of houses have meant that many buildings in the area are no longer used to the extent for which they were intended. A few entire settlements, such as Skjærvær, have been maintained in their traditional state by the owners and the cultural heritage authorities, and function as local bases for commercial fishermen from the district. Other large groups of buildings are maintained through their seasonal use in connection with their original function as egg and down sites. On a few groups of islands, some buildings are used as holiday houses or in connection with local ecotourism. Others are vacant and offer a great potential for new, sustainable occupations on the islands.

Integrity of the Vega Archipelago

The property has been delimited in such a way that all the characteristic elements in the cultural landscape of the strandflat are represented. It covers (*Annex 1, Map A*):

- 17 sub-archipelagos (groups of islands, islets and skerries with intervening areas of sea), 15 of them being traditional egg- and down-collecting sites
- areas with important botanical and zoological functions on the main island of Vega
- the coastal mountains with strandlines and traces of the earliest settlement; the prehistoric framework around life and occupations in the Vega Archipelago.

Archaeological remains dating from before the Reformation (i.e. pre-1537) are automatically protected under the terms of the Cultural Heritage Act. Bremstein Lighthouse and the fishing village of Skjærvær have been protected by special Protection Orders and are to be preserved unchanged on a long-term basis. Parts of the property (22 %) are protected under the terms of the Nature Conservation Act, which ensures that the natural resources are preserved and utilised in a traditional, sustainable manner. Development elsewhere in the property is controlled by national planning legislation and related municipal provisions directed at the management of natural and cultural values.

Buffer zone

The parts of the main island of Vega that are beyond the proposed World Heritage Area, along with the island of Ylvingen, are defined as a buffer zone. The future use and development of this zone will have a great deal to say for the management of the property. The retention of active farming, including livestock husbandry, on Vega will be essential for the upkeep and grazing of the cultural landscape on the islands (*Annex 2, nos. 11, 24*). Equally, it is essential to maintain local fishing expertise (*Annex 2, no. 27*). Within the buffer zone, it is vital that land use does not impact on the way in which the prehistoric and historic landscape within the future World Heritage Area is experienced.

The buffer zone will be the natural entrance for visitors to the World Heritage Area. Functions like public communications, overnight accommodation, tourist vessels and information will be located here. A development that provides an attractive gateway to the World Heritage Area, possibilities for supervising visitors and co-ordination of services for tourists, where concern for the values in the area is the essential premise, requires that this area be defined as a buffer zone.

Assurance

A Declaration of Intent signed by current users of land and sea within the property commits the signatories to co-operate on the long-term, sustainable management of the landscape in a way that does not alter the values of the property, its integrity or authenticity. This guarantee will be embodied in the Municipal Master Plan and the management plans which will embrace both the nominated area and the buffer zone (*Annex 3*).

2d. Criteria

The unique cultural landscape of the Vega Archipelago is a testimony to 10,000 years of interaction between man and nature. The landscape illustrates how the settlement and use of Nordic coasts have been developed over a long period under the influence of extreme climatic and topographical conditions, varying availability of resources and shifting social, economic and cultural forces and conditions. The landscape of the Vega Archipelago illustrates unique traditions linked to the use of the strandflat, as well as a wealth of cultural elements that are representative for a clearly defined geo-cultural region.

<u>24 (a) (v)</u>

The cultural landscape of the Vega Archipelago illustrates in an outstanding way a form of settlement and land use shaped by many generations of man's adaptation to, and use of, the resources of the archipelago.

The cultural landscape

- The geological and topographical development of the property (the strandflat with thousands of islands, islets and skerries) is outstanding in form and extent.
- The Quaternary geological history of the property offers an exceptional opportunity for chronological control and for research on settlement history and cultural evolution.
- The great extent of the property and its varied exposure result in outstanding variations in cultural traces within a single macrohabitat.
- The unique tradition of tending nesting wild birds ('eider farming') originated in this area and is an example of a sustainable tradition of outstanding universal value.
- The traditional, combined occupation of fishing and farming was representative for the region and helped to make the biological diversity richer than in a corresponding land-scape in a natural state.
- The significant ornithological and marine biological importance of the property in an international context forms the basis for the evolution of a varied cultural landscape with unique traditions.
- The area is a unique example of the importance of the Gulf Stream for settlement along northern coasts in this part of the world.
- The cultural relics within the property are a unique expression of social and cultural development within a geo-cultural region.

3 Description

The cultural landscape of the Vega Archipelago is a unique testimony that can be linked to an unbroken interaction between man and nature through 10,000 years. In the Vega Archipelago, nature has always provided the resources and laid the premises for everyday life and work.

The foundation for the evolution of the cultural landscape is to be found in the productive and, in terms of area, dominant marine environment. The unique combination of strandflat topography, climate, abundant light, ocean currents and bedrock has resulted in marine production that has great significance for the environment on the islands as well as in the nearby deep sea. Considering its northerly location, the property has an unusually high diversity of species, with rich fish stocks and large bird and marine mammal populations. This exposed, open, coastal landscape has a unique and varied resource base that has been exploited since the first people came here after the last Ice Age.

3a. Description of the property

The Vega Archipelago is situated in the Borough of Vega on the Helgeland coast at 66° N in the county of Nordland. The entire archipelago extends over approximately 103,700 ha, the buffer zone taking up about 6900 ha. Approximately 6500 islands, islets and skerries account for some 16,400 hectares of the whole archipelago.

This island realm can be divided into a number of "øyvær", that is to say islands and groups of islands that have been used for fishing, farming and collecting eggs and down. The concept of "øyvær" is fundamental for understanding the distinctiveness and unique cultural evolution of the archipelago and, hence, its relevance in the context of cultural landscapes, despite the present economic situation.

Fifteen of the "øyvær" (Annex 1, Map E) have been legally protected as egg and down sites since the 18th or 19th centuries and censuses show that 59 islands used to be inhabited. One island, Omnøy, is permanently inhabited today, having 2 residents, but some 150 - 200 people live on the islands in summer. 1410 inhabitants reside in the buffer zone in 2002.

Landscape and topography

The landscape of the Vega Archipelago is dominated by a broad area of shallow sea occupied by an archipelago stretching from the mainland far out into the ocean. The strandflat stands in stark contrast to the steep coastal mountains that form the boundary towards the inland region with its alpine topography transected by fjords. The strandflat topography is a characteristic feature of the entire stretch of coast from Leka in the south to Hamarøy in the north, but is best developed here.

Mountains rising from the strandflat form a dramatic contrast to the open, flat landscape of the remainder of the archipelago. These mountains are often encircled by a belt of continuous strandflat relief.

The submarine topography is essentially a reflection of the supramarine topography since, just as most of the islands are flat and low, the sea is shallow and its bed is predominantly gently sloping. Moreover, as a parallel to the few high mountains on Vega and Søla, there are correspondingly deep channels between the shallow areas of sea bed. West of the large shallow-water area (the island realm), the sea bed slopes from the strandflat level down to a continental shelf at a depth of around 300 m.

In the northern part of the area, the islands are strung out in long chains oriented in a pattern that reflects the folding of the bedrock in the Caledonian mountain chain. In the southern part of the area, where the bedrock mostly consists of hard granite, there are high mountains and an archipelago comprised of more rounded islands scattered across the strandflat in a more haphazard fashion.

Settlements and other traces of human activity vary in size and degree of exposure, from Stone Age habitation sites that are scarcely visible to huge 20th century constructions, like breakwaters and lighthouses. On the low, treeless islands, fishing hamlets, quays and warehouses, groups of boathouses and isolated farms stand aloft in the landscape.

The total impression is of immense contrasts, with a magnificent, exposed, coastal landscape containing sheltered areas where broken terrain with straits, inlets, green islands and buildings produce a varied, small-scale landscape.

The thrills to be experienced in the landscape are enriched by the great seasonal variations, ranging from light summer nights bathed in virtual midnight sun to dark winter months with short days and frequent displays of the northern lights (aurora borealis), (*Annex 2, no. 2*).

Bedrock

The bedrock in the Vega district belongs to the western part of the Caledonian mountain chain, which stretches from southern Norway to the Barents Sea in the north. This chain was formed around 400 million years ago at a time when the Baltic and Laurentian Plates were being pressed against one another. The rocks forming Vega are remnants of the North American continent (Laurentia) left attached to the Baltic Plate after the continents drifted apart again.

World Heritage Convention - Norwegian Nomination Vegaøyan – The Vega Archipelago 2003-01-17



Figure 1. Geological map showing the origin of major allochthonous rock units that constitute the Scandinavian Caledonides. The rocks of Vega, which belong to the uppermost thrust sheet, are exotic to Baltica. Prior to formation of the Caledonian mountain belt, these rocks resided near the margin of the Laurentian continent (North America & Greenland). As a result of continent-continent collision between Laurentia and Baltica (about 400 million years ago), the rocks were detached from their original roots and were thrust hundreds of kilometres onto Baltica, where they have remained since then. During subsequent opening of the North Atlantic, the rocks were stranded on Baltica, forming a remnant of Laurentian origin.

In the northern part of the property, the bedrock consists of metamorphosed sedimentary rocks, including marble, calcareous schist, mica schist and subordinate calcareous conglomerate.

Southern parts consist of a homogeneous, grey Ordovician granite formed 475 million years ago. It engulfed older rocks that were not entirely melted and their remains can be seen as dark patches, irregularly dispersed in the granite.

The varied bedrock makes the Vega Archipelago a key area for understanding Caledonian geology (*Annex 1, Map B*).

Quaternary Era

North-western Europe has experienced several ice ages during the Quaternary Era. The last one, the Late Weichselian, had its greatest extent 24,000 - 21,000 years ago. At that time, the ice margin probably reached as far out as the Skjoldryggen Terminal Moraine, which is located on the sea bed almost 600 km west of Vega.

Recent data show that the ice sheet varied considerably in thickness. High coastal mountains, like the 800 m peaks on Vega, display a great amount of frost weathering that has left spires, pinnacles and narrow ridges. These are alpine forms that are typical of mountains that have not been buried by ice, and indicate that the highest peaks in the area extended over the ice sheet during the last Ice Age (*Annex 1, Map C*).



Figure 2. Palaeogeographical map of the area around the Vega Archipelago during the Younger Dryas, about 10,500 radiocarbon years BP (equivalent to about 12,400-12,800 calendar years ago). The map shows the inferred distribution of the continental ice sheet and the extent of land areas above the Younger Dryas sea level. The present coastline is also indicated. Local cirque glaciers outside the marginal ice line and nunataks within the ice sheet are not shown. The figure is based on observations of end moraines and elevated shorelines that are mostly excavated in bedrock. Data adapted from Rekstad (1915, 1917), Andersen et al. (1981) and Bargel (2001).

Strandflat and monadnocks

The Vega Archipelago is part of the unique Norwegian strandflat. This outstanding geomorphological feature was first named and described by the Norwegian geologist, Hans Reusch, in 1894. Its mode of formation became a source of debate, among others, by the American geomorphologist, William M. Davis, and Fridtjof Nansen. The strandflat is essentially an immensely broad wave-cut platform carved out of the bedrock in the transition between sea and land, and stretches from 100 m below sea level to 100 m above sea level. Its huge extent helps to distinguish it from ordinary wave-cut platforms, such as are typically developed on the west coast of the British Isles. It has developed over a period of around 10 million years, mainly through a combination of faulting that produced plateaus, marine abrasion and frost weathering in a region exposed to heavy glaciation. Within the total extent of the strandflat, the area around Vega is one of the locations where it is most outstandingly and typically developed, stretching 50 km out from the mainland.

The strandflat is a topographically monotonous plain forming a shallow sea and a belt of flat land that encircles large islands and stretches in varying breadths seawards from the outer part of the mainland. Archipelagos composed of a large number of small islands, islets and skerries are common on coasts with a broad strandflat. The majority of the strandflat is situated beneath present sea level.

The highest peaks on Vega and Søla are well-developed monadnocks (*Annex 2, nos. 7-10*), features that have survived the erosive forces; monadnocks are common and characteristic land forms on the entire Norwegian coast. They offer shelter from the prevailing south-west-erlies, attract precipitation and are often surrounded by thick superficial deposits, all of which are vital factors determining settlement on this exposed stretch of coast (*Annex 1, Map D*).

Land uplift and strandlines

During the last Ice Age, the Fennoscandian ice sheet expanded greatly and reached a thickness of several hundred metres over parts of Norway. The weight of the ice depressed the land. When the ice melted at the end of the Ice Age, this pressure was relieved and the land began to rise. Vega became ice free early, probably before 13,000 years ago. The sea level then stood 110 m higher than today. As a result of the subsequent land uplift, the sea has formed a series of strandlines (elevated shorelines) which now show up clearly on Vega and Søla. On Vega, the strandlines can almost be read like tree-rings in the terrain. Uppermost is what is called the Main strandline, dating from the Younger Dryas Chronozone (11,000 - 10,000 BP). It is represented as a notch eroded in the bedrock, or as a beach ridge, at the following places:

- Below Trollvasstind-Vegtind and Floaksla on the south side of Vega (90 95 m a.s.l.)
- Below Hestvikfjell and Tårnet in Hestvika, south-east Vega (92 96 m a.s.l.)
- In the pass between Hestvikfjell and Tårnet, where it consists of a belt of rounded stones at 92 96 m a.s.l.
- At Moen, north of Vegtind and east of Gullsvågfjell, are two strandline fragments at 96 m a.s.l.
- On the south coast of Søla.

After the Ice Age, the land in the Vega district has always risen more rapidly than the sea. In the Preboreal Chronozone (10,000 - 9000 BP), it rose at a rate of 3.8 m per century in the nearest area investigated, some 80 km along the coast south of Vega.

Glacial drift

The small islands in the archipelago off the main island of Vega mostly consist of smoothed bedrock and lack superficial deposits.

The mountainsides on Vega carry weathered material in the form of avalanche fans and talus (screes). Two terminal moraines 500 m a.s.l. west of Trollvasstind may have been deposited by a local glacier in Younger Dryas time.

Fragments of flint (probably from Denmark) and of rhomb porphyry from the Oslo district are found up to 50 m a.s.l. These were probably transported by icebergs that drifted with the Norwegian Coastal Current northwards from the Skagerrak during the period when the ice was melting. Blocks of red sandstone were carried westwards by the ice sheet from inland parts of Sweden.

A 6 km long, up to 1 km broad, terminal moraine deposited below sea level stretches in a N-S direction across the strandflat past Vega (coloured green on Map C).

Soils

The granite in the southern part of the area is resistant to erosion and its minerals do not decompose easily. Hence, its weathering and erosion products are mainly sand, gravel and talus deriving from mechanical degradation on steep mountain slopes and along the shores. In contrast, the calcareous rocks and schists in the north are relatively soft and give way much more easily to mechanical erosion. The minerals are also less resistant to chemical breakdown, and the soil developed on this substrate therefore tends to be well developed and rich in nutrients.

Climate

The climate in the Vega district is typified by mild winters, quite cool summers and moderate amounts of precipitation. The mean temperature of the coldest months, December – February, is around $0 \approx C$. The normal annual precipitation is just over 1300 mm, and the growing season lasts 180 – 190 days.

Vega is a particularly windy and stormy part of the Helgeland coast and substantial topographical differences influence the precipitation, wind and temperature.

Thanks to its location in the belt of westerly winds on the east side of a large ocean and washed by a strong, warm, ocean current, Vega has a very favourable climate compared with other areas in the world situated at a latitude of $66 \approx$ N. The Gulf Stream transports warm water north along the Norwegian coast at a rate corresponding to a heat supply of 50 W/m², equivalent to average solar radiation.

Vega's geographical location almost on the Arctic Circle results in light summer nights, verging on midnight sun at the end of June and the beginning of July. This is an important factor for plant and animal life.

CLIMATE DATA FOR VEGA (VALESJØ)							
(Normal va	alue = the av	verage for the p	period 1970-2	000) (pers. com	ım. Johan Anto	nsen)	
	Temper	ature (°C)	Precipitation (mm)		Wind force (Beaufort)		
	2002	Normal	2002	Normal	2002	Normal	
January	0.4	-1.1	177.9	146.7	4.7	4.7	
February	1.0	-1.0	155.7	112.0	5.0	4.6	
March	1.5	0.2	129.3	106.6	4.5	4.4	
April	6.6	2.6	99.3	80.8	4.2	3.9	
Мау	10.8	6.9	35.4	66.1	4.4	3.7	
June	14.5	10.1	41.8	63.5	3.4	3.5	
July	15.1	12.3	31.7	83.7	3.8	3.2	
August	16.0	12.1	58.9	104.2	3.7	3.4	
September	10.5	9.0	149.6	133.5	4.1	3.8	
October	3.1	5.4	74.7	153.2	3.5	4.3	
November	-0.9	1.7	38.2	141.9	3.1	4.3	
December	-0.6	-0.4	75.5	154.0	3.9	4.6	
Av./totals 2002	6.5	4.8	1068.0	1346.2	4.0	4.0	

CLIMATE DATA FOR VEGA (VALLSJØ)

Currents and tides

The Norwegian portion of the Atlantic Ocean Current (the Gulf Stream) originates in the water that flows northwards over the ridge between Iceland and the Shetlands. It has a salinity of 35.3-35.4 psu (practical salinity units) and a temperature of 7-9° C, and follows the outer margin of the Norwegian continental shelf (Egga). It divides further north, some water flowing into the Barents Sea and the remainder continuing along the shelf margin towards Framstredet, between Svalbard and Greenland.

The fresh water issuing from the Baltic Sea and from Norwegian rivers mixes with sea water and is transported northwards along the coast as the Norwegian Coastal Current. This current gradually becomes mixed with the Atlantic Ocean Current so that its water becomes saltier as it flows northwards. The precise direction and velocity of the currents vary with the direction of the wind, snow melting and the influence of tidal water. The average velocity of the Coastal Current seldom reaches 1 knot (ca. 50 cm/s).

However, the most noticeable currents around the Vega islands are east-west tidal currents, which are very strong between all the islands. Since the difference between high and low tide is 1.5-2 m, large volumes of water have to be transported back and forth twice a day through this extensive realm of islands between the shelf sea to the west and the inner coastal waters over the deep channel (the inner fairway) that follows the mainland, and the fjords further east.

The tidal water travels northwards along the Norwegian coast as a wave with a wavelength of 4500 km. It varies with the lunar phase and meteorological conditions. The mean difference between high and low spring tides at Sandnessjøen is 224 cm.

Wave heights

Calculations of the percentage frequency of significant wave height (for 1961-90) at Brakdjupet, south of Vega, show that December – February are the most turbulent months, with wave heights exceeding 3 m on 10 days each month.

Where the area of shallow water ends and the sea bed slopes down to the continental shelf, the waves coming in from the ocean break continually, even in calm weather. Here, large masses of water are pressed up the slope from the continental shelf towards the shallow-water shelf.

Marine flora and fauna

Vega is situated in the north-east Atlantic boreal region. The marine flora and fauna are dominated by species which, viewed from a Norwegian aspect, have a southerly distribution or are distributed along the whole coast, only a small proportion having a distinctly northerly range.

The special kind of landscape in the waters of the Vega Archipelago results in a submarine environment dominated by three types of bottom communities, hard-bottom tidal zone, kelp forest and shell sand. The types of sea bed that dominate are gently sloping, or almost flat, hard-bottom areas interspersed with flat patches of shell sand. Because such large areas of the sea bed in the euphotic zone (where there is sufficient light to support photosynthesis) are composed of rock (hard bottom), this area to a greater extent than other waters we know, is marked by the production of benthic algae (dominated by seaweed). These seaweed systems are ranked among the most productive in the world. A primary production close to 10 kg of plant material per square metre per year is approximately 10 times higher than the productive pelagic coastal systems. In most marine systems, pelagial production is considered to dominate entirely, but in these shallow areas it is thought that the primary production to the pelagial production, shows that the area must be characterised as specially productive.

This production is also of great importance for the environment on the islands and in neighbouring areas of deep water. Indeed, the shallow, soft-bottom areas (including shell sand) will also derive benefit from the production in the benthic algal systems. In addition to the primary production, the belts of seaweed have a high secondary production in the form of large numbers of gastropods and bivalves which, when they die, contribute to the shell sand substrate. Gastropods, bivalves and barnacles which live directly on the sea bed in the shallow, hard-bottom areas help to contribute to the supply of shells to the shell sand.

The submarine environment can be divided into the following types of benthic communities:

Hard-bottom shore in the tidal zone makes up a large proportion of the submarine environment. The rich belts of seaweed in the lowest part of the tidal zone have remained undisturbed by the sea urchins and are able to house a number of small creatures. The zone is a valuable feeding area for eiders and other species that formerly utilised the kelp forests which have been depleted by grazing sea urchins.

Soft-bottom shore in the tidal zone is less widespread and less important (*Annex 2, no. 18*). Sandy substrates house few organisms because of the continual wave movement.

Kelp forest is dominated by cuvie (*Laminaria hyperborea*) along with a dense growth of epiphytes. The kelp forest is the habitat of more than 50 species of algae and 300 species of animals. Gastropods and crustaceans occur in densities in excess of 100,000 individuals per square metre. The kelp forest is an important growing up area for coastal stocks of cod, saithe and pollack. Moreover, top predators like seals, otters, white-tailed eagles, black guillemots, cormorants, shags and eiders also utilise the area for feeding.

Shell sand in the beautiful, white areas of sand among the islands results from the accumulation of shells of gastropods, bivalves, etc. Plaice (*Pleuronectes platessa*) and other fish graze here on mussels, bristle worms and other soft-bottom fauna.

Deep channels contain mud and clay and often have a high sedimentation of organic material that produces a rich animal life. This is a habitat for the common deep-water shrimp (*Pandalus borealis*), which is fished. The number of species of fish in these channels is also comparatively high. For a long time, Sølasundet has been known to be an important haunt for Norwegian spring-spawning herring, and it was here a small remnant survived the collapse of the stock, partly caused by excessive fishing, in the late-1960s. The present, new stock of herring subsequently originated here.

The pelagic community inhabiting the water masses transported northwards with the Coastal Current and east-west with the tidal currents is also important, and will achieve comparatively greater importance where the kelp has been heavily depleted by grazing.

Other habitats in the marine environment in these waters include soft-bottom shores, Lithothamnium bottoms and soft bottoms, and these may have more moderate ecological importance and less extent.

The total marine macrofauna has been poorly studied and only 800–900 species have so far been recorded. Investigations on other comparable sections of coast suggest that the total number of species actually present around the Vega islands is 2 - 3 times higher, i.e. close on 2700. The waters around Vega have long been known as an important area for fishing, and a number of species have been fished commercially. The most important ones have been, and are, cod, saithe, ling, torsk, haddock and redfish (Annex 2, no. 14). Crabs and monkfish have become increasingly important since the end of the 1990s.

A number of changes took place in the marine environment during the latter part of the 1960s and since, but they have not been documented in detail. The following events are nevertheless known to have had dramatic consequences for the marine environment:

- The important North Atlantic herring stock almost completely disappeared.
- The population of the green sea urchin (*Strongylocentrotus droebachiensis*) has risen markedly.
- Parts of the kelp forest have been heavily grazed by sea urchins. Large parts of the sublittoral, hard-bottom areas on the Helgeland coast, and elsewhere, have become barren grounds.
- The eelgrass (*Zostera marina*) has disappeared; the hypothesis was evolved that there was a link between the decline in the eelgrass and the decline in the pale-bellied brent goose (*Branta rhota*).
- The occurrence of intestinal worms (*Pseudoterranova dicipiens*) in the fish stocks increased. The grey seal (*Halichoerus grypus*) is the main host for *Pseudoterranova dicipiens*, which is a parasitic roundworm that reproduces in the stomach of seals and spreads via its eggs through the seal faeces. The roundworm spends most of its life cycle in fish, where it lives in the muscles, and is transferred from fish to fish by predators (seals and fish). *Pseudoterranova dicipiens* may occur in large quantities locally. Studies have shown that almost half the fish in catches made in the Vega district in 1990 and 1992 were infested by these nematodes.
- Increase in the seal population (grey seal and common harbour seal (*Phoca vitulina*)) compared with the previous 50-year period.

Terrestrial flora and fauna

Flora

The Vega Archipelago is situated in the boreal vegetation zone, in the transition between the southern and middle boreal zones. The warm ocean current explains why the southern boreal zone extends as far north as this, right up to $66 \times N$. On the east coast of Canada, for instance, you would need to travel 1800 km further south, to Newfoundland, to find an area with a corresponding amount of heat in the growing season (Fig. 3).



Fig. 3. Vegetation zones (Moen 1999).

The Vega Archipelago is on the northern boundary of the highly and markedly oceanic vegetation sections, characterised by comparatively high humidity, frequent precipitation and small differences between summer and winter temperatures compared with the continental vegetation sections.

The combination of the main boreal zone and the highly or markedly oceanic vegetation sections occurs only on the west coast of North America, the southern tip of Greenland, in Iceland and along the coast of central and northern Norway.

The vegetation in the area displays evidence of agriculture having taken place here for a long time. The landscape is open, and varieties of heath, grassland and shore vegetation dominate. Several centuries of farming marked by the limited availability of suitable areas of land have resulted in a small-scale form of agriculture. The absence of features typical of modern farming is notable and unusual, and the cultural landscape stands out as a product of extensive farming that represents the pre-industrial cultural landscape. Artificial fertilisers have not been used and the soil has been partly built up by adding seaweed.

The most important botanical values are found in the northern part of the archipelago where the bedrock is calcareous and unusually large numbers of species are found. Extensive occurrences of calcareous heath, well-preserved calcareous grasslands, concentrations of rare swamp and aquatic plants, and occurrences of extremely rich fen vegetation have national, Nordic and European importance. The northerly location means that some types of vegetation include substantial elements of alpine species that help to enhance the distinctive qualities of the natural flora and that which is influenced by, or dependent upon, farming. **Calcareous grassland vegetation** contains the highest number of species and is found on non-manured hayfields and grazed meadows on calcareous bedrock. An average of 27.8 species per 0.25 m² was recorded on Lånan, a group of islands in the north, and a corresponding abundance has been found on a number of other islands. Skogsholmen and Omnøya, in the Lånan Islands, seem to have the most significant occurrences. The species composition of alpine plants and oceanic species is most unusual and includes a number of rarities.

Heaths are formed by clearance, grazing, scything and burning. The boreal variety of calcareous heaths found in the Vega Archipelago has an extent that is unique in Europe (*Annex 2, no. 22*). This cultivated kind of habitat contains an unusually large number of species and occurs in the northern and north-western parts of Vega itself, on Sandøya, the Hysvær Islands and other islands north of Vega, from Vallsjø in the west to Tåvær in the east and north to Skogsholmen. A rare sub-species of lesser bedstraw (*Galium pumilum ssp. normani*), whose Norwegian name is "Vegamauren", is found on the heaths on Vega and Sandøya (*Annex 2, no.56*).

Swamp and aquatic vegetation with several rare species is found on the western groups of islands (*Annex 2, nos. 79-82*). The Vega Archipelago is one of the most important areas for the duckweed element (*Lemna* element), including the common duckweed (*Lemna minor*), generally associated with ponds and swamps manured by bird droppings. The 18 species allocated to this element have features in common with members found in Great Britain and have probably been brought by barnacle geese (*Branta leucopsis*) which rest here on their spring migration to Svalbard. The most important areas are Bremsteinvær, Skjærvær and Lånan.

Fauna

The Vega Archipelago is a nationally and an internationally important area for birds, particularly aquatic species, on account of both the excellent natural conditions, which have resulted in large populations and many species considering the northerly location, and the interaction between people and birds over a period of 10,000 years.

A mosaic of highly productive wetland areas with seaweed banks, mud banks, shore pools and salt marshes provides an abundance of nesting, moulting, resting and wintering sites for many sea birds, ducks, geese and waders. 222 species have been recorded, including as many as 36 ducks and geese, and 29 waders. 110 species have been found nesting, or are assumed to nest here.

This extensive area of shallow water, with some 6500 islands, islets and skerries, forms a basis for a remarkably varied and abundant population of sea birds. The eider is the most abundant species attached to the sea, and 10,000 pairs nested in the archipelago around 1900. Their numbers have declined subsequently because the islands have been depopulated and there has been a significant reduction in the egg and down business. The archipelago is also important for moulting and wintering eiders, and 12,000 moulting eiders were recorded in the outer part in 1980.

The Vega Archipelago has the largest breeding population of greylag geese in Norway, estimated at 650 pairs, 450 of which breed on the small islands. Approximately ¹/₄ of the nonbreeding greylag geese in Norway (6000 individuals) moult in the archipelago. A significant proportion of the population of barnacle geese (*Annex 2, no. 65*) breeding in Svalbard rest in the northern part of the property during their migration from Scotland. Majestic white-tailed eagles (*Annex 2, no. 76*) are a commonplace sight in the Vega Archipelago. Very large colonies of black guillemots (*Annex 2, no. 51*) breed in breakwaters and quarries. Almost 4000 pairs of the nominate sub-species of the cormorant breed in the Vega area, 2000 on Nordværet alone, the largest colony in the world. Some 1400 velvet scoters have been observed moulting on the shallow-water sand banks between the Hysvær Islands and Halmøyvær. The Vega Archipelago is also a most important overwintering area for several species of sea birds.

The marine mammals are the most conspicuous of the mammal species in the Vega district. Rich fish stocks support strong populations of Eurasian otters and the two coastal seals, the grey seal (*Annex 2, no. 78*) and the common harbour seal, both of which are found here throughout the year and have pupping and moulting areas among the islands. A number of species of whales and arctic seals are regularly observed within the property and in surrounding waters. The North American mink was introduced to Vega in the 1930s to be bred for its fur, and individuals that escaped formed wild populations that have since proved a great problem for many sea birds and ducks. It has been a great pest in the egg and down sites.

One of the terrestrial mammals, the elk, reached Vega by swimming from the mainland far to the north, via the island of Herøy and the small islands north of Vega. The population has grown and now numbers about 50 individuals, some 20 of which are shot during the annual open season. The hare population (*Annex 2, no. 97*) is sometimes substantial, and some hares are shot. Hedgehogs were introduced in the 1960s.

The northern water vole (*Arvicola terrestris*) (*Annex 2, no. 77*) is the terrestrial mammal that literally has left, and is still leaving, most marks behind it in the proposed World Heritage Area. The species has had a significant effect on the cultural landscape. In some places, it can undermine all the cultivated land, tunnelling in both the soil and the topsoil, and has been, and indeed still is, a problem for the islanders. The population varies and can be very large. When the animals have 'used up' one island, they swim to the next.

Prehistoric and historic monuments and sites (pre-1537 - pre-Reformation)

Many Early Stone Age (Mesolithic) habitations have been found on the older strandlines flanking the mountains on Vega. So far, artefacts have been found at 108 sites, but this is probably just a few percent of the total number of sites actually present. In this treeless land-scape, which was subsequently forsaken when the people moved to lower, more fertile areas, the up to 10,000-year-old remains can be experienced in virtually authentic surroundings. The following are some of the important sites for finds:

- Mohalsen, dated to 9350 ± 270 BP; circular stone rings 80 m above present sea level
- Åsgarden, 8500 BP; 13 visible house sites 60 m above present sea level
- Porsmyrdalen, 7000 8000 BP; house sites 50 m above present sea level
- Porsmyrdalen, 3860 ± 50 BP; settlement site 20 m above present sea level.

Åsgarden had the safest harbour and test pits suggest that the habitation area extends over as much as 2300 m² and contains several hundred thousand artefacts and flakes. Smaller settlements have been found in other locations, and these probably functioned as hunting stations. All told, the many sites where finds have been made relate a unique history of the development of the first communities along the Norwegian coast.

Archaeological finds made on the smaller islands testify to settlement having taken place 1500 years ago and reveal continuity in use right down to the present day.

The following may be mentioned:

- Farm mounds Toften on Blomsøya and Rosøya (house refuse, offal and peat from house walls); Blomsøya dated to approximately 1400 BP
- Clearance cairns Skogsholmen and Kilvær
- Barrows Blomsøya, Åkerøya and probably Skogsholmen
- Slipway for boats Skogsholmen (probably Medieval)
- Eider "houses" found on most islands in many forms; some may be very old
- Harbours and anchorages
- House sites found on most islands; Flovær dates from the late Middle Ages
- Piles of shells Sørvær; probably resulting from baiting related to the Lofoten fishery.

Buildings and settlements (post-Medieval cultural heritage objects)

As many as 56 islands in the area have been, or are, inhabited (see the table below). In addition, individual buildings and groups of buildings not directly related to dwellings exist, or have existed, on many other islands. These include barns, boathouses, storehouses, sheds, cooking houses, fishermen's shacks and eider houses.

ISLANDS IN THE VEGA ARCHIPELAGO THAT HAVE BEEN, OR ARE, INHABITED (17 - 20th centuries, but may have a substantially longer history of habitation)					
1	Mudværet	33	Lånan	48	Olderøya
2	Halmøy	34	Kilværet	49	Bukkøy
3	Bremstein	35	Sørværet	50	Skålvær
4	Søla	36	Skogsholmen	51	Lamøy
5	Fjellsøy	37	Tåvær	52	Engelsøy
6	Grasskjæret	38	Sør-Laukholmen	53	Burøy
7	Laukholmen	39	Nautøya	54	Sønnedøy`n
8	Seingsøya	40	Kvalholmen	55	Landfastøya
9	Purkøy	41	Rognan	56	Flolamøya
10	Lyngøy	42	Magnetholmen	57	Rørøyøy`n *
11	Stakkholmen	43	Stor-Emårsøy	58	Eriksøy *
12	Langøy	44	Liss-Emårsøy	59	Åborsholmen *
13	Skjærvær	45	Sevaldsøy	60	Nord-Dypingan *
14-29	Hysværet	46	Stakkøy	61	Sør-Dypingan *
30	Floværet	47	Lisøya	62	Ylvingen *
31-32	Indre & Ytre Flesan				

* In the buffer zone

The buildings may be scattered with "one house on each islet", as at Hysvær, or more concentrated on the largest islands in the group, such as Skjærvær.

Buildings (recent cultural heritage remains)

Timber has always been the most important building material in the Vega Archipelago. The absence of local timber on root meant that all drifted logs, driftwood, jetsam and material from shipwrecks or boats that had been written off were used. Timber was also fetched from the mainland for building purposes. Buildings vary considerably in style because entire houses were taken from the mainland when people moved out to the islands. They also frequently took their house with them when they moved away.

The climate is testing and resulted in a continuous need for upkeep, as is still the case today. The lifetime for buildings on the outer coast is considerably shorter than for those in dry, inland districts. Hence, no timber buildings here are older than 100-200 years.

A special kind of construction still found everywhere on the islands is the eider house. These are made to shelter nesting eiders and are either individual structures made of flat stones ("e-hus"), or long, low wooden houses with walls and a roof (an "e-bane" *Annex 2, nos. 23, 30, 31*) intended to house several ducks. Upturned end portions of boats, and various constructions made of flotsam, also commonly offer shelter for eiders. Any number of creative solutions based on locally available materials can be found. Although no proof exists, the separate stone nest boxes are thought to be particularly old. The "eider houses" are an unusually distinctive cultural heritage feature of the settlements in the Vega Archipelago.

Dwellings constitute the most common kind of buildings. They are built of logs which generally rest on a stone foundation wall. Their walls are typically clad externally with vertical, wooden planks and their roofs are ridged and mostly slope 32-33°. Most roofs are now covered with roofing paper, but turf was probably used in the past. Windows are usually Empire style (*Annex 2, nos. 5, 38*). Many of the houses are 10.5 m long and 5.2 m broad, and they mostly consist of 1¹/₂ floors. The entrance door is in the middle of one long wall, which is typical for this part of the country and this period in history. The houses are orientated parallel to the shoreline, well away from the sea. The dwellings in the Vega Archipelago are comparatively well maintained. Their design is typical for houses in the outer coastal settlements in Nordland.

The area contains several other kinds of buildings that were essential for the local communities to be able to function, namely, barns, boathouses, warehouses and storehouses on wharves, sheds, cooking houses and fishermen's shacks. Many such buildings have disappeared or are in a poor state of repair because they are no longer needed for their original use. This particularly applies to buildings related to farming.

The place on the shore or on land where the boat was pulled up from the sea was chosen because it offered the best natural conditions in the vicinity. The slipways used today are the same as the first settlers chose, and are therefore very old.

Bremstein Lighthouse, built in 1925, is an important landmark for shipping along the outer fairway, furthest out in the archipelago. The white-belted, red, iron tower is 27 m high and easily recognised. It became automatically operated and unmanned in 1980.

Buildings and remains of buildings in the northern and north-western parts of the archipelago that pre-date 1900 (and post-date the Reformation) were recorded and documented by the SEFRAK programme in the first half of the 1990s (the "eider houses" were not included). They amounted to 193 objects, almost 40 % of which were remains of buildings. The loss of buildings is greatest on the smaller groups of islands. Muddvær and Skjærvær are particularly outstanding in having all categories of buildings fully represented.

The following table shows the pre-1900 buildings or remains of buildings still present in the Vega Archipelago, according to the SEFRAK work:

World Heritage Convention - Norwegian Nomination Vegaøyan – The Vega Archipelago 2003-01-17

	Dwelling	Barn	Boat- house	Wharf store- house	Shed	Cooking house	Fisher- man's shack	Ruin	Misc.	Total
Tåvær	3	1		1		1		4	2	12
Kvalholmen	3	1			1			9	1	15
Kilvær	3	2		1	1	1		4	2	14
Skogsholmen	6	3	2	3	1			10		25
Omnøy	1	1				1		1	1	5
Æmårsøy	1							4	1	6
Stakkøya	1							6		7
Nautøya	1							2		3
Flovær	1				4					5
Lånan	2		1	1				1		5
Sørvær	1	1								2
Mudvær	4	4	3	3	1	1	3	1	2	22
Bremstein							4	12		16
Skjærvær	4	4	1	4	4	1	4	5	4	31
Hysvær	9	2	1	1				11	1	25
Total	40	19	8	14	12	5	11	70	14	193

Farming and animal husbandry

The differentiated use of the islands by fishermen-farmers has created a distinctive cultural landscape where types of farmland have evolved that still bear unique compositions of plant species. An extensive form of utilisation means that the islands are dominated by heaths and various kinds of grassland. Cultivated land makes up approximately 15-20 % of the land area in the archipelago.

The abandonment of farming and fishing, and the depopulation of the outlying parts, have meant that much of the formerly farmed land is now becoming overgrown. In 1998, 20 % of the area was characterised as not or only slightly overgrown. Even so, a great deal of the former cultural landscape remains intact and it is vital that the effort to re-establish farming and fishing and to maintain the biodiversity and natural values of this farmland continues.

Seasonal use helps to maintain some hayfields. Sheep graze a number of islands and a considerable effort is being made to increase sheep grazing in the archipelago.

Collecting eggs and down

People collect eggs from several species of sebirds including geese and ducks and down from eider nests. This used to be a significant livelihood for the islanders, providing 1/3 of their annual income. Nowadays, six of the egg and down sites in the Vega Archipelago are maintained by islanders who have either resumed or continued the unbroken tradition of keeping eiders in a semi-domesticated manner. Their numbers have been rising after the tradition almost died out in the 1970s and 1980s, and several people now hand-clean down to make quilts for sale privately.

In the last two or three years, several people have received some financial aid to cover the expenses incurred in tending the birds, and more say they will maintain and develop this livelihood if they are given an opportunity. They plan to found their own association in February 2003.

The collecting of eggs and down is regulated through a separate set of Regulations attached to the Wildlife Act. At sites where eggs and down have traditionally been collected and which were formerly legally declared as preserves, it is permitted to take eggs from eiders until 1st June. The eggs of several sea birds, ducks and geese are collected for home consumption, and this egging used to take place on a much larger scale, some of the eggs being sold. The most favoured species are gulls, terns, black guillemots, greylag geese, cormorants, eiders and oystercatchers.

Fishing

A total of 84 people are employed in the fishing industry on Vega, 13 % of the total work force. Only 37 of the 73 registered fishermen have fishing as their main or sole occupation. The remaining 36 fish in combination with other jobs. The fishing fleet consists entirely of small vessels, up to 40 feet in length. The most active part of the fleet spends the greater part of the year fishing further north in Norway, in Lofoten and Finnmark. In 2001, the Vega fleet (54 vessels) landed 2394 tons of fish (pre-cleaned weight) to a landed value of NOK 16.4 million. 480 tons (pre-cleaned weight), or 20 %, of this quantity were landed at Vega. Vega has a fish quay at Kirkøy and a processing plant at Igerøy, which together employ 9 people. The property contains eight main fishing grounds, from north to south: Omnøyfjord, Lisøyråsa, Kilværfjord, Hysværfjord, Tåvær, northern Igerøy, Sølasund and Muddværkåsa. In addition, there is a very important, large, continuous area stretching from the Lånan-Bækken area to Bremstein, part of which is within the nominated area. The buffer zone has three important fishing grounds: Bøbukta, Kjulskåsa and Vikadyftet. The most important fisheries are net fishing for cod, haddock, saithe and redfish (all year round), net fishing for halibut (September - December), deep-fishing with a hand-line for cod, saithe and redfish, line fishing for haddock, torsk and ling, and pot fishing for crabs. The crab fishery is concentrated between Holandsvika and Igerøy. Both local vessels and vessels whose home port is elsewhere fish in the area.

Aquaculture

Compared with other local authorities on the coast of Nordland, the aquaculture industry is little developed in Vega. This is due to the natural conditions and the fact that Vega was particularly severely hit by a general rash of bankruptcies in the fish-farming industry in the early 1990s. However, the aquaculture industry is growing on Vega and three new shell-cultivating plants and a cod-farming plant are now operating. Seven shell-cultivating plants, a cod-farming plant and a land-based plant for farming catfish are operating in the buffer zone. A licence to farm salmon and trout has recently been allocated to Vega, and potential locations are Vågøya, Småvær (buffer zone) and Kvalholmen at Tåvær.

Tourism

Within the property, two businesses in the tourism sector are currently open in summer. They are:

- Gåkkå Mathus at Hysvær is a restaurant linked to the former school; it caters for prebooked groups and plans to offer overnight accommodation for a limited number of guests in the former school building
- Øyan Feriesenter on Skogsholmen offers overnight accommodation for 30 guests in the former boarding facilities at the school, and also serves meals in summer.

Additional tourism businesses are located in the buffer zone, and include:

- Ylvingen has two flats in the former school
- **Vega Havhotell** opens in January 2003 and will accommodate 60 guests by the summer of 2004; it has a restaurant and conference facilities
- Vega Kro & Motell has 12 rooms and a café
- Former fishermen's shacks in fishing villages are equipped with simple overnight amenities
- Former school at Kjul is equipped for overnight accommodation

Activities for tourists

Sightseeing

Destination Helgeland and the Vega Tourist Information Office arrange a few trips among the islands in summer. They visit Skogsholmen, the Hysvær Islands, Skjærvær and occasionally Bremstein. Landing does not take place on any other islands, mainly because of shallow water and problematical conditions for navigation and landing.

Efforts are being made to establish a coastal fairway for small vessels ("World Heritage Fairway") in the archipelago and around Vega itself. It is being planned around the values that have led to the nomination of the area for World Heritage status and will introduce visitors to such attributes as the Stone Age history, biological diversity (flora), the egg and down business, protected buildings and coastal culture.

Boat rental

Plans are in hand to organise the renting of boats for use between the various places. So far, Ylvingen, Skogsholmen and Hysvær are ports of call for scheduled services. A local firm operates a hire service with four passenger boats that can take groups of up to 50 persons per boat. Local people also offer transport in smaller boats.

Marked trails

A number of trails have been marked on and near Vega, offering hikes in various kinds of terrain – from Lamøy to the Vega mountains.

A Stone Age Trail has been set out in the buffer zone on Vega, equipped with information signs and a brochure, to show how the Stone Age people lived.

Exhibitions and information

The "É-hus" Documentation Centre for the egg and down business has an exhibition and offers guided tours that give visitors a glimpse into the history of the Vega Archipelago and the egg and down business.

The Coastal Association has a wharf building housing an exhibition showing the coastal culture of the district.

Vega Bygdetun is a rural museum with an exhibition dealing with the fisherman-farmer.

Communications

The fairway has always been the most important communication route for traffic along the Norwegian coast. Before lighthouses, lights and other maritime beacons, not to mention GPS, became common, navigation along the fairway took place with the aid of characteristic features on mountains and their location relative to one another ('me'). Along the Helgeland coast, the mountains on Vega, Gullsvågfjell and Vegtind, are among the most important landmarks for navigators in the offshore waters beyond the coastal islands.

Vessels sailing inshore follow the inner coastal fairway (between the skerries and the mainland) or the outer coastal fairway west of the archipelago. To navigate safely within the archipelago itself calls for considerable local knowledge of currents and weather conditions, even though many islets and skerries are equipped with a variety of beacons, stakes, lights, etc. These are demanding waters.

Vega has four p	permanent, scheduled, boat services linking it with the mainland:			
Car ferries:	Horn – Igerøy (14 km, 6 departures a day)			
	Tjøtta – Igerøy (24 km, 2 departures a week in winter, 7 departures a			
	week in summer)			
Express boat:	Sandnessjøen – Kirkøy (51 km, 2 departures a day (goes through the Vega			
	Archipelago)			
	Brønnøysund – Rørøy (23 km, 5 or 6 departures a day)			

Place names and dialect names

The differentiated land use in the islands is also reflected by many place names. Slåtterøya (Hay-making Island), Sauholmen (Sheep Islet), Værholmen (Ram Islet) and Geitøya (Goat Island) are examples that are repeated in many of the groups of islands.

Local dialect words and place names are a valuable cultural heritage in their own right. They help us to deduce knowledge handed down over the generations concerning topography, natural conditions, historical events, land use, superstitions and legends.

The name of an island in the Fuglevær group, Islandsøya (Iceland Island) has encouraged speculation among some local people that early settlers on Iceland had their roots in this district. The island is on the very fringe of the ocean and has a reasonably good harbour. It would therefore have offered Viking seamen an opportunity to await favourable weather and make final preparations for the long voyage over the open sea. This theory may also explain the origin of the egg and down collecting practice in Iceland; did immigrants from the Helgeland coast introduce it?

Several species of birds figure in the local coastal culture. Species like the pied wagtail, crow, black guillemot, little auk and white-tailed eagle have been given the Christian names of people. Others have local names reflecting their appearance, behaviour, call notes, or superstition related to them. Many place names are based on the birds that commonly used the various islands. All in all, the local use of names demonstrates the close links that have existed, and still exist, between people and birds here in the Vega Archipelago.

Art

In the last century, many painters have gained inspiration from the light and life in the Vega Archipelago. The best known are Bjarne Ness and Even Ulving.

Bjarne Ness (1902–1927) had a family home on Vega and spent his summers here until he was sixteen years old. For the rest of his short life he dreamed of returning. Bjarne Ness died in Paris in 1927, and after his death he was one of the Norwegian artists who was most frequently referred to until the Second World War.

Even Ulving (1863–1952) was born and grew up on Ylvingen, the island just east of Vega itself. He returned here frequently, even as an old man, and his best paintings were motifs from this part of the country.

Tore Engen, Edgar Ballo, Åse Liv Hauan, Dag Marius Hestvik, Leiken Vik, Guttorm Nordø and Oddvar I.N. are present-day artists who derive their subjects and inspiration from Vega and the archipelago. Most of them have been associated with the local art school for children and young people, and live in the area parts of the year.

Music and literature

The foremost island poet is Emelius Knoph Mathisen, who died in 1971. His folk songs describe the everyday and social lives of Vega people. They also take up the depression in the 1960s and 1970s, when people abandoned the small islands, and buildings and facilities fell into disrepair. A book featuring his songs has been published, and it formed the backbone of a cabaret performed most successfully some years ago. Plans are now afoot for a new production based on his texts, to be performed in 2003 or 2004.

Inga Næss has written novels and other books depicting life in Vega.

Superstitions and traditions

Superstitions and traditions found in the Vega Archipelago are typical ones for this part of the Nordland coast. The immaterial cultural heritage contains such elements as:

Supernatural beings and places

The combination of faith in God and superstition held a prominent place in the former coastal culture. Many supernatural beings figured in local superstitions. On land there were the *huldrefolk* (nymphs living inside the ground) who always had to be considered if farming and fishing were to be successful. Good and evil *vetter* (spirits), *troll* (trolls) and *riser* (giants) were other beings figuring in this imaginary world. At sea, there was *Draugen* (the sea monster) who appeared to forebode shipwreck and death. It was also possible to meet *Kraken* (the sea serpent) and *Havmannen* (the merman). Far out in the west, in the ocean, was *Hildringslandet* (the kingdom of the dead), a land that occasionally revealed itself as a mirage.

Rituals

Many rituals and tests of manhood existed, partly in connection with fishing. One of the rituals was that a man had to have sexual intercourse the night before he went out to fish halibut if he was to catch anything and avoid having an accident.

Folk medicine

Examples of local folk medicine are the use of catfish liver oil to cure muscular disorders (it contains cortisone), turpentine and tar gave protection from tuberculosis, and an extract made from seven herbs was a common cure for animal diseases.

3b. History and Development

Prehistory and history

Pioneering period (Vega becomes ice free) 10,000 - 3800 BP (Stone Age)

About 10,000 years ago, three steep islands protruded from the sea on the edge of the ice sheet. It was here the first Vega folk settled in a raw, stormy climate whose temperature in summer was 4°C lower than today. The sea level was 75 - 80 m higher than it is now and the large expanse of shallow water abounded in fish, marine mammals and birds.

The evidence strongly suggests that Vega rapidly became a popular location for groups of marine hunters and fishermen who inhabited the Helgeland coast in the early Mesolithic and that a thriving community of hunters and fishermen lived out here through the rest of the Stone Age. A clear indication of their close attachment to the sea is that their dwellings were located near good landing places for boats.

The raw materials used, the techniques employed and the kinds of artefacts found reveal features in common with the Fosna tradition (defined from Nord-Møre, some 300 km south of Vega) and suggest that the first people came here from the south.

The abundance of resources led to great activity throughout the Mesolithic and Neolithic. So far, Stone Age finds have been recorded at 108 locations on Vega, the majority being habitation sites. Even though extensive archaeological investigations have been carried out on Vega, this figure probably only represents a small proportion of the total number of habitation sites. The large number of Stone Age remains is an important element in the value of the area from a cultural history viewpoint.

The mean temperature in the latter half of the Stone Age is estimated to have been 2-3°C higher than today.

In addition to visible traces in the terrain, fish hooks, sinkers and knives have been found that are very similar in form to the tools used by the present inhabitants of Vega.

The archipelago rises from the sea 1800 BC – AD 1050 (Bronze Age - Viking Period)

Gradually, as the ice retreated, increasingly larger areas of land rose out of the sea and the people inhabiting Vega were able to extend their territory. An archipelago comprised of 6500 islands, islets and skerries slowly evolved.

Archaeological excavations have shown that people inhabited nearby low islands as early as 1500 BP and were on the outer islands from 1000 BP. The first people to visit these pristine islands probably initially established stations used periodically as bases for gathering, fishing and hunting expeditions.

Investigations of a farm mound on Blomsøya (an island in Alstadhaug, just north-east of the Vega Archipelago) tell something about life on the nearby islands around AD 600. Bones found in the refuse dumps show that in addition to fishing, hunting large marine mammals and collecting shellfish, the people also tilled land, kept domestic animals, hunted on land, made textiles and performed other handicrafts. Cod were the most important fish, but herring, redfish, haddock, saithe, torsk, ling and halibut were also caught. Common harbour seals and grey seals were taken. Cormorants, shags, gulls, geese, eiders and cranes were also on the menu. Shellfish, not least periwinkles, were important. Domestic animal bones included those of horses, cows, sheep, goats, pigs and hens, and there are also red deer and elk antlers.

The tradition of keeping eiders as 'domestic birds' goes back a long way. The first account is found in Egil's Saga, which reports that Torolv Kveldulvsson controlled egg sites. About 890, Ottar, a chieftain from northern Norway, undertook a voyage to England where he told King Alfred about egg and down sites in northern Norway. This account was subsequently included in King Alfred's translation of the History of the World, written by Oriosus.

The Middle Ages - the islands become inhabited, AD 1050 - 1536

The small islands began to be settled seriously around 1000 years ago. The first permanent inhabitants were probably poor, landless tenant farmers who left their famine-ridden inland homes. Such farmers had to labour hard to pay rent to the rich estate owners on the mainland, who also owned the islands. One task the landowners required of their tenants was to look after the eiders, thus ensuring an increased production of eggs and down. All necessities that could not be made or grown had to be paid for through work for the landowner. Despite a great deal of toil and many hazards, food was more readily available than on the mainland. In his cadaster from about 1430, Archbishop Aslak Bolt wrote of sealing stations and grazing for sheep in the Vega Archipelago, and Archbishop Olav Engelbrektsson's cadaster from about 1520 also mentions sealing stations.

The Hanseatic merchants gained a foothold in Bergen (a World Heritage City) during the Middle Ages. In 1294, they acquired a trading licence which gave them better terms than others, and they gradually gained control over trade in Bergen, one of the most important items of which was dried fish from North Norway.

Until the Black Death struck in 1349, fish caught in northern Norway were taken to Vågan in Lofoten, where Norwegian merchants purchased them and exported them directly. The Black Death greatly weakened Norwegian society in general, and in Bergen the Hanseatic merchants gradually gained full control over the fish trade. In 1361, all the merchants in Norway, including the Hansers, gained the right to journey north with their wares. Northern Norway (Hålogaland) was the land of great promise from 1440 to 1536.

From the Reformation (1537) to 1814

In 1560, the King decreed that all wares from the North had to pass through Bergen before being despatched further south. Direct export was not permitted and it also became illegal to trade with fishermen who stood in debt to other merchants. This meant that a fisherman became permanently bound to a certain merchant, who was able to set whatever prices he wished. These changes constituted an immense instrument of power that gave Bergen a dominant position along the coast of northern Norway, including the Vega Archipelago.

When the Church, through the Archbishop's See in Trondheim, lost its power following the Reformation, most of the trade through Trondheim lay in depression for almost 100 years. Bergen merchants dominated all northern trade, and north Norwegians themselves journeyed to Bergen with their commodities, or merchants from Bergen traded in North Norway in summer, and occasionally also in winter. The basis for a great deal of the trade was weakened from the end of the 1500s because of new discoveries elsewhere in the world, new fishing banks (including Newfoundland), new trade routes, new commodities and increased competition.

From about 1600, Trondheim citizens began to take over the former Bergen merchants' houses, and set up new ones. This was particularly marked after 1660.

Rørøy on Vega is representative for the trading centres established during this period, and the main buildings there remain much the same as when they were built at the end of the 18th century. Inventories show that the Rørøy trading centre originally comprised 30 buildings, 6 or 7 cotters' homes, a mill and market booths, and had 25 cows and 30 sheep. The property is described as being unsuitable for agriculture, but having rich fishing. The exterior and interior architectural features differ significantly from other housing of the time, reflecting the power, wealth and distant cultural impulses that characterised the 18th century trading centres. Several groups of islands in the Vega Archipelago were owned by the merchant at Rørøy, and others by the Tjøtta Estate.

Following the Great Nordic War (1700-21), agriculture recovered. Russians began trading with Nordland at that time. Around 1770, local merchants were given landlord licences, and this led to several of the local trading centres acquiring great power. In 1813, trade became free and the power links to Bergen ceased, but contacts with Bergen lived on for a long time.

The 19th and 20th centuries

At the end of the 19th and the beginning of the 20th century, agricultural land was in short supply throughout Norway owing to a marked growth in the population. The shoals of large herring that had given work and income to many people had vanished, and after 1900 the Lofoten fishery also hit hard times. Many children were being born and the small farms were too small to be divided up when these were due to inherit their share. The introduction of engines in boats reduced the need for crew, giving fewer jobs in the fishing industry. From 1860 to 1930, 500 people emigrated from Vega to America, the majority between about 1900 and 1925. Others moved to the mainland to seek work.

Around 1930, cod began to be fished with pots in the Vega Archipelago. This fishery became very important for the islands north of Vega. The fish were delivered live to well boats once a week. This fishery continued until about 1980.

A subsistence economy and living on what nature could provide was the norm right up to around 1950 when electricity reached several of the small island settlements. Shortly afterwards, the Government adopted a new centralisation policy (the Nordland Plan) which put an end to settlement in the islands. Schools were closed, scheduled boat services ceased, Government loans for house building were refused and people were given financial incentives to take jobs in newly established industries on the mainland. Structural changes in agricultural and fishery policies made it more difficult to make a living from a combination of fishing and farming. You had to be either a fisherman or a farmer, not a fisherman-farmer. All told, this meant that the basis for the traditional use and settlement of the islands vanished and the inhabitants gradually vacated their island homes.

Despite the difficult conditions, some people continued to live on the islands. It was particularly the oldest generation which upheld the traditions and maintained some of the cultural landscape. A large number of the houses from which people moved were kept in good repair and are now used as holiday houses by those who moved, or their descendants.

The 21st century

People who have their links to the Vega Archipelago display a keen sense of involvement and a strong will to carry on and resume old traditions which have shaped the unique cultural landscape. More and more people are now taking leave from their jobs to live on the islands for parts of the year to look after the egg and down sites in a traditional manner. Vega Borough Council is pursuing projects and plans to increase the utilisation of the islands for grazing and thus prevent the biologically rich, seldom farmland from becoming overgrown. Knowledge is being collected and passed on, and there is broad political consensus locally about the importance of protection through use. This provides great encouragement for reintroducing sustainable farming practices onto the islands of the archipelago in the future.

Review of the vegetation development

Knowledge of the earliest development of the vegetation is limited. The only pollen analytical investigation on Vega was made in a bog near a Stone Age site at Moen, 50 m above sea level. The vegetation development there can be divided into six phases.

The first phase reflected the *early pioneer communities* and was dated to 7010 ± 60 BP. It consisted of open, salt-marsh vegetation with several herbs and shrubs that required a great deal of light, like sea-buckthorn (*Hippophäe rhamnoides*) and common juniper (*Juniperus communis*). The herb pollen derived from the Cabbage family (Brassicaceae), the Sedge family (*Cyperaceae*), the Grass family (*Poaceae*), the Valerian family (*Valeriana*) and meadowsweet (*Filipendula ulmaria*).

This first phase of light-demanding vegetation was succeeded by a phase of *shrub vegetation growing close to the sea shore*. The characteristic vegetation was sea-buckthorn, willows (*Salix* spp.) and juniper, along with grasses and tall herbs such as meadowsweet and nettles (*Urtica*).

The third phase was dominated by birch (*Betula*), suggesting that *dense birch wood* may have been close to the locality about 6830 ± 80 BP.

In the fourth phase, *heath* became established in the area, indicating that domestic livestock were grazing here for a substantial period. The birch wood was no longer as dense and crowberry (*Empetrum nigrum*) and heather (*Calluna vulgaris*) were abundant. Important elements of the present-day vegetation were apparently also formed during this phase since the amount of pollen deriving from sedges, juniper, heathers and ferns has remained fairly stable from this period onwards.

During the fifth phase, the *warmth-loving tree species*, hazel (*Corylus avellana*), wych elm (*Ulmus glabra*) and pedunculate oak (*Quercus robur*) achieved their widest distribution. This warm period is called the *Atlantic Period*. Alder (*Alnus*) also reached its maximum at this time. Alder, wych elm and hazel still grow on Vega, but oak now has its northern limit at 63° N. Birch was the dominant tree species in this period, too.

The final phase extends up to the present-day and is called the *Post-Atlantic Period*. The occurrences of warmth-loving tree species declined, showing that the climate became cooler. Large quantities of pollen from juniper and herbs is again proof of an open landscape. Corn pollen indicates the introduction of arable farming during this phase.

Spruce pollen (*Picea abies*) was also recorded in small quantities in the uppermost layers of the bog, but this was carried by wind from the mainland. Spruce now grows on Vega and in a few places on the small islands, but all these trees have been planted.
Development of the cultural landscape

Settlement and resource utilisation in the Vega Archipelago have been based on a combination of farming, fishing and egg and down collecting from the first few centuries AD up to the present day. The cultural landscape was shaped by the various activities of the fishermen-farmers.

The islands are scattered irregularly across the strandflat. Small concentrations of islands have formed the basis for settlement. Some islands are large and have villages made up of farms, small trading posts and steamship quays. Others are merely a small islet with space for one family. Furthest out in the west are the large fishing villages of Skjærvær and Bremstein, with shacks for many men who fished from there in the fishing seasons. The entire area contains 17 groups of islands that have been inhabited for a long time.

Over the past 2000 years, the mutual importance of the three combined occupations of the fisherman-farmer, fishing, farming, and gathering and processing eider down, has varied according to the availability of resources, the market and the development of new, more efficient vessels and fishing gear. Despite these variations, the everyday activities of the islanders have centred around a subsistence economy based on a broad utilisation of the natural resources in the sea and on the islands. The landscape still largely bears the marks of grazing and hay making, and a settlement pattern accommodated to the down business, small-scale farming and a great deal of fishing.

Life among the islands

It was rich fishing that encouraged people to settle out here on this weather-beaten coast not far from the edge of the continental shelf. Here, they lived in the midst of the food, in contrast to life in the villages along the fjords where conditions were more unreliable and bad weather could ruin the crops for a year or more, causing hunger and want. However, while they obtained their staple diet from the sea, the poor soil on the islands was their larder. It was there the fishermen-farmers on their island farms eked what they could from the land, sufficient to feed a couple of cows and some sheep. They also exploited all the other resources. They hunted the marine mammals, common harbour seals and grey seals, and turned the wild eider into a "domestic bird". This provided them the "Islanders' gold", the precious, soft eider down. Originally, the islanders were not allowed to keep the eggs and down from the eiders. Viking chieftains, the Church, the Government and local merchants successively owned the land in Helgeland down the ages, and the tenants on the islands had to pay rent in the form of eggs and down to be allowed to live there. It was not before the 19th and early-20th centuries that the great majority of the population became the owners of the land they lived on. The tending of the eiders then earned the families a valuable cash income.

The work capacity of the entire family could then be utilised through farming, fishing and the egg and down business. The majority of the food, the clothing and the equipment for fishing was obtained on the farm and through the labour of the family members themselves. This meant that the children had their own duties to fulfil in the household from a very early age. That is, while they were living at home, because as island children they had to resign themselves to living in a boarding school from the age of seven, during schooling periods. Initially, they alternately lived at the school for fourteen days and at home for fourteen days. As time went by, they were only at home at the weekends. In the mid-1980s, the schools at Hysvær and Skogsholmen were closed and the children from the small islands had to move to lodgings on Vega if the family was to continue living on the islands.

The islands differ. Some are in sheltered positions between islets and skerries, others right out on the edge of the ocean, on the shelf, where the agitated waters ring their everlasting, deep tone and the sea bed is laid bare in the troughs when the waves are at their highest.

Life was hard. No-one knew what a day had in store. Down the ages, many people have drowned while fishing, or when their vessel strayed into treacherous waters. This was a way of life that led to a strong faith in God and to superstition, legend, songs and tales.

However, life was also full of contrasts because, while the islanders had their houses tethered with chains to protect them from hurricanes and had to crawl from the barn to the house in winter storms, they could sit by the sunny wall and clean the snowflake-light down on warm summer days. And while in winter they saw the stormy seas crash against the rocks and heard vessels being crushed to matchwood, the islanders could row out on the glass-smooth sea on light summer nights.

Firewood for the winter was always in the minds of the islanders. When they had money, or fish to exchange, they went to the mainland to get wood. Others cut peat for the fire, or found driftwood on the shore.

The boat was the most important means of travel and the most important workplace. It was essential when they needed to go to the main island, Vega, to attend church, find work and shop, or to the neighbouring islands to milk cows, fetch water for the livestock, gather seaweed as extra food for the animals, visit neighbours or take the children to school. It was also necessary when collecting eggs and down, or sealing. The boat was particularly vital for fishing, or when they wanted to journey to far away places (Bergen, Lofoten, Finnmark, the White Sea, Iceland, etc.).

The egg and down business

Wild birds have always been exploited on the coast ever since the earliest days when the first hunters began using the ice-free land on the fringe of the Norwegian coast as the last Ice Age waned. They sought both meat and eggs, and their refuse dumps disclose that their menu figured many species, particularly sea birds, including the great auk (Alca imprennis) and the eider. Feathers and down must also have been used from the early days. By the 9th century AD, these resources had become valuable trading items, being transported over long distances and looked upon as costly resources. It became important to register the rights to eggs and down, and to safeguard them. The places where eggs and down were collected were among the treasures the North Norwegian Viking chieftains controlled. The declaration of preserves was one of the items in the first Norwegian legislation adopted in the 11th century. It was elaborated upon in later legislation, in King Magnus Lagabøter's Land Act of 1248, in the Norway Act of 1604 and subsequent Acts and Royal Decrees in the 1700s that explicitly aimed at safeguarding eiders or egg and down sites. The down business achieved a boost in the 16th and 17th centuries through the new fashion on the Continent and in England to use pillows and quilts. In 1842, a special Act concerning the Preservation of Egg and Down Sites and Eider Ducks came into force, and it was supplemented in 1860. Sites for which Preservation Orders were issued were marked with a large white cross that could be seen from a long distance. The first Norwegian Hunting Act was adopted in 1899 and included provisions regarding the protection of eiders and the preservation of egg and down sites through the public certification of real property. These provisions were retained in the new Hunting Act passed in 1951, but the Wildlife Act of 1981 repealed the certification paragraph, replacing it with a biotope protection paragraph.

Statistics from about 1900 show that Nordland was the most important county for down in Norway, as it no doubt always had been, and that the Vega Archipelago was the single most important district. The sale of eggs and down provided an important supplementary income for many of the absentee owners.

The tradition of keeping the eider as a "domestic bird" is ancient. By preparing good nesting places (building small houses of stones or wood) and protecting the duck from predators, some 1000 - 1400 birds could nest at the largest sites. In turn for this protection, the islanders got eggs for their own use and the down that remained in the nest when the brooding period was over.

Since the islands in Helgeland have been a core area for the egg and down business, it is reasonable to believe that emigrants from there helped to carry the tradition of collecting eggs and down to Iceland. Iceland is now by far the largest exporter of eider down in the world. Icelandic down is cleaned mechanically, in contrast to that in the Vega district where the traditional hand-cleaning process is still employed. Icelandic quilts weigh 0.7 kg, whereas the hand-sewn products from Vega weigh 1.0 - 1.2 kg.

Between 1700 and the 1790s, there were 187 legally preserved egg and down sites in Nordland, 83 of them on the coast of Helgeland. Vega has had 17 egg and down sites, 15 having been legally preserved (*Annex 1, Map E*).

LEGALLY PRESERVED EGG AND DOWN SITES IN THE VEGA ARCHIPELAGO (the last preservation declaration)				
Property	Preserved	Utilised now		
Muddvær	1832	Х		
Halmøy	1876	X		
Bremstein/Bremsteinvær	1836			
Søla	1890			
Hysværøyan I	1891	X		
Hysværøyan II	1834	X		
Omnøy	1854			
Lisøy	1855			
Nautøy	1854			
Skogsholmen	1853			
Kilvær	1812			
Sørvær	1795			
Lånan	1919	X		
Flovær	1812	X		
Indre & Ytre Flesen	1975			

The best sites lay furthest out to sea. Around 100 years ago, the farms on Flovær, Lånan and Halmøy tended approximately 800 brooding eiders each, and the figure was probably higher in the latter part of the 19th century. Egg and down husbandry here accounted for more than half the annual income. It was not unusual for smaller islands to have 400-500 birds; consequently, this form of husbandry had substantial economic importance in providing cash for housekeeping.

It is estimated that around 250 kg of down were produced annually in the Vega Archipelago in the 1890s, a figure which should correspond to some 16,000 brooding birds. At that time, some 1000 kg were produced in the whole of Nordland, 2/3 of this coming from Helgeland. Since the inhabitants abandoned the islands in 1960-1980, the breeding population of eiders at the tended sites has declined and the number of "wild eiders" has risen. The reduction is perhaps also related to a general decline along the entire coast of Norway, the reason for which is uncertain (poaching, mink, etc.).

In 2002, six of the former egg and down sites in the Vega Archipelago are being tended by islanders who have resumed, or continued, the unbroken tradition of keeping eiders as semi-domesticated livestock.

In the last two or three years, several people who tend the birds have received some financial aid to cover their expenses, and more say they will maintain and extend the business if they are given the opportunity to do so.

The large number of eider houses of one kind or another are an important visual element in the cultural landscape on the islands. Small houses which, in their use of materials and design, relate the history of a substantial, unique, specialised and living business.

The "eider year" of the Vega islanders (Annex 2, nos. 15, 66-72)

The eiders return to their breeding area in the archipelago in February and March, and in April they form flocks around the islands where the pairs gradually find their nesting sites. The females are attached to one locality and return to former nesting sites. For several nights, the females (the ducks) and the males (the drakes) go ashore and seek nests. The birds are extremely timid then and very vulnerable to disturbance. After they have found suitable nests, egg laying begins, and it continues through May and into June. The drakes then leave the nesting sites, gather in flocks and go out to the skerries or open sea for their annual moult, during which time they are unable to fly. They do not return until September.

The nests: The natural habit of the eider is to nest among seaweed, on the shore, beneath an overhanging rock or under a juniper bush. The objective of making a nest for the eider is to form an attractive shelter that can meet her requirement for a dry, protected refuge that also keeps the down clean and dry. People gather seaweed at Easter time and lay it out to dry, gathering it in stacks, spreading it out and turning it. The old stone 'nest boxes', the "é-husene", are put in order and a new ring of seaweed is laid inside. The same takes place in the long wooden houses ("e-banene").

The chicks: The newly-hatched chicks are kept warm in the nest for a couple of days before they embark on the treacherous walk to the sea. Great black-backed gulls are particularly keen to catch them. The rest of the summer is spent swimming with their mother, often assisted by non-breeding females. By late July or August, the chicks have grown up and become independent, and the mother starts to moult her wing feathers. In late autumn, the ducks and drakes congregate in their winter quarters. The drake has again assumed his fine, white plumage, the ring has come full circle, and courting begins once more.

The down: The female lays down in her nest to conceal and warm her eggs. The down on her breast loosens from its fixture points and she pushes it beneath and around the eggs. She covers the eggs when she leaves the nest to drink. The colder the area, the more down she relinquishes. While she is incubating her eggs, mink are her worst enemy, but otters, ravens and crows can also cause a great deal of damage at the nesting sites.

Down cleaning: The down needs drying, shaking, rough-cleaning, screening and finecleaning. First, it has to be dried and the biggest pieces of rubbish are shaken loose. Then the down can be put aside until there is time to begin the actual cleaning process. Foreign matter is picked out by hand. Cleaning takes place in a shed, or outdoors in calm weather, because the dust flies around. Grass and other impurities are removed. The fine cleaning is done on a down screen, a frame fitted with a mesh made of fishing line. In Norway, it is reckoned that 50-60 nests are required to give 1 kg of cleaned down, which in turn is sufficient for one quilt. **The quilt:** No quilt fill is as light and emits as much warmth as the down from the breast of the eider duck. It has very special properties. Unlike the down of other ducks and of geese, eider down has tiny barbs that make it cling together in a clump. This gives eider down exceptional insulating ability. Worldwide, some 3000 kg of cleaned down are produced annually. Most of this is now machine-cleaned. On the down-producing islands at Vega, the down is still hand-cleaned in the traditional manner, and it takes a whole week to clean one kilogram of down.

Fishing and hunting

Fishing and the hunting of marine mammals have taken place ever since the ice retreated 10,000 years ago. Finds of Stone Age tools show that the design of important fishing gear like fish hooks and sinkers has not changed much right down to our days.

Investigation of the farm mound on the island of Blomsøy (from AD 600) showed that cod was the most important fish, but herring, redfish, haddock, torsk, ling and halibut were also taken. Common seals and grey seals were caught. For comparison, local reports of fish landed during the 20th century show that the most important species were cod, other gadoid fish, catfish, halibut, plaice and other flatfish.

The fish taken varied through the year. In early summer, saithe fishing was most popular and small boats (17 - 23 foot) were generally used, the tackle being a rod or a ground net. People also caught redfish in summer, for their own consumption, using a hand line. In late summer, autumn and early winter, most people sought herring. Nets were the most important gear and usually the same boats were used for herring as for saithe fishing.

The main fishery was the winter fishery for cod from the Barents Sea, and it took place in Lofoten, some 250 km north of Vega, where the fish spawn from the end of January to some time in April. The second half of the 19th century is generally called the 'fembøring' period after the kind of boat used, a large boat rowed with five pairs of oars. The gear used was nets. Line fishing was most in favour at the beginning of the 20th century, and mainly took place with 'åttringer', boats with four or five pairs of oars. Relatively deep-water, hand-line fishing from small boats has taken place at all times where the fishing grounds were close at hand. In the early days, 'åttringer' and 'seksroringer' (boats with three pairs of oars) were also used for hand-line fishing.

Taking part in the Lofoten fishery has been of great importance to the inhabitants of the Vega Archipelago ever since the Middle Ages. In the 1870s, half the men in Vega took part in this winter fishery. Relative to its population, no other borough had as many fishermen in Lofoten as Vega. About 1870, Vega had 1830 inhabitants and 600 of the men fished in Lofoten. In addition to these, there were the boats from the part of the Vega Archipelago which then belonged to Tjøtta. Right up to 1910, Vega Borough Council held meetings in what was called the Vega Shack in Kremmarvika, at Ballstad in Lofoten. The fishery lasted three months and it was vital to earn money to purchase essential wares that could not be grown or made on the islands. The younger fishermen continued further north to take part in the cod fishery in Finnmark, which lasted until June. In this period, the women had the sole responsibility for looking after the farm and the children on the islands. The interest for the Lofoten fishery has lasted right up to our time, and even though it has become less important, virtually all the active fishermen go there.

Around 1930, fish pots began to be used in the Vega Archipelago to catch cod living among the kelp fronds near the rocky shores. This fishery became very important for the islands north of Vega. Up to 300 tons of live fish were delivered to well boats that came once a week. This fishery continued until about 1980.

At the end of the 1960s, the adult stock of Norwegian spring-spawning herring was virtually exhausted. A small portion of the young herring that originated from the 1969 spawning survived to spawn for the first time in 1973. This spawning stock became divided into southerly and northerly components. The southerly one stayed on the stretch of coast from Stad (in northern west Norway) to the Bodø district (some 150 km north of Vega). While the herring stock was recovering, Sølasundet was an important feeding site for the immature (fat) herring. Large numbers of these fish were recorded throughout Sølasundet and in neighbouring waters west of Vega, initially in 1975. They migrated into these waters in late summer and remained until November. In the latter part of the 1970s, the proportion of mature herring rose. As the herring stock gradually increased during the 1980s, the number of herring in Sølasundet decreased.

In the Vega Archipelago cultural landscape, the rich fishing traditions are revealed by the numerous navigational aids dotting the treacherous waters, the settlements with their fishermen's shacks, boathouses and huts, the breakwaters, and the quays and warehouses.

Fish processing

In olden days, the cod were hung to dry in late winter to await their sale and transport to Bergen in late summer. From the Middle Ages up to fairly recent times, huge quantities of dried fish were sent from North Norway, including the Vega Archipelago, to the World Heritage City of Bergen.

To produce dried fish, the fish had to be cleaned, scraped, washed and tied two and two together before being hung on large, trestle-like racks composed of horizontal rows of logs fixed between supports. The larger fish were generally divided in two lengthwise, boned and hung singly on the rack. The fish heads were strung on lines and dried for sale. Liver was steamed to produce oil, and roe was salted and smoked.

An alternative way of conserving the fish was to clean, split them in two and lay them on the rocks to dry in the sun. These clip fish were then exported to southern Europe to make "Bacalao de Nourvega". Tåvær was one of the clip-fish rocks. In spring, salted fish were soaked and washed in the sea before being salted again and laid in round mounds on the rocks. After three days, they were re-stacked, after which they were ready to be laid out on the rocks to dry. The weather conditions were vital for the quality of the end product of this elaborate, time-consuming process. Dried clip fish were shipped from the Vega Archipelago to Kristiansund from the beginning of the 1800s until 1940.

Nowadays, dried fish and clip fish are only produced for private consumption. Commercial fishermen now land their catches from regular fishing grounds right out at sea and among the islands for filleting and icing at the local processing plant on Vega.

The boat

The first people to settle along the coast and on the islands came by boat more than 10,000 years ago. The boat remained the most important means of transport along the coast of Norway until the second half of the 20th century.

The boats we know most about are those that have been in use from the end of the 19th century up to the present day. Before it became popular to have an engine in the boat, just before and after the First World War, the open Nordland boat with oars and a square sail was the main type of boat throughout northern Norway.

There are many sizes and versions of the Nordland boat, each adapted to different purposes:

- Tororing (from about 15 foot upwards, one pair of oars); the smallest Nordland boat.
- Faring (about 17 foot, two or three pairs of oars); the commonest boat for use near home.
- *Treroring* (three pairs of oars); used by individual households for transporting people and cargo, and for local fishing.
- *Halvfemterømming* (27 foot, four or five pairs of oars); for transporting people and cargo, and for fishing.
- *Åttring* (28 30 foot, four or five pairs of oars); the most commonly used boat for line fishing
- *Fembøring* (up to 45 foot, five pairs of oars); for fishing in winter with nets, cargo transport and to live in; this was the largest Nordland boat.

With a fresh breeze, the Nordland boats, designed on the pattern of Viking ships, could sail really fast. With the most favourable winds, they could outrun the coastal express steamers.

The boats were built at the heads of some fjords in the Salten, Rana and Bindalen districts, and this boat-building tradition, based on a thousand years of experience, has been maintained right up to our time. In the Viking Period, the largest ships were built in Hålogaland (northern Norway) and the biggest of the fleets of conscripted warships, with their 30 pairs of oars and an estimated length of some 42 metres, came from here.

The boats were beached in a cleared landing place on the shore where there was a boathouse in which they stood when not in use. The landing place and boathouse were an essential feature of any household. Farming, fishing and travelling by sea were inseparable parts of everyday life in Hålogaland, where Vega is situated.

Fishing took place from square-rigged, open boats right up to 1900. 'Toromsfæring' and 'treroring' (two and three pairs of oars) were mainly used for fishing near home. The 'halvfemterømming' was used for fishing in winter near Skjærvær and Bremstein, and also on the offshore banks in spring. 'Åttring' and 'fembøring' were used for the same fishing and also to fish cod in Lofoten and Finnmark.

Each boat required a considerable crew and many people were involved in the fisheries around the mid-1800s. This changed radically when engines were introduced from 1910. The new boats needed fewer crew members and much of the worst toil was gone. People began to use 20-30 foot motorboats ('sjark') for fishing both at home and in Lofoten.

The original 'sjark' was a roughly 20 foot Nordland-type boat fitted with an engine. By degrees, the hull design changed somewhat, but the Nordland boat remained the fundamental concept for the shape of fishing boats in northern Norway until plastics and steel took over as building materials during the second half of the 20th century (*Annex 2, no. 28*). Nowadays, the old Nordland boats are looked upon as veteran vessels and are put to leisure use. New Nordland boats are still being built on the old patterns.

Fishing grounds and navigation

In the past, no lighthouses or light beacons marked the way. In the dark and in poor visibility, the fishermen therefore learned to sail by the distinctive sounds made by the sea. The sound told them where the skerries and reefs lay, thus enabling them to know just where they were in the dark. The pot fisherman knew the bottom so well, he could tell where he was in dense fog. There are also special landmarks ('mé') that have been recognised as long as people have lived on the islands; for instance, Haufatet on the Vega mountains and Sula on Søla). A 'mé' is used to locate a specific fishing spot using the point of intersection between two lines of sight. The names of the 'mé' describe the topography, the height and the depth ('høl' - a deep spot under water), shape ('reip' - rope-shaped), the kind of fish, and the tackle to be used ('sula' - a reel for a fishing line), and a few bear the name of a woman. The knowledge about these landmarks was passed down from father to son, and was written down in special 'skall' books in the 1800s and well into the 1900s. Owing to the navigational aids on modern boats, much of the knowledge about these landmarks is being forgotten.

Livestock husbandry and farming

Remains have been found which show that livestock were kept on some habitation sites on the Helgeland coast dating from as early as 4000–5000 BP. Livestock were kept in all the island settlements in Vega until these were depopulated during the second half of the 20th century. Nowadays, some islands are grazed by breeds of sheep capable of staying outdoors all winter (outwintered sheep) (*Annex 2, nos. 12, 55*). Corn is known to have been cultivated on Vega 2000 years ago.

The most important domestic animals down the ages have been sheep and cattle. Others were pigs, goats, hens, dogs, cats and probably horses. On Søla, goats which had escaped formed a wild stock that survived for a couple of hundred years until around 1970.

On the islands, people made hay for the livestock and grew potatoes and other vegetables for their own consumption. Many islands were used for grazing in summer, cows on the most productive islands where fresh water was openly available (*Annex 2, no. 13*), sheep on less productive islands, often lacking fresh water. All islands with grass and herbs were scythed once each summer. The hay fields near the barn were fenced in and manured. The plots used for potatoes and other vegetables, and also small barley fields, were generally close to the dwellings, or in places on the islands where the soil was specially deep.

Seaweed cutting goes back a long way. Seaweed was used to improve the soil, as fodder and to make eider nests. On low, treeless, barren islands, the islanders spread seaweed on the land to deepen the soil and get better crops. Every single stem of grass was cut, and heather, seaweed and fish entrails were essential as supplementary fodder.

The varied land use on the islands has created a distinctive cultural landscape where different kinds of cultivated land have developed bearing unique compositions of plant species that still exist.

3c. Form and date of most recent records of property

Maps

In general, the quality and availability of maps is good. The most relevant maps include:

Land-use Maps Scale 1:5000. Contour interval 1 m. Show paths, tracks, roads, etc., place names, contours, types of land, ancient monuments and property boundaries.

Main Series of Topographical Maps Scale 1:50 000. Contour interval 20 m. Sheets 1726 I-IV. Field checked in 1984. Norwegian Mapping Authority. (*Annex 5*).

Main Chart Series Scale 1:50 000. Nos. 54, 55 and 56. ED 50. Published 1911, 1898 and 1905. Norwegian Mapping Authority, Hydrographic Section.

Coastal Chart Series Scale 1:350 000. No. 310. Leka – Sklinna/Vestfjorden. ED 50. Published 1919, 1960 edition. Norwegian Mapping Authority, Hydrographic Section.

Bedrock Geology Scale 1:150 000. Geological Survey of Norway. 2002. (Annex 1, Map B).

Quaternary Geology Scale 1:150 000. Geological Survey of Norway. 2002. (Annex 1, Map C).

Inhabitants and commercial life

Considerable statistical information exists, including:

Statistics Norway (Statistisk Sentralbyrå) releases more than 800 statistics a year (<u>www.ssb.no/english</u>). As one of very few statistic agencies in the world, Statistics Norway also performs extensive research and analysis.

National Population Register A continually updated register recording births, deaths and where every single individual is domiciled.

Real Properties, Addresses and Buildings Called **GAB** in Norwegian, this is a national register and an information system containing data on real property, owners, addresses and buildings throughout the country. It covers every property in Norway, complete with its owners and their official, allocated addresses, as well as all buildings larger than 15 m², with varying degrees of detailed information. It is updated daily, these routines being authorised in Norwegian legislation. Vega Borough Council has access to the register.

Agricultural Register is a register of all agricultural properties, operative units in agriculture, owners and users throughout the country. Contains information on the classes of agricultural land, productive woodland and the total area of farmland in active use in Vega.

Catch reports (2002) provides a survey of fish catches. The figures derive from the Directorate of Fisheries, the Norwegian Raw Fish Sales Organisation and local fish buyers.

Aquaculture production (2002) is a survey from the Directorate of Fisheries of aquaculture plants in Vega.

Cultural history

Our knowledge of visible cultural history remains is considerable and the information is found in several registers.

SEFRAK – register of buildings covers buildings and remains of buildings from before 1900. Approximately 495,000 in the country as a whole. Vega has 711 objects registered in SEFRAK, 199 of these being ruins or remains. The original data are stored at the Nordland County Council offices. The digital version is included in the GAB register (see above).

SEFRAK – register of other heritage objects and environments covers other kinds of post-Reformation (post-1537) heritage objects. The records are incomplete. Approximately 20,000 are registered in the country as a whole, 21 in Vega. The original data are stored at the Nordland County Council offices. They will be transferred to the Monument and Site Register (the Cultural Monuments' Data Base).

Register of Protected Buildings covers all protected buildings (except Sami ones) and all objects and sites covered by an Individual Protection Order. Approximately 4000 objects in the country as a whole. Vega has two sites containing a total of 32 objects. (www.mistin.dep.no/fredninger/fredn_sok.asp)

Monument and Site Register covers all automatically protected (pre-1537) archaeological and historical monuments and sites (not buildings). Vega has 238 localities containing automatically protected monuments and sites of this kind registered in the data base. The data base contains descriptive data, not co-ordinates. The Monument and Site Register will be replaced by the Cultural Monuments' Data Base in 2003, which will also contain co-ordinates. Access to the Monument and Site Register requires a password. However, the data are also available on an open web site: www.arkeoland.uib.no

Topographical Archive at the Museum of Archaeology and Natural History contains information on archaeological and historical monuments and sites in the Vega Archipelago that are not precisely placed on maps. Held at the Museum of Archaeology and Natural History, Norwegian University of Science and Technology, Trondheim.

Biological diversity

Extensive background material exists for terrestrial biology, information having been gathered since the 1960s.

As a follow-up of the Convention on Biological Diversity, Norway is undertaking a municipal programme during 1999–2003 which includes the recording of important habitats, the ranges of important species and the precise haunts of Red Listed species. The local authorities prepare thematic maps and combined maps which classify the values in the areas shown. The records are fed into the national nature data base (**naturbasen**) which, in turn, is linked to the land-use information system, **Arealis**, in each county administration.

Vega Borough Council completed its effort in the field during the summer of 2002 and all the data will be available in the appropriate data bases within a year or two.

Nature data base

This data base contains information derived from the mapping of biological diversity, as well as data on nature conservation areas, open-air recreation areas and cultural landscapes.

It enables statistics and maps to be produced for use in planning, environmental impact assessments, management, monitoring, etc. Various key figures can be derived from it. The data base covers the whole country and is updated quarterly. Vega Borough Council and the Office of the County Governor of Nordland can access it.

Arealis

This is a national project aimed at making land-use, resource and planning information more readily available to local authorities and county administrations. The principal objective is to gather information from specialist bodies and process it in a manner suitable for planners. Specifications have been drawn up for important geographical data sets in many fields, including archaeological and historical monuments and sites, biological diversity, water supply, agriculture, land-use plans and population figures. As of September 2002, the following data sets are available for Nordland:

Marine oil pollution service	Stand-by	Acute oil pollution, Stand-by, Marine environmental resources, Social security	FMVA	1:50.000
Protected buildings	Cultural monuments	Buildings, Protected, Cultural monument	RA	1:20 000
Other SEFRAK buildings	Cultural monuments	Buildings, Cultural monument, SEFRAK	RA	1:20 000
Provisionally protected	Cultural monuments	Protected, Cultural environment, Cultural monument, Protected area	RA	1:20 000
Port district	Coast/fishing	Port district	National Coastal Administration	1:50 000
Valuable cultural landscape	Landscape	Biological diversity, Agriculture, Cultural landscape Cultural monument, Landscape, Worthy of protection	FMVA	1:50 000
Non-disturbed nature	Landscape	Non-disturbed nature, INON, Nature management, Undisturbed, Roads	FMVA	1:50 000 1:250 000

RA - Directorate for Cultural Heritage

FMVA - Division for Environmental Conservation at the County Governor's Office

Marine environment

General speaking, considerably less is known about the marine environment than the terrestrial environment. The exceptions concern the pelagic systems which form the basis for important fisheries, the mapping of seaweed resources (in 1950) and studies of the kelp forest problem from 1980 onwards.

In connection with on-going work on a national conservation plan for marine areas, some supportive data have been compiled that concern the Vega Archipelago. A transect from Vistenfjord right across the strandflat here is one of the potential marine conservation areas being considered in connection with the plan. Particularly relevant sources are listed in Chap. 7c.

Vegetation

Botanical investigations have mainly been carried out from 1980 to the present day. The most important ones are listed in Chap. 7c.

Since 1998, a research project entitled "Utmarksbeite på Helgelandskysten" (Outfield grazing on the Helgeland coast) has been investigating the extent of overgrowing on more than 100 islands.

The Norwegian Institute for Soil and Forest Mapping is planning extensive vegetation mapping in Vega in summer 2003.

Fauna

Systematic recording of fauna has been taking place since the 1960s, particularly as regards bird life. In the 1970s and 1980s, several systematic investigations were undertaken in connection with the preparation of conservation plans. Records drawn up by a local ornit-hologist (Johan Antonsen) make up a 40-year series. Occurrences of seals, otters and elk, among others, have also been recorded in recent decades. The most important faunal investigations are listed in Chap. 7c.

Legal provisions

The Lovdata Foundation has web pages on the Internet (<u>www.lovdata.no</u>) listing all the Acts and national and local Regulations that relate to the property.

Photographic documentation

The Directorate for Nature Management has 1000 colour slides taken in July, August, October and November 2002.

The Directorate for Cultural Heritage has an archive of photographs.

Some photographic documentation of buildings in the property was made during the SEFRAK investigation (held at the Nordland County Council offices).

Wilse Collection from 1905-13 (held at the Norwegian Folk Museum).

Geological information

The bedrock and Quaternary geology of the area are well documented. References to the most important publications are in Chap. 7c.

3d. Present state of conservation

Cultural landscape

In recent years, focus has been directed on values attached to the cultural landscape in the Vega Archipelago, especially relating to problems associated with formerly cultivated areas becoming overgrown. Among the significant projects that may be mentioned are:

"National registration of valuable cultural landscapes" took place in 1994 to select the cultural landscape areas in Norway that were most worthy of protection. *Lånan*, a group of islands in the property, was one of the 104 areas chosen.

"**Outfield grazing on the Helgeland coast**" is a research project that began in 1998 to study the extent of overgrowing on more than 100 islands.

Upkeep and maintenance plan for cultivated land in the Vega Archipelago (draft 2002) is a continuation of the above-mentioned research project and aims to reduce the further loss of formerly cultivated land with substantial biological value. The work is being carried out by staff of the Norwegian Institute for Crop Research at its local office in Tjøtta, in co-operation with Vega Borough Council and the County Governor's Office in Nordland. The measures proposed will be processed and implemented during 2003.

Coastal culture and cultural environment

The cultural heritage conservation authorities in Norway are now placing great emphasis on individual cultural monuments and sites being part of a meaningful context and that this context must be preserved for posterity.

"Protection of cultural monuments and sites along the coast" is a project whose goal has been to help to protect a representative selection of coastal environments. It is also focusing on restoring objects and perhaps making them suitable for a new form of use. The protection and restoration of *Skjærvær* in the Vega Archipelago is an important result of this work. The **Lighthouse Preservation Plan** (1997) has resulted in the protection of 83 lighthouses along the Norwegian coast. *Bremstein Lighthouse* in the Vega Archipelago is one of those afforded national priority.

Automatically protected archaeological and historical monuments and sites

Ever since the first Cultural Heritage Act in 1905, all pre-Reformation (pre-1537) archaeological and historical monuments and sites have been automatically protected. Vega has 238 known localities of this kind recorded in the Monument and Site Register and by an (R) symbol on land-use maps (scale 1:5000). Known archaeological and historical monuments and sites are, in general, at risk of being damaged or destroyed, and the estimated annual loss in the country as a whole is 1 %. The proportion in Vega is not known.

Vega Project was an archaeological research project that took place in 1984–88 and resulted in many significant discoveries. It revealed the great research potential of the Vega Archipelago. The results have been summarised on a map, which also shows the areas in Vega that have the greatest potential for new discoveries.

The Cultural Heritage Year of 1997

In Norway, 1997 was set aside as Cultural Heritage Year. In this context, many local authorities selected a municipal cultural heritage site, an important symbol for cultural monuments within the borough. In Vega, $R\phi r\phi yg arden$ (a farm and former trading centre in the buffer zone) was chosen.

Ship finds

The Norwegian Cultural Heritage Act states that a boat or related object that is older than 100 years is State property and must not be moved or damaged. Marine archaeological investigations and registrations of Norwegian coastal waters are inadequate. Nevertheless, pilot studies have shown that the foul waters within the property, combined with fishery-based settlements, good natural harbours and emergency harbours, offer a great potential for finding marine archaeological objects and wrecks from a long period of time.

Fredrikstad Declaration and a Local Agenda 21

In November 1998, Vega Borough Council adopted the Fredrikstad Declaration regarding the effort of the local community to further sustainable social development. This has been elaborated on and made more specific in the "*Handlingsprogram for bærekraftig utvikling i Vega*" (*Action programme for sustainable development in Vega*) adopted on 5th October 2000. This programme states that the following visions will form the basis of future municipal planning:

"The physical evidence left by prehistoric people in Vega must be a living and visible part of the everyday life, self-expression and self-understanding of the inhabitants."

"Biological diversity in Vega must be secured for coming generations. Create an understanding of the importance of safeguarding the biological diversity. Secure and preserve the animal and plant life that occurs naturally in Vega through sustainable land-use management and resource utilisation."

The land-use part of the Municipal Master Plan

The Municipal Master Plan (approved in 2001) is undergoing revision. New plans will replace both this and the present Coastal Zone Plan (a sub-plan for the islands and areas of sea). The values that form the basis of the World Heritage Nomination and their management will form the premises when the new land-use plan for the land and sea area in the Vega Archipelago is drawn up. The work starts on 1st January 2003.

The current Coastal Zone Plan (from 1997-2000) states the following regarding the cultural landscape:

"The local authority will take care of and develop the positive values in the cultural landscape in all its planning and activities, and improve the elements in the cultural landscape that do not fit into the total impression given."

In the current Municipal Master Plan for Vega, the nominated property is set aside as agricultural areas, nature areas and areas for open-air recreation with the following provisions: "Area where building is forbidden. Permission may be given to erect individual buildings that are directly associated with agriculture and existing business or industry that is attached to one location."

Egg and down sites

Fifteen egg and down sites were legally preserved long ago (*see the table in section 3b*). The right to collect eggs and down at these sites has been upheld under the terms of the Wildlife Act of 29th May 1981. The basis for practising this traditional livelihood in the Vega Archipelago is thus ensured.

"Landowners or users of land may collect eggs from eider nests in formerly legally preserved egg and down sites up to and including 1st June. Down from eiders may be removed throughout the summer after hatching has occurred."

Nature conservation

The cultural landscape in the Vega Archipelago contains areas with natural merits of international, national or regional value. On the basis of reports dealing with national and regional qualities, the Government has consequently protected substantial areas under the terms of the Nature Conservation Act. Special regulations prevent forms of land use and disturbance that are detrimental to natural values within the nature conservation areas in the Vega Archipelago.

Thematic conservation plans for wetlands, rich deciduous woodlands and coastal areas have resulted in the setting aside of four nature reserves, four bird sanctuaries and one area of protected landscape. All told, these cover 22,380 ha of land and sea within the property.

3e. Policies and programmes related to the presentation and promotion of the property

Eider House (É-huset)

In Helgeland, there is an unbroken tradition of keeping eiders as 'domestic birds'. The history of this tradition and of its commercial aspects is presented at the Eider House, a documentation centre for the egg and down business. The Eider House is in process of being established in a former warehouse on a quay on Vega. The exterior restoration of the building is complete, a concept for an exhibition has been prepared and efforts are being made to obtain money to fully finance the project and cover the running costs. The work accomplished so far has been covered by grants from, among others, the Norwegian Council for Cultural Affairs, Nordland County Council, the County Governor of Nordland and Vega Borough Council, in addition to a substantial input of voluntary labour.

Web portal

Informing the wider public of the universal values of the area for research, education and general enjoyment is a major challenge that needs to be met. Since the nesting season of the birds is one factor that will need to have a strong bearing on when parts of the area may be visited, it will be specially important to spread good information via the Internet.

A web portal will be able to inform the public at large about the World Heritage Area. In the case of the Vega Archipelago, it will be their natural history, cultural landscape and historical merits that will be most important. The web pages should also present research carried out in the area and have a data base enabling people to seek information about the flora and fauna.

Possible future co-operation with the High Coast World Heritage Area in Sweden to evolve a special Internet site on World Heritage aspects for children and young people is being discussed, as, too, is the feasibility of arranging the exchange of school pupils.

A web page has been set up in connection with the nomination work, to inform people about the area and the progress of the nomination process. <u>www.verdensarvvega.no/english.htm</u>

Ecotourism

Ecotourism is a key concept for paving the way for visitors to the entire Vega archipelago. The increasing influx of visitors means that Vega Borough Council must stay one step ahead and steer the visitors to prevent damage to the extremely vulnerable natural and historical assets.

Vega Borough Council wishes to focus particularly on:

- Paving the way for visitors and providing information in parts of the protected areas. This is taking place through the Coastal Trail and World Heritage Trail. The Coastal Trail has been organised as a thematic trip focusing on the Stone Age (Vega), botany (Skogsholmen), egg and down collecting (the Eider House and Hysvær) and preserved buildings (Skjærvær). It will also be able to be extended to include small package trips to the proposed World Heritage Area of the Vega Archipelago.
- Organising facilities for tourists at the protected fishing village of Skjærvær by providing public services, information and overnight accommodation.

Preservation of buildings

The Directorate for Cultural Heritage, in co-operation with Vega Borough Council, Nordland County Council and the region as a whole, has invested a huge effort over several years in restoring and refurbishing some 20 buildings in the abandoned fishing village of Skjærvær. Skjærvær is protected under the terms of the Cultural Heritage Act and the Directorate for Cultural Heritage has singled it out as a specially valuable cultural heritage site on the coast.

Vega Borough Council is faced with a huge challenge with regard to continuing this work and finding new uses for the village. Skjærvær will be able to have an important function in providing knowledge of value for corresponding restoration work in this region.

World Heritage Trail

The concept of coastal trails is to provide a network of overnight accommodation facilities along the Norwegian coast for people travelling on foot, in motor boats or in yachts. The endeavour began as a joint effort between the Norwegian Mountain Tourist Association, the Coastal Association and the National Association of Open-air Recreation Councils, along with input from local people attempting to set up facilities.

Vega Borough Council, Vega Coastal Association and the local tourist industry are cooperating in Vega to evolve a World Heritage Trail that will give visitors an insight into the qualities that have led to the nomination of the Vega Archipelago as a World Heritage Area. The Trail is thematic and demonstrates Stone Age history, biological diversity, the egg and down business, the preservation of buildings and the history of coastal culture.

WISP

A number of water bird information centres are being established in northern Europe. The greylag goose is the species upon which several of these concentrate their attention. A future visitor centre for the Vega Archipelago will be able to be linked to the others through its location close to one of the breeding sites of this species.

Books and booklets

Wold, Helge A. (1985): *Utvær, bilder fra et norsk hverdagslandskap.* Ness, Inga E. 1998: *Med ea som husdyr. Egg- og dunvær i Vega*. Fotefar mot nord. Vega kommune.

Ness, Inga E. (ed.) 1999: Vega gjennom 10.000 år. Vega kommune.

Johansen, R. & Sørli, S. (ed.) 2001: I ærfuglens rike. Nordisk Kulturlandskapsforbund No. 15.

Brochures

Vegaøyene som verdensarv (4 pages). Norwegian and English versions (2001).

Products

Eider down quilts. A number of hand-sewn quilts are produced here each year using traditional methods.

4 Management

4a. Land ownership

The vast majority of land in the property is privately owned (ca. 90 - 95 %). The right of ownership of private land also embraces the adjoining area of sea down to a depth of 2 m. Vega Borough Council owns less than 10 % of the land, and only approximately 0.5 % is state owned.

Areas of sea beyond a depth of 2 m are state owned. The Norwegian State has the right of ownership to sub-sea natural deposits (cf. Act relating to Petroleum Activities) and the Government through the Directorate of Fisheries administers the Act relating to Sea-water Fisheries, etc., which regulates the utilisation of fish resources in the free water masses.

4b. Legal status (as of 1st January 2003)

The **Planning and Building Act** for the most part controls the management of land and landscape in Norway. The Act functions through a system of plans, the overriding instrument at the local level being the parts of the Municipal Master Plan referring to land use. The borough council adopts the master plan and evaluates it every 4 years. As regards the property, the current Municipal Master Plan includes two parts referring to land use, one for land areas (2001-2005) and another for coastal and marine areas (1997-2001). Provisions that refer to both maps and text lay down the premises for the preservation and development of the cultural landscape and its natural and cultural values.

The important special bills with national application, the **Nature Conservation Act** and the **Cultural Heritage Act**, are, moreover, of great importance for protecting and managing parts of the special cultural landscape of the Vega Archipelago. Under the provisions of these Acts, the Norwegian Government, through resolutions adopted by the King in Council or by the Directorate for Cultural Heritage, has protected areas with outstanding archaeological and historical monuments and sites, and/or natural assets. Within their boundaries, the Acts furnish the environmental conservation authorities with the right to control all acts of a physical nature that have a bearing on the protected assets. In addition to 238 localities known to have automatically protected archaeological and historical monuments and sites, 32 buildings and 22,380 ha of the property are protected under the terms of the special bills (*Annex 1, Map F*).

A number of other Acts have indirect and direct significance for the protection and management of values in the cultural landscape of the property in that they regulate the utilisation of individual natural resources, or facilitate control and supervision.

All told, the various parts of the national legislation offer an effective legal means for controlling development in every aspect of the use of land and resources in the property so that the values protected are preserved.

The various relevant Acts are described in more detail below.

Planning and Building Act of 14th June 1985

This Act applies to the entire Vega Archipelago, including rivers, streams and areas of sea.

Planning under the terms of the Act must pave the way for co-ordinating national, county council and local authority activities and provide a basis for decisions on the use and protection of resources, development and paying attention to aesthetic aspects.

Guidelines and legally binding plans for the Vega Archipelago		
Chap. IV § 17-2	<u>Planning at the national level</u> Ban on building, etc. inside a 100 metre belt from the sea	
Chap. V	County planning County Plan for Nordland County Council for 2000-2003 County sub-plan for the coastal zone in Nordland for 1997-	
Chap. VI	<u>Municipal planning</u> Municipal Master Plan for Vega (approved on 28th June 2001) Coastal Zone Plan for Vega (Municipal sub-plan approved in 1997)	
Chap. VII § 28-2	Local Development Plan Building Development Plan	

Chap. IV § 17-2 Ban on building and disposal of part of a property inside a 100 metre wide belt along the shoreline to the sea

The Act lays down a general ban on the erection of new buildings closer to the sea than 100 metres from the shoreline measured horizontally from the shoreline at normal high water. The provision does not apply to built-up areas nor to areas covered by a Local Development Plan. The ban means that many small islands and large stretches of the shore zone can remain undeveloped by buildings. This also has positive consequences for the cultural land-scape in the Vega Archipelago.

Chap. V County Planning

The County Plan for Nordland consists of objectives and long-term guidelines for development in the county and has direct influence on physical planning in the Borough of Vega. The plan contains regional policy guidelines for land-use policy in five areas:

- general guidelines for land-use planning
- land-use policy for the development of business and industry
- sustainable land-use in the coastal zone
- sustainable land-use in towns and built-up areas
- land-use policy for the management of open countryside and biological diversity.

A separate county sub-plan for the coastal zone in Nordland (1997-) gives more detailed guidelines for land-use planning in the coastal zone.

Chap. VI Municipal Planning

According to the Norwegian Planning and Building Act, Municipal Master Plans are intended to co-ordinate physical, economic, social, aesthetic and cultural development within the local authority concerned. They consist of a long-term component containing targets for development and guidelines for sector planning and a part referring to land use to enable the management of land and sea areas and other natural resources. The land-use part of the Municipal Master Plan for Vega consists of two co-ordinated planning documents, a sub-plan for land areas (2001-2005) and a sub-plan for coastal and sea areas (1997-2001). These land-use plans consist of maps on which the whole of Vega is divided into zones with associated planning provisions. The maps have legal effect for the land use.

Examples of current targets in the Municipal Master Plan for Vega for the protection of natural and cultural values:

- Traditions passed down over generations for harvesting natural resources, which reflect their sustainable utilisation, must be upheld
- Local architectural traditions and aesthetic qualities must be safeguarded when planning areas where building is to take place
- The use of productive land and grazing must be avoided when development is to take place, and areas that are important for biological diversity must be preserved.

Example of current strategies in the Municipal Master Plan for Vega for preserving natural and cultural values:

• A separate sub-plan within the Municipal Master Plan must be drawn up for cultural heritage preservation.

Examples of current planning provisions that are important for preserving natural and cultural values:

- In areas set aside for agriculture, nature conservation and open-air recreation, new building development must conform to the following guidelines:
 - buildings must be accommodated to the terrain and the surroundings
 - buildings must conform to the architectural style and traditions of the area
 - a Building Development Plan is required for developments consisting of groups of more than three buildings, or of leisure cabins.

Chap. VII Local Development Plans

In general terms, a Local Development Plan is a detailed plan with associated provisions which regulates the use and protection of land. It is drawn up whenever it is essential to ensure that general planning work is implemented in accordance with the law. No valid Local Development Plans exist for the property as of 1st January 2003.

Chap. VII § 28-2 Building Development Plan

In general, the drawing up of a Building Development Plan may be required to establish the design of buildings and associated outside areas within a specifically limited area. No valid Building Development Plans exist for the property as of 1st January 2003.

Chap. VIIa Environmental impact assessments

Any measure that may have significant impact on the environment, cultural heritage objects and sites, natural resources or the community generally generates an obligation for an environmental impact assessment to clarify its effects.

Chap. III Consultation, publication and information

National, county council and local authority planning bodies are generally speaking obliged to keep the general public informed of planning matters. Individual persons and groups affected by plans must be given an opportunity to participate actively in the planning process.

Cultural Heritage Act of 9th June 1978

The purpose of the Act is to protect archaeological monuments and sites and cultural environments, which are part of our cultural heritage and identity, as part of the overall environmental and resource management.

All archaeological and historical monuments and sites from before 1537 and Sami monuments and sites that are more than 100 years old are automatically protected under the terms of the Act. In addition, standing structures dateable to the period 1537-1650 are normally also automatically protected. An automatically protected monument or site always has a 5-m broad protected security zone extending from its perimeter. The automatic protection also concerns monuments and sites under water. The Act also protects all ship finds older than 100 years.

Under the terms of the Act, the Ministry of the Environment may issue an individual Protection Order to protect structures or sites that date from 1537 or later. The County Council administration is authorised by the Act to issue temporary Protection Orders.

An area surrounding all types of protected monuments and sites may be protected to secure their effect and significance within the landscape or to protect scientific interests associated with them. A Royal Decree may, moreover, protect cultural environments as an entity.

The Act thus protects archaeological and historical monuments and sites from adverse disturbances, prescribes penalty scales that may be meted out to those who damage a protected monument or site, and describes the rights and obligations of the owners. The Act protects archaeological and historical monuments and sites on land as well as under water. The Directorate for Cultural Heritage is responsible for ensuring that the Act is complied with.

The Act stipulates prior notification to the proper authorities from anyone who intends to initiate projects which may lead to the disturbance of an automatically protected archaeological or historical monument or site, or a ship find. The person responsible for initiating the project must ensure that the obligation regarding prior notification is fulfilled. The project must be reported to the Division for Cultural Heritage Affairs in the appropriate County Council. The initiator of the project must bear all the costs of any mapping, excavations or protective measures arising out of such notification.

Protected obje	Protected objects and areas in the Vega Archipelago		
Chap. II, § 3	Automatically protected archaeological and historical monuments and sites All cultural heritage objects in the <i>Vega Archipelago</i> that date from before 1537 are automatically protected. This concerns all archaeological monuments and sites (for instance, Stone Age localities and Medieval cultural layers), ruins and buildings. A total of 238 localities containing one or more automatically protected archaeological monuments or sites have so far been recorded in the archipelago, mostly in the buffer zone.		
Chap. II, § 6	Security zone around automatically protected cultural heritage objects The area around an automatically protected archaeological monument or site is protected against any and all measures or disturbance (for a minimum of 5 m from the periphery). This applies to all the 238 localities mentioned above.		
Chap. IV, § 14	<u>Ship finds</u> Ship finds older than 100 years are the property of the State and must not be moved or damaged without the permission of the Cultural Heritage Authority.		
Chap. V §§ 15 and 19	 Individual Protection Order The Ministry may protect structures or sites which have special value architecturally or from the point of view of cultural history. As a step in the protection process, an extensive round of consultations is undertaken during which relevant private and public parties may make their opinions known. The Directorate for Cultural Heritage takes the final decision. This means that all measures beyond ordinary upkeep require special permission from the cultural heritage authority. This also applies to fixed inventory. Within the property, the following objects and their immediate surroundings are protected: Skjærvær, Protection Order dated 1994 referring to 29 individual protected objects (buildings). Bremstein Lighthouse, Protection Order dated 1999 referring to 3 protected buildings. 		

Chap. IV Ship finds

The State has the right of ownership of boats more than 100 years old, ship's hulls, gear, cargo and anything else that has been on board, or parts of such objects, when it seems clear under the circumstances that there is no longer any reasonable possibility for finding out whether there is an owner or who the owner is. Finds of such objects must be reported to the local police authority or to the authority appointed under the Act.

Within the Vega Archipelago are two marine archaeological PRIMAT areas (prioritised marine archaeological territories) where an evaluation has been made of the likelihood that valuable finds will be revealed in the event of detailed investigations.

Nature Conservation Act of 19th June 1970

The Nature Conservation Act states that nature is a national asset which must be protected. The Act also emphasises the close interrelationship between man and nature, and that the quality of nature must be preserved for the future.

The Act authorises the preservation and protection of rare and endangered species of animals and plants and natural areas containing regional, national and international values in connection with animal and plant life, geological features and landscapes. The protection takes place by Royal Decree, which means that the Government adopts a resolution through the King in Council.

As a step in the democratic process associated with the setting aside of protected areas, a round of consultations is undertaken where relevant parties are given an opportunity to comment on the plans.

Protected areas within the property		
Chap. II, § 5 Protected landscape area		
	Hysvær/Søla Protected Landscape Area (2002)	9317 ha
Chap. II, § 8	Nature reserves	
	Eidemsliene Nature Reserve (2000)	292 ha
	Kjellerhaugvatnet Nature Reserve (1997)	199 ha
	Holandsosen Nature Reserve (2000)	250 ha
	Lånan/Skjærvær Nature Reserve (2002)	11 292 ha
Chap. II, § 9	Bird Sanctuaries (biotope protection)	
	Mudvær Bird Sanctuary (2002)	959 ha
	Skjærvær Bird Sanctuary (2002)	33 ha
	Lånan Bird Sanctuary (2002)	33 ha
	Flovær Bird Sanctuary (2002)	5 ha
		Total: 22 380 ha

Chap. II § 5 Protected Landscape Areas

A protected landscape area is set aside to preserve distinctive or beautiful natural or cultural landscapes. No activities may be undertaken there which can substantially alter the nature or character of the landscape.

The purpose of setting aside the Hysvær/Søla Protected Landscape Area is:

- to preserve a distinctive natural and cultural landscape area, and to secure the zoological, botanical and cultural historical elements that contribute to the special character of the area.

Chap. II § 8 Nature Reserves

Nature reserves are set aside where strict protection is essential. They contain habitats, biota or biotopes that are of special scientific or pedagogical significance. The purpose of setting aside the nature reserves in the Vega Archipelago is to protect such elements as:

- valuable areas of wetland and mire, valuable areas for migrating and breeding wetland birds, rich deciduous woodland containing thermophilous and rare species of plants, localities where barnacle geese rest, and breeding, moulting and wintering areas for sea birds.

Chap. II § 9 Protected Biotope Areas

Protected biotope areas are set aside to protect the habitats of specific species of animals and plants. The purpose of setting aside the bird sanctuaries in the Vega Archipelago is: *- to preserve a good and undisturbed breeding and growing up area for sea birds.*

Other legislation that is important for land use and management

Open-air Recreation Act (1957)

The purpose of this Act is to protect the natural basis for outdoor recreation and to secure the public right of access to and passage through the countryside and the right to spend time there, etc., so that opportunities for outdoor recreation as a leisure activity that is healthy, environmentally sound and gives a sense of well being are maintained and promoted.

Act relating to Motor Traffic on Uncultivated Land and in Watercourses (1977)

The purpose of this Act is to regulate motor traffic on uncultivated land and in watercourses on the basis of overall considerations of the public interest, with a view to protecting the natural environment and promoting public well-being.

Wildlife Act (1981)

All wild-living land mammals, birds, amphibians and reptiles within the property are protected under the terms of this Act unless a Regulation provides specific exemption. The purpose of the Act is to manage the wildlife and its habitats in such a way that the productivity and species diversity found in nature are preserved. A special Regulation under the terms of the Act has been adopted regarding *open seasons for the collecting of egg and down applicable to the seasons from 1st April 2002 up to and including 31st March 2007.* It states the species, time periods and permissible equipment for hunting, egg and down collecting in the Vega Archipelago.

Pollution Act (1981)

The purpose of this Act is to protect the external environment from pollution, reduce existing pollution, reduce the quantity of refuse and encourage better treatment of refuse. The Act is intended to ensure that the quality of the environment is acceptable so that pollution, contamination and refuse do not become detrimental to health, well-being or the ability of nature to produce and regenerate itself.

Act relating to Sea-water Fisheries, etc. (1983)

The purpose of this Act is to regulate all fishing in the sea in keeping with the principle of maintaining justifiable and sustainable management of the resources in the sea. The Act and its associated Regulations regulate all fishing (quotas and methods) within the Vega Archipelago and neighbouring offshore waters.

Act concerning the Cultivation of Fish, Shellfish, etc. (1985)

The cultivation of fish and shellfish requires a licence. The Directorate of Fisheries issues licences for the cultivation of salmon and trout for human consumption. Licences to produce fry and fish for stocking purposes and to cultivate sea char, marine fish and shellfish for human consumption are issued by the regional director for fisheries and aquaculture in the county in which the plant is to be located.

Act relating to Land (1995)

The purpose of the Land Act is to ensure that land resources are employed in a way that is best for society and for those employed in agriculture.

Provisions in the Land Act stating that cultivated land must not be used for purposes that are not directed at agricultural production, and that cultivable land must not be used in such a way that it becomes unsuitable for agricultural production in the future, are of particular importance for the management of the landscape in the Vega Archipelago. Exemption from these provisions may be granted in special cases following an application which must be submitted to the local authority concerned.

Nature Inspectorate Act (1996)

The King can set up a Nature Inspectorate to safeguard national environmental merits and prevent environmental crime. This inspectorate is intended to ensure that provisions laid down in a number of Acts are complied with, the Acts concerned being the *Open-air Recreation Act, Nature Conservation Act, Act relating to Motor Traffic on Uncultivated Land and in Watercourses, Cultural Heritage Act, Wildlife Act and the Act relating to Salmonids and Fresh-water Fish.* The inspectorate has the task of providing guidance and information, upkeep and maintenance, registration and documentation. A proposal has been put forward to open a regional office in Vega, or elsewhere in Helgeland.

Act concerning Sea Ranching (2000)

The purpose of this Act is to help sea ranching to have a balanced and sustainable development and become a profitable coastal industry. The Act applies to the release and recapture of crustaceans, molluscs and sea urchins for commercial purposes (sea ranching).

Act relating to Watercourses and Groundwater (2000)

The purpose of this Act is to ensure that watercourses and groundwater are used and managed in a manner that is in the best interests of society.

The drainage basin for drinking water in Vega is situated within the area proposed for nomination to the World Heritage List.

4c. Protective measures and means of implementing them

Objectives and appropriate measures

The Norwegian Government, national and regional authorities, Vega Borough Council and the landowners have the common objective of helping to ensure that the values which underlie the nomination are preserved for posterity. A number of documents confirm this objective, contribute towards giving the parties a sense of responsibility and list the prioritised practical measures that will help ensure successful implementation.

Declaration of Intent (2002)

A Declaration of Intent between the landowners, the authorised users, Vega Borough Council, the County Council and Government authorities regarding co-operation and joint responsibility for preserving the values in the landscape (*Annex 3*).

One objective

• "the landscape in the Vega Archipelago, with its cultural and biological values, shall be preserved"

One measure

• set up a consultative group for the World Heritage Area

Fredrikstad Declaration (adopted by Vega Borough Council in 1998)

Many Norwegian borough councils, local communities and organisations chose to sign this Declaration to demonstrate their desire for sustainable development, a Local Agenda 21. (A Local Agenda 21 is a follow-up performed by local authorities in response to encouragement stated in Agenda 21, adopted at the Conference on Environment and Development in Rio de Janeiro in 1992.)

Two objectives

- ".... sustainable development that ensures a quality of life and a foundation for life today and for coming generations."
- "The activities in our local community must take place within the limits of what nature can tolerate both locally and globally, and we therefore wish to reduce our consumption of resources and the load we place on the environment."

One measure

• an action plan for sustainable development in Vega (see below).

Action plan for sustainable development in Vega (adopted by Vega Borough Council on 5th October 2000)

The plan will be used as a template for all the municipal planning. <u>Two objectives</u>

- "The physical evidence left by prehistoric people in Vega must be a living and visible part of the everyday life, self-expression and self-understanding of the inhabitants."
- "Biological diversity in Vega must be secured for coming generations. Create an understanding of the importance of safeguarding biological diversity. Secure and preserve the animal and plant life that occurs naturally in Vega through sustainable land-use management and resource utilisation."

The measures include:

- continue the Skjærvær and Bremstein projects
- endeavour to establish the Eider Museum and Documentation Centre
- draw up a strategy for getting young people to return to Vega after completing their education
- *duplicate maps and registers of archaeological and historical monuments and sites for use in schools, etc.*
- set up apprenticeships in the fishing industry
- retain people who have expertise in the fishing industry
- strictly enforce the obligation to live on and run farms
- map the location and extent of specially important types of habitat that are rare or endangered
- be restrictive in respect of encroachments and new forms of land use in important localities for plants and animals
- use the land-use section of the Municipal Master Plan to hinder important areas from being developed
- safeguard the cultural landscape on the islands through a care and maintenance plan and measures (see the next item)

Municipal Master Plan for Vega (2001-2005)

One objective

• "The basis for the development of the community by the inhabitants must be use and reuse. The traditions passed down over generations for harvesting the natural resources, which reflect their sustainable utilisation, must continue."

Two measures

- introduction of a general ban on building within the proposed World Heritage Area
- separate, general guidelines regarding localisation, extent and design of new building development within the proposed buffer zone

Upkeep plan for the Vega Archipelago (nearing completion by Vega Borough Council) Objectives

- register botanical qualities on selected islands in the archipelago
- raw up recommendations for how the islands should be taken care of

The following are among the measures proposed:

- sheep grazing should be intensified on a broader selection of islands
- cattle and/or sheep grazing on selected islands
- controlled sheep grazing on specially selected islands that are vulnerable
- set up a monitoring project.

Management plan for eiders (nearing completion by Vega Borough Council) One objective

• "Secure the duck population to enable the retention of a vital and unique aspect of the coastal culture of northern Norway."

The measures should include:

- the founding of the Vega Down Association (an organisation of people with a common interest for running the egg and down business)
- financial aid for people tending eiders
- *further development of an Eider Centre (a centre for documentation and providing know-how)*

Archaeological and historical monuments and sites and cultural environments (protected under the terms of the Cultural Heritage Act)

Objective

• "Archaeological and historical monuments and sites and cultural environments are irreplaceable sources of knowledge about the life and activities of people and their artistic and technological skills down the ages. As non-renewable resources they have to be managed with a long-term perspective."

Measures should include:

- Protection Orders for 32 buildings and their immediate surroundings in the Vega Archipelago
- endeavour to set up a "building preservation centre" on Skjærvær (Vega Borough Council, Nordland County Council and the Directorate for Cultural Heritage)
- secure and continually maintain Bremstein and Skjærvær (by the Norwegian National Coastal Administration and Vega Borough Council)

<u>Nature conservation</u> (nature protection resolutions under the terms of the Nature Conservation Act)

Objective

• "Nature conservation implies utilising the natural resources from the viewpoint of the close interrelationship between man and nature, and bearing in mind that the quality of nature must be preserved for the future. Encroachments should only be undertaken on the basis of a long-term and broad-based allocation of resources that takes into account that nature is preserved for the future as a basis for the employment, health and well-being of the people."

Measures should include:

- The completion of a comprehensive management plan for areas in the Vega Archipelago where nature is protected (this is being prepared by staff in the office of the County Governor of Nordland and will be completed by 1st January 2004)
 - The document will include the following:
 - plan for monitoring the state of nature
 - plan for special care and maintenance measures that are essential to follow up the intentions of the protection resolutions
 - surveillance plan.

Management of fish resources

<u>Objective</u>

• "The overriding aim is to create a sustainable and profitable fishing and aquaculture industry, thereby preserving the main elements of the settlement pattern, ensuring reliable and good jobs and enhancing the earning capacity of the industry."

Management of agriculture

<u>Objective</u>

• "The agricultural policy must ensure the consumers safe food of the proper quality by having sound food production and securing the resource base for agricultural production, improving basic know-how and contributing towards value creation and employment throughout the country based on the agricultural and associated industries."

4 d - e. Government agencies with management authority

National authorities (government agencies)

Directorate for Cultural Heritage

The Directorate for Cultural Heritage is the professional advisory and executive body for the Ministry of the Environment in matters relating to cultural heritage management. The Directorate has multidisciplinary expertise in aspects connected with archaeology, art history, ethnology, architectural history, restoration and land-use management, and is the thematic centre for data-based information on prehistoric monuments and sites, historical monuments and sites and cultural environments.

The Directorate has authority to issue exemptions to the automatic protection of archaeological and historical monuments and sites and marine archaeological monuments and sites. It can issue Protection Orders for post-medieval structures and sites.

The Directorate has overriding professional responsibility and responsibility to follow up the management of archaeological and historical monuments and sites performed by county council staff. It must aid local authorities to incorporate cultural heritage interests in their land-use planning and to manage archaeological and historical monuments and sites as valuable resources in their overall management of the environment.

Directorate for Nature Management

The Directorate for Nature Management is the professional advisory and executive body for the Ministry of the Environment in matters relating to nature management. It has multidisciplinary expertise in fields connected with ecology, land-use management and open-air recreation, and is the thematic centre for data-based information on ecology and biology. The Directorate has broad knowledge of the state of nature and authority to issue instructions on professional matters to the environmental conservation divisions in the offices of the County Governors within its own fields of responsibility. It endeavours to preserve biological diversity and protect and strengthen the right of common access.

The **Norwegian Nature Inspectorate** was set up under the terms of the Nature Inspectorate Act of 21st June 1996 and is intended to maintain an overall grip on the national effort to supervise the natural environment. It is supposed to create understanding and respect for regulations existing within this field and to prevent environmental crime. Its main tasks are to provide information and guidance, perform surveillance and monitoring, carry out registration and documentation, and care for, maintain and run sites.

A great deal of emphasis is placed on establishing good co-operation with others involved in supervising the natural environment, not least co-ordinating with the police in regard to surveillance tasks. The inspectorate is at present attached to the Directorate for Nature Management as a separate department, but most of the work takes place locally in areas where the need for improved supervision is greatest.

Directorate of Fisheries

The Directorate of Fisheries is the foremost advisory and executive body for the authorities in matters relating to the management of fisheries in Norway. Its principal task is to work systematically to further the interests and development of the Norwegian fishing and aquaculture industry to the best advantage of its employees, and so that the fish resources will give an optimal yield in the long term. The Directorate is the advisory and executive body for the Ministry of Fisheries in respect of matters relating to fisheries, aquaculture and the marine environment. It has been delegated many management tasks.

The Directorate of Fisheries is intended to help to fulfil the overriding objective of the Ministry of Fisheries to create a sustainable and profitable fishing and aquaculture industry, thereby preserving the main elements of the settlement pattern, ensuring reliable and good jobs and enhancing the earning capacity of the industry.

The fish resources are natural resources that are not subject to private ownership rights. The Government therefore has special responsibility to ensure that this resource is utilised in a manner that gives an optimal long-term yield.

Regional authorities

Government agencies

County Governor of Nordland

The County Governor is the representative of the Government at the county level and has special responsibility for co-ordinating Government-initiated activities in the county so that important national policies can be implemented in a balanced manner with respect to local authorities, for example.

A primary mission of the County Governor's Office is to ensure that local authorities fulfil the obligations for which they are largely responsible, namely to implement tasks concerned with information, surveillance and monitoring in important areas of society. This concerns the spheres of nature conservation, agriculture, civil contingency planning, social care, child care, nursery schools, municipal economy and general municipal organisation and administration.

The Division for Environmental Conservation is, among other things, responsible for:

- registering natural features that are worthy of protection
 - implementing conservation plans
 - · administering areas that are protected or preserved
 - nature monitoring
 - administering public areas for open-air recreation
 - · managing game and freshwater fish
 - looking after environmental concerns in planning and encroachment issues
 - surveillance, monitoring and considering matters related with pollution problems.

The Division for Agriculture is, among other things, responsible for:

- implementing Government agricultural policies in Nordland, in part by administering and verifying financial transfers to agriculture
- · looking after agricultural concerns in planning and encroachment issues
- controlling and supervising commercial activities in agriculture and forestry, including ensuring that they are carried out in accordance with the demands for sustainability and the maintenance of biological diversity
- being a centre of expertise for the development of multifunctional agriculture and a living cultural landscape.

In general terms, the County Governor's Office plays an important role in laying down premises for, and being a partner in, the planning efforts made by the local authorities and sectors to fulfil the terms of the Planning and Building Act and sectoral legislation.

The regional office of the Directorate of Fisheries in Nordland (Bodø)

The regional office of the Directorate of Fisheries is responsible for administrative and surveillance activities at the county and local authority levels. Its tasks may be categorised as follows:

- administrative procedures, information and guidance
- planning, strategies and implementing measures
- quality control
- surveillance of resources and regulations
- supervising aquaculture
- contingency work and monitoring of maritime areas.

County authorities

Nordland County Council

The county council is an independent political body at the regional level responsible, among other things, for planning matters and for the development of business and industry. It has been delegated authority under the terms of the Cultural Heritage Act and advises landowners and local authorities on all matters relating to archaeological and historical monuments and sites.

In this context, the county council has such tasks as:

- determining claims for exemption regarding protected post-Medieval cultural heritage objects
- taking decisions regarding provisional protection orders under the terms of the Cultural Heritage Act when archaeological or historical monuments or sites are in imminent danger of being removed or damaged
- participating in local authority land-use planning by contributing input on cultural heritage matters, and providing advice and guidance to local authorities and private individuals in the same context
- presenting objections to local authority planning proposals that threaten regional or national cultural heritage assets or, alternatively, reporting the matter to the Directorate for Cultural Heritage which, in some cases, will present the objection.

Local authorities

Vega Borough Council

The borough council has a number of tasks to fulfil in various areas of society. In the present context, it is its special primary responsibility for allocating the use of land and resources under the terms of the Planning and Building Act to which focus will be directed. When performing land-use planning, due consideration must be given to archaeological and historical monuments and sites, cultural environments and cultural landscapes, as well as to natural assets. Under the terms of the Act, the local authority may, among other things, regulate areas for preservation as well as, generally speaking, for agricultural purposes, nature protection and open-air recreation.

4f. Agreed plans related to the Vega Archipelago

Declaration of Intent in connection with the World Heritage Area

On 1st December 2002, the County Governor of Nordland, Nordland County Council, Vega Borough Council and representatives of local associations signed a Declaration of Intent which forms the basis for the future organisation of, and division of responsibility for, the World Heritage Area (*Annex 3*).

Local Agenda 21

Vega Borough Council agreed in spring 2001 to take part in a project called *Bærekraftige kommuner i praksis (Sustainable local authorities in practice)* led by the West Norway Research Foundation. The contract entails developing and testing an environmental management system for integrating and concretising sustainable practice in municipal activities (i.e. in day-to-day operations, provision of services, execution of authority and how the authority influences the local community in other ways). The drawing up of an environmental indicator system and verifying the extent to which the local community achieves its targets are being given priority in 2002.

Management and upkeep of the cultural landscape in the property

Planning and practical work are being funded by the County Governor of Nordland. The office will clarify where the effort associated with hay making, grazing and the eider business in the Vega Archipelago should be put in. This phase of the project is expected to conclude in December 2002. The work is being co-ordinated by local farmers' organisations.

The greater focus being placed on natural and cultural historical values in the Vega Archipelago has resulted in a variety of planning procedures to solve conflicts between business interests and nature management. This includes the management of geese and efforts to solve the problem of the overgrowing of the cultural landscape. This planning effort has made plain the necessity of the management authorities, those owning rights and others to acquire a complete overview of the situation and the challenges facing them in the archipelago.

The County Governor of Nordland encouraged Vega Borough Council to apply for funding to prepare a management and upkeep plan for the Vega Archipelago in co-operation with the landowners, the organisations in the agricultural industry and other appropriate parties. One aspect that was investigated here was the present use of the islands by the landowners, with a view to preparing targeted guidance. The work has clarified where and how the effort must be prioritised. The plan will be finalised during 2003.

Organisation of a network for cultural landscape work in Vega

In 1999, Vega Borough Council began a project called *Vega som tettsted* (*Vega as a built-up area*), and this work continued the following year through the project *Organisering av nettverk for kulturlandskaps arbeidet i Vega (Organisation of a network for cultural landscape work in Vega*). This project has been co-ordinated with the work being carried out for the project *Vega som verdensarv (Vega as a World Heritage Area*). On the local level, the network effort has helped to develop formal and informal contacts and fora between landowners, entitled users, management bodies, researchers, etc. The Nordic Cultural Landscape Conference *I ærfuglens rike (In the realm of the eider)* (organised by the Nordic Cultural Landscape Association) was held on Vega in August 2000. This conference placed the Vega Archipelago in a Nordic perspective and helped to enhance the work by widening the network co-operation regionally and nationally.

The bird tenders (egg and down business)

In connection with preliminary work performed for the preparation of a report entitled *Lokal forvaltningsplan for ærfugl (Local management plan for eiders)* a review has been undertaken of the present status and activities linked with the various egg and down collecting sites in the Vega district. The work done so far shows that if this unique cultural and natural history tradition of utilising the egg and down resources is not to die out, measures must be put in place immediately. Only 6 of the 16 sites that were in operation in 1986 are now being operated in one way or another.

Vega Borough Council has provided guidance for site operators who have applied for financial aid through relevant grant schemes run by agricultural and environmental management bodies. Through a scheme called *STILK* (Special measures in the cultural land-scape linked with farmland), the County Governor has supported a five-year project which intends, among other things, to document the resource requirements of the business. The County Governor has also supported eider operations in the Lånan Islands in response to annual applications made to the grant scheme *Tiltak som ivaretar biologisk mangfold i kulturlandskapet (Measures that safeguard biological diversity in the cultural landscape)*. These contributions have been vital in demonstrating that the work being done is esteemed, but do not provide a long-term solution for the landowners concerned, or for other operators who wish to have predictable external constraints for their work. Regarding the funding provided through the STILK scheme, an exception has been made from the rule that the business is run in combination with active farming; consequently, this is a scheme that ensures financial support for eider tenders who are not engaged in farming.

If the traditions associated with the egg and down sites are to survive in the future, it is essential that permanent financial arrangements are put in place to support the running costs. To direct focus on upholding the eider business, a Nordic Eider Symposium was held in Vega in June 2002.

Local management plan for eiders

A local management plan for eiders will be completed in 2003. It will include measures intended to ensure the continuation of the tradition of keeping eiders as 'domestic birds' by putting priority on the egg and down sites, combating predators and organising those operating the business. An association called *Nordland dunlag (Nordland Down Association)* is expected to be founded on 7th February 2003.

Local action plans for geese (barnacle and greylag geese)

The Norwegian Institute for Nature Research (NINA) and local research assistants undertake regular counts of birds from spring to autumn. These records are important in connection with the following-up of a local management plan for geese.

In co-operation with the scientists, Vega Borough Council has prepared two action plans, *Lokal tiltaksplan for kvitkinngås (Local action plan for barnacle geese)* and *Lokal tiltaksplan for grågås (Local action plan for greylag geese)*. The former was sent to the Directorate for Nature Management for approval in 1999, and the latter was initially approved by the County Governor of Nordland in 1998. This second plan has stimulated administrative and financial means for solving the problem of damage to grazing inflicted by greylag geese in Vega. Both plans have been revised and sent to the County Governor of Nordland and the Directorate for Nature Management for formal approval. Approval demands that the Ministry of Agriculture and the Ministry of the Environment make financial resources available. So far, the plans have resulted in certain administrative measures like an extended open season for greylag geese and egg collecting.

Investigating biological diversity and wildlife

Biological diversity has been given high priority nationally and the County Governor of Nordland provides financial support to investigate it within the various local authorities. This is one of the areas given priority in the *Local Agenda 21* work in Vega. The aim of the project is to acquire more knowledge about the biological diversity, better information about key biotopes and a good instrument to enable the natural values in Vega to be looked after and managed well in the future. An investigation of the biological diversity provides a sound scientific basis for much of the planning and many of the everyday activities in Vega.

The distribution of all the wildlife in Vega is being mapped by gathering local knowledge and reviewing the literature. This work is an important part of the task of recording the biological diversity and is important for tracing trends in land use relative to endangered habitats and haunts, and safeguarding localities for endangered species and areas with endangered and vulnerable habitats. The borough council's wildlife committee reviews the wildlife map annually, supplementing and correcting it. The map undergoes major revision every fourth year when the land-use part of the Municipal Master Plan is revised.

The biological diversity investigation, completed in summer 2002, was carried out by the municipal environmental conservation officer in co-operation with local natural history associations, private individuals and scientists from the Norwegian Crop Research Institute office at Tjøtta.

Elk project

The local elk stock on Vega is being studied by the Norwegian Institute for Nature Research (NINA), which has employed local research assistants to carry out regular tracking of radiotagged elk.

Vega Skjærgårdspark A/S (1993)

This company, owned by Vega Borough Council (65 %), neighbouring local authorities, the local transport company and other parties, has acquired a number of buildings on the islands. Its objective is to acquire and preserve properties in the archipelago around Vega with the intention of protecting them by using them for commercial purposes, tourism and recreational activities, thus making an active contribution to the preservation of the coastal culture of Norway for posterity.

The Vega Project

In 1984-1988, the Department of Archaeology at the Museum of Natural History and Archaeology in the University of Trondheim undertook a project entitled "*Hvordan sikre de verdifulle kulturminnene fra Vega fangststeinalder uten at kommunens utvikling hindres unødig?*" (*How can we secure the valuable prehistoric sites from Vega's Hunting Stone Age without unnecessarily hindering Vega's development?*). With financial support from the Ministry of the Environment, the fieldwork and research produced results that won international acknowledgement. Their active dissemination has led to the Stone Age cultural environment gaining enhanced status in the local community, and it now has a central place in the identity of Vega people.

4g. Sources and levels of funding

National environmental conservation authorities

There exists both funds specially earmarked for following-up national World Heritage obligations and instruments for following-up conservation and protection resolutions within the fields of nature and cultural heritage management.

World Heritage follow-up

The Government budget allocates funds annually to the budget of the Directorate for Cultural Heritage to administer existing World Heritage objects (Chap. 1429, Item 72.9) and from 2004 a corresponding item will figure on the budget of the Directorate for Nature Management (Chap. 1427). These two Directorates will thereafter be able to co-operate and work together on following-up the individual World Heritage Area as and when necessary.

Management of areas where nature is protected and management of protected species

Since there are various protected areas in Vega, money will be available for their management and surveillance through sums allocated in the national budget to the Directorate for Nature Management (Chap. 1427) and the Norwegian Nature Inspectorate (Chap. 1426).

Management of protected cultural heritage sites

Nordland County Council will be able to acquire funding for protected archaeological and historical monuments and sites in Vega from the budget of the Directorate for Cultural Heritage (Chap. 1429).

Norwegian Cultural Heritage Fund

This national fund was set up in 2002 and begins to function from 2003. Subject to certain conditions and specific rules, money can be sought from the fund on behalf of cultural heritage objects, buildings and environments that are worthy of being preserved.

National agricultural authorities

STILK funds Support for special measures in the cultural landscape related to agriculture is allocated by the County Governor of Nordland in response to applications. The grant scheme covers, among other things, measures concerned with archaeological and historical monuments and sites, cultural environments, the use of formerly cultivated land and biological diversity.

Norwegian Industrial and Regional Development Fund allocates grants for investments in, or associated with, farming. Such grants are additional to those which the farmer can acquire from ordinary credit institutions.

Agricultural Development Fund is allocated money through the income settlement for farmers and funds a variety of measures in farming, forestry and related rural industries. The borough council or the County Governor provide information about the scheme.

Direct national budget funding. Grants towards other investments are provided directly through items on the national budget. This concerns, for example, long-term investments and commercial activities in forestry.

National fishery authorities

Norwegian Industrial and Regional Development Fund The fishing and aquaculture industries can obtain support here from funds set aside for both national and regional policies, for instance to fund fishing vessels and development programmes. The Fund also administers special schemes allocated through the budget of the Ministry of Fisheries, for instance to condemn fishing vessels.

Income Settlement for Fishermen The Ministry of Fisheries allocates money annually to part-fund social schemes and structural initiatives in the fishing fleet.

The Ministry of Fisheries' Budget provides money for constructing and improving maritime infrastructures (ports, harbours, fairways, etc.). The item relating to coastal culture is particularly relevant for following-up World Heritage obligations.

County and borough council authorities

Based on their own priorities, the county council and the borough council may allocate funds for measures and projects concerned with following-up World Heritage interests.

4h. Sources of expertise and training in conservation and management techniques

Local level

Local inhabitants

Many local inhabitants have substantial practical and theoretical knowledge of local traditions and culture. Through their business activities, societies and organisations, as well as their documentation efforts, the local inhabitants help to pass on vital knowledge concerned with looking after values in the local community.

Organisations and societies

Vega people are specially active in organisations and associations, considering the size of the population. Among those with special expertise regarding areas, industries and traditions in the Vega Archipelago are:

- Vega Farmer's Union
- Vega Farmer's and Small-holder's Union
 Sørbygda Hunter's Cooperative (5

- Society for Women and Families in Vega

- Central Vega Landowner's Association
- Eastern Vega Marginal Land Association landowner's associations)
- Vega Fishermen's Union
- Friends of the Eiders

- Hysvær Landowner's AssociationVega Coastal Association
- Vega Home Arts and Crafts Association
- Friends of Bremstein

Borough Council Administration The Vega Borough Council administration includes such staff as a municipal environmental conservation officer, a municipal cultural affairs officer, a municipal planning officer and a municipal agricultural officer. These posts are held by persons with expertise within their fields.
Regional level

Nordland County Council

The county council has expertise in several fields. The following may be mentioned:

The <u>Planning Department</u> has special expertise in land-use planning. It gives advice to the local authority and provides external constraints and guidelines regarding land-use planning via the County Plan for Nordland.

The <u>Cultural Affairs Department</u> has, among other things, special expertise regarding areas containing archaeological and historical monuments and sites.

County Governor of Nordland

This office has expertise in several fields and has special responsibility for looking after the interests of the state within the county.

The following divisions may be mentioned: <u>Division for Environmental Conservation Affairs</u> has special expertise in the environmental field.

Agricultural Division has special expertise in agriculture.

Regional Offices of the Directorate of Fisheries in Bodø and Brønnøysund

These offices have expertise in all aspects of the fishing industry.

National level

Directorate for Cultural Heritage

This is a national body that manages the cultural heritage and has specialists in all fields within its area of responsibility.

Directorate for Nature Management and the Norwegian Nature Inspectorate

The Directorate is a national body concerned with nature management and has specialists in all fields within its area of responsibility. It includes a division that performs fieldwork

Norwegian Institute for Nature Research

This is a national research institute employing highly qualified specialists in natural history, biology, ecology, etc.

Norwegian Institute for Cultural Heritage Research

This is a national research institute employing highly qualified specialists in cultural history, etc.

Norwegian Crop Research Institute

This is a national organisation employing highly qualified specialists in botany, vegetation history, etc.

Universities and museums

Institutions with relevant special expertise in natural and/or cultural history are: the University of Tromsø, Nordland County Museum in Bodø, Rana Museum in Mo, Vefsn Museum in Mosjøen and the Museum of Natural History and Archaeology at the Norwegian University for Science and Technology in Trondheim.

4i. Visitor facilities and statistics

Communications

• The Vega Archipelago comprises a large, varied area with widely scattered attractions. The express passenger boat calls at the islands of Kilvær, Hysvær and Skogsholmen once or twice a day when specially requested. The archipelago otherwise lacks scheduled transport facilities. A local firm has boats available f or hire for sightseeing trips in the area. Due to the foul waters, local knowledge is essential to navigate a boat safely in parts of the property.

Statistics:

- Express passenger boats and ferries calling at Vega have statistics for 1996-2002 which show that a total of 66,088 passengers were transported in 2002.
- Estimated numbers of tourists: about 10,000 of the 48,000 passengers using the express boat service between Vega and Sandnessjøen travelled to Vega or the small islands themselves.
- Leisure boats: since the area has no organised harbours for visitors, few leisure boats call while passing along the fairway. Vega inhabitants make up the vast majority of visitors using their own boats.

Guiding, trails and publications

- Vega Coastal Trail, the World Heritage Trail, is a thematic route through the property, introducing visitors to its most valuable aspects.
- Mountain walks on Vega
- Trail on Lamøy, an island close to Vega.

A Stone Age Trail (in the buffer zone) goes through an area where finds from several phases of the Stone Age have been made. It is equipped with information signs, and a guide pamphlet is available.

- A web site, <u>www.verdensarv.no</u>, gives information about the area in Norwegian and English
- Tourist brochures and brochures on specific topics, including the egg and down business, botany and the local dialect.
- *Vega gjennom 10 000 år (Vega through 10,000 years)* is a book of articles and photographs dealing with the history, commercial life, flora and fauna of the Vega Archipelago.

Local museums and visitor centres

- The protected fishing village of Skjærvær with 20 refurbished buildings.
- E-huset (Eider House), a documentation centre for the egg and down business (Nes, in the buffer zone)
- The Coastal Association Museum, a former warehouse with an exhibition displaying fishing gear, engines and aspects of the coastal culture linked up to an authentic shop from the last century (Vegstein, in the buffer zone)
- Vega Village Museum has a display about the fisherman-farmer (Gladstad, in the buffer zone). The Farm Museum at Marken includes a smithy (in the buffer zone)
- "The Little Museum", a farm museum (in the buffer zone)

Overnight accommodation

- Skogsholmen
- 35 beds • Gåkkå Mathus (Hysvær) 6 beds
- Vega Havhotell (2004)
- Vega Kro & Motell
- 60 beds (in the buffer zone) 14 beds (Gladstad, in the buffer zone)
- Fishermen's shacks and farms
- 40 beds (Vega and Ylvingen, in the buffer zone)
- Grindbakken Camping
- 25 beds (in the buffer zone)

Restaurants and cafes

- Gåkkå Mathus (Hysvær)
- Øyan Holiday Centre (Skogsholmen)
- Vega Havhotell (in the buffer zone)
- Vega Kro & Motell (in the buffer zone)

Shops

- Vega branch of Sør-Helgeland Coop
- Joker
- Valla Handel
- · Kirkøy Handel
- Hobbyrommet

Rescue service

• The Rescue Service in Bodø has a Seaking helicopter which can reach the area in just over an hour.

4j. Property management plan and statement of objectives

• The Municipal Master Plan and the various management plans for the protected areas and species will be dealt with as a single entity (see Annex 3).

4k. Staffing

- · A part-time overseer is employed for the nature reserves on the island of Vega
- Consideration is being given to the option of placing all the future supervisory functions in the Helgeland district under the National Nature Inspectorate.

5 Factors affecting the area

5a. Development pressures

Farming

The depopulation of the property means that the farmland is now becoming overgrown. Even so, much of the former cultural landscape is still quite intact and it is vital that the ongoing upkeep continues. Farmland makes up 15-20 % of the property, and in 1998 20 % of this was characterised as not, or only slightly, overgrown.

In Hysvær, sheep grazing in summer keeps the landscape as it was when the islands were inhabited. It is desirable to make corresponding arrangements to transport animals by boat to other abandoned islands in the archipelago to utilise their grazing resources. To ensure that grazing animals are available in the vicinity, it is essential that farming continues in the buffer zone.

Farming on the 77 farms in the buffer zone was stable in 2002. Approximately 1700 ha of infield area were grazed or tilled.

- 58 milk farmers supplied 5 mill. litres of milk and 270,000 kg of meat
- 15 sheep farmers supplied 5500 kg of meat
- 8 pig farmers supplied 210,000 kg of meat
- The farms have an average size of 19.8 ha.
- On average, a Vega farm employs a labour force of 1.76 man-years.

In recent years, the national agricultural policy has led to a trend throughout most of Norway for small farms to be merged to create larger units to meet demands for greater efficiency and profitability. In the buffer zone in Vega, new land has recently been brought under cultivation to raise the basis for production on some farms.

The national agricultural policy for 2000-2001 included an aim to stimulate product development and niche production in keeping with consumer demand (White Paper no 92). Hopefully, this objective will, in the long term, stimulate the development of local products that can give greater profitability for meat production based on grazing on the islands.

In 1980-1989, conifers were planted on as many as 240 ha of the buffer zone (the total extent of plantations and woodland is approximately 900 ha). The planting of sitka spruce (*Picea sitchensis*) has changed the appearance of the landscape in parts of the buffer zone and is controversial. The plantations have had a positive effect on the stocks of elk, roe deer and hares, and improved the local climate in windy locations. However, they have produced poorer living conditions for species like curlews, eagle owls, geese and sea birds which nest and feed on the ground in farmland. In its "*Handlingsprogram for en bærekraftig utvikling*" (*Action programme for sustainable development*), Vega Borough Council has stated that one of its aims is to encourage thinning and tree felling in the plantations. No plans exist for new plantations.

Fisheries and aquaculture

Modern seaweed-harvesting methods used on the strandflat may have direct consequences for the environment for life in the area. Traditional hand-cutting of seaweed, and gathering seaweed for use as nesting material in connection with the egg and down business, are considered to have no significance. Ordinary fishing in the waters beyond the property has indirect significance for fish stocks, and thus for settlement and everyday life within the property.

Parts of Vega are well suited for pen-based fish cultivation. The best areas, having sufficiently deep water and at the same time being adequately sheltered, are in the northern, north-eastern and eastern parts of the Vega district.

In connection with work on the Coastal Zone Plan for Vega (1997–2000), a comprehensive study was made in 1987 of the suitability of localities for aquaculture and it concluded that the Kilvær, Hilholman-Tåvær areas and the area north of Hongset and Forøya were very well suited. This conclusion was confirmed by Akvaplan NIVA in a report "Egnethets-analyse for havbruk i Nordland fylke" ("Analysis of suitable areas for aquaculture in Nordland") in 2001. The Coastal Zone Plan for Vega has reserved these areas for fish cultivation, and a draft strategic plan for business and industry in Vega prioritises aquaculture.

Knowledge of the marine ecosystem and its biological resources is limited. More know-how and development of new technology can give considerable opportunities for aquaculture on Vega, too. This applies both to species already utilised and new ones.

Tourism

Tourism in the Vega Archipelago is still little developed, and there is no tradition for organised tourism as a commercial activity in Vega. The Vega district has only a few businesses offering overnight accommodation, food and drink, or tourist activities. The borough council wishes to encourage the development of sustainable ecotourism that focuses on enjoying and learning more about the values offered by the natural environment and the cultural landscape of the area (see section 5d).

Settlement and disturbance of the terrain

Ten new buildings have been erected within the property during the last 10 years. These are small holiday homes on islands with existing buildings. Otherwise, building activities within the property have been confined to ordinary upkeep of some existing buildings. The main problem that exists is the lack of use, and consequent increasing state of disrepair, of buildings, particularly those related to farming and fishing.

5b. Environmental pressures

Viewed in a broader perspective, the local environmental pressures in the area are few and not dramatic, but external environmental pressures may potentially occur as disasters (oil slicks).

Local environmental pressures

Discharges to the atmosphere or water

No industry or other activities that handle or produce environmentally hazardous materials are found within the property, or its immediate vicinity.

The handling of artificial fertilisers, livestock manure and spray chemicals in agriculture is controlled by national regulations that help to reduce the risk of run-off.

Most of the shipping along the Norwegian coast navigates the inner coastal fairway, which is situated between the property and the mainland. Because of the Coastal Current, any oil slicks here will primarily affect the mainland shores. The marine areas are characterised as clean.

The lake supplying drinking water for Vega, Okvatn, is situated within the property. It is not exposed to run-off from farmland.

Physical disturbances

No illegal building activities have been registered in the property in recent years. Vega Borough Council has issued orders to the owners of a number of sand and gravel pits within the buffer zone to cease extraction and tidy up the sites. This work has not been completed.

Behaviour and activities

Some illegal boat traffic has been recorded within the property. This concerns traffic in periods and at places with particularly vulnerable bird life.

Poaching and illegal egg collecting take place, but their extent is not known.

External environmental pressures

Discharge to water

Large vessels sail along the Norwegian coast west of the property. These pose a potential pollution hazard and accidents have occurred earlier (MS Deyfovos 1981). Increasing transport of oil, in part to and from Russia, will constitute a significant threat in the future.

Large, commercial deposits of oil and gas exist on the Halten Bank, off the coast of Nordland. The northernmost field, the Norne Field, 200 km west of the Vega Archipelago, began production in 1997. Normally, tanker transport constitutes a greater potential for oil pollution than discharges from installations.

Oil protection measures are organised through an intermunicipal committee located in Brønnøysund, approximately 16 km south-east of Vega. Equipment to contain and take up oil slicks, etc. is stored on the remote island of Træna, some 90 km north of Vega. In the event of a disaster, a contingency plan exists which ensures that relevant specialist authorities, at short notice, form a joint committee to co-ordinate an emergency action.

Traces of radioactivity have been found in the sea water along the Norwegian coast. Sellafield in England and illegal discharges of ballast water from vessels in the Norwegian Sea may be potential sources of this contamination.

Discharges to the atmosphere

No changes to the environment in the property have been registered which indicate that long-transported air pollution constitutes a problem today. The Norwegian Institute for Air Research monitors the state of the air at Majavatn, on the mainland.

Vega was affected by some radioactive precipitation as a result of the Chernobyl Disaster in 1986. The amount of contamination was small and no radioactivity is now recorded in mutton produced in the area.

5c. Natural disasters

Tremendous sea-bed avalanches have occurred in the Norwegian Sea during the past 10,000 years generating huge waves (mega-tsunamis) which struck the Norwegian coast. No knowledge exists in 2002 of potential natural disasters that might hit the property in a manner that makes it appropriate to have special contingency plans, or other measures. Some people regard the heavy grazing of the kelp forests by sea urchins as a natural disaster. Uncertainty as to the cause of this event, a natural cycle or the result of imbalance in the utilisation of resources means that more research is required to form a basis for a plan of action.

5d. Visitor and tourism pressures

Tourism in the Vega Archipelago is still little developed and there is no tradition for organised tourism as a commercial activity in Vega. The Vega district has only a few businesses offering overnight accommodation, food and drink, or tourist activities. The borough council wishes to encourage the development of sustainable ecotourism that focuses on enjoying and learning more about the values offered by the natural environment and the cultural landscape of the area.

Positive impacts

It is expected that a development of tourism where the basic capital is represented by values related to the traditions and landscape that can be experienced in Vega will help to intensify the work being done with the upkeep and maintenance of the cultural landscape. Imparting of knowledge will be improved through the training of guides and other personnel. Controlled, planned development of tourism will be able to substantially stimulate the maintenance and upkeep of the buildings in the property.

Measures can readily be put in place at the three ports of call for scheduled passenger vessels from the mainland to make it easy to control the number of visitors and facilitate efficient provision of information about any necessary limitations in movement.

Negative impacts

A development of tourism that leads to a significant increase in the number of visitors to the islands may have negative consequences for the bird life. Landing is forbidden and motorised traffic is restricted in particularly vulnerable areas (bird sanctuaries and other protected areas).

Steering future visitors within the area is unlikely to prove a significant problem. Uncontrollable visits by leisure boats are thought to pose a minor threat because of the difficult waters within the property.

A large radar installation stands on the summit of Gullsvågfjellet and can be considered to detract from the aesthetic qualities of the landscape. The small area it takes up has been omitted from the area proposed for nomination to the World Heritage List (*see Chap. 1f and Annex 1, Map A*).

5e. Number of inhabitants within the area and the buffer zone

On 31st December 2002, 2 people resided within the property. Some 150-200 people reside in the property in summer.

On 31st December 2002, 1413 people resided in the buffer zone.

6 Monitoring

The responsibility for monitoring is shared among a number of parties, some of whom have formal responsibility (see Chap. 4) and some scientific responsibility (they carry out the work). Some of the statistical material can be used directly, but the more sophisticated scientific investigations require analysis over time.

A number of investigations have been carried out during the past 30-40 years which have direct or indirect significance for the conservation and management of values in the Vega Archipelago and the buffer zone.

6a and b. Key indicators for measuring the state of conservation and administrative arrangements for monitoring the property

In November 2002, Vega Borough Council elected to introduce an environmental control system based on key indicators (core indicators and supplementary sustainability indicators) which, annually, provide a basis for calculating key figures. This system was tested in 2001, and the number of indicators was increased for 2002 on the basis of the experience gained then. The monitoring covers the entire Borough of Vega (the Vega Archipelago and the buffer zone) and describes the trends in the area as a whole. The system will be important for managing the property.

Key indicators have been drawn up to monitor the following: *Quality of life – Local air pollution – Resource management – Biological diversity –Energy and climate – Sustainable production and consumption – Municipal operations.*

Relevant registrations and key figures which only cover the proposed World Heritage Area will be:

Topic: Agriculture and cultivated land in the Vega Archipelago

Background registrations from a selection of islands in the archipelago have supplied data for, among others, the following key indicators (*L. Hatten 2002, Norwegian Crop Research Institute, Tjøtta*):

Name of landowner – Grazing regime – Livestock race(s) – Grazing pressure – Number of animals – Description of ecology – Archaeological and historical monuments and sites – Technical installations – Extent of overgrowing and species concerned – Types of vegetation – Species – Threats.

The draft report from this project (dated 5th November 2002) recommends additional measurements of:

- Stand sizes of vulnerable and rare species associated with calcareous grassland, calcareous heath and rich mire
- Distribution of overgrowing species such as common juniper and heather
- Trends in species densities in calcareous grassland, calcareous heath and rich mire
- Distribution of areas intended to be secured by care and upkeep.

Topic: Egg and down business

In connection with work carried out to prepare the Management Plan for Eider Ducks, figures were acquired in 1999 for the following key indicators:

Number of people and sites involved – Number of nesting eiders – Number of wild eiders – Number of 'tame' eiders – Number of eider houses – Status of the operation – Processing.

The people tending the eiders have submitted a status report for the 2001 season.

The founding (February 2003) of an association for people involved in the egg and down business will facilitate the systematic reporting of key figures such as: *annual number of nesting birds* and *annual production of eggs and down at the individual sites*.

Topic: Fisheries

Catch statistics and reports from the fishery authorities provide annual data on the activity and trends in the local fishing fleet.

Relevant key indicators are: Number of people employed – Number of vessels – Volume of catch – Type of fish.

Topic: Management of archaeological and historical monuments and sites, and cultural environments

Number of buildings, and their immediate surroundings, protected by individual protection orders: 32

Number of automatically protected archaeological and historical monuments or sites: 238

The municipal building and development office and the cultural affairs officer in Vega, along with the National Coastal Administration as the owner of Bremstein Lighthouse, maintain a continuously updated survey of changes to standing buildings. Key indicators are: *Number of building applications (new/rebuilding) – Status for Skjærvær – Status for Bremstein Lighthouse*.

Local supervisors, the police and the Norwegian Nature Inspectorate will report annually on any *guiding* and *environmental crime* taking place within the property.

Protected areas/category	Number Area	(hectares)
Protected landscape	1	9317
Nature reserve	4	12 033
Bird sanctuary	4	1030

Topic: Nature management

As the authority in charge of their management, the County Governor of Nordland is responsible for maintaining a watch on the status of the protected areas. The management plan, expected to be completed in 2003, will pave the way for arrangements to monitor the values being protected.

The registration of biological diversity in Vega (completed in 2002) and future supplements will provide background data for a number of key indicators.

Local supervisors, the police and the Norwegian Nature Inspectorate will report annually on any *guiding* and *environmental crime* taking place within the property.

Topic: Tourism

Figures and information on *overnight stays, length of stay, activities* and *number of visitors* in the area and the buffer zone will be supplied by the tourism businesses in Vega and the transport company operating scheduled services to Vega.

6c. Results of previous reporting exercises

The following is just a small selection of the relevant data available for the area. Relevant key indicators will be defined in detail in connection with the comprehensive management plan being prepared, and will provide a basis for monitoring the conservation values and acquiring data for the UNESCO Periodic Reporting Programme.

Topic: Agriculture and cultivated land	
Data on types of vegetation, species, encroachments, extent of over-	
growing, use, etc. are available for 45 islands in the Vega Archipelago	
through a special project: Botanical investigations and proposals for care	
and upkeep in parts of the Vega Archipelago (L. Hatten, Norwegian Crop	
Research Institute, Tjøtta. Unpublished draft of 5th November 2002)	
Topic: Egg and down business	1999
Number of operative sites	7
Number of operatives	12
Number of eiders nesting at the operative sites	561
*records are incomplete	
Topic: Avifauna	2002
Species recorded by 1.5.2002	222
Number of species breeding or assumed to be breeding	110
*Population figures are available for a number of species	
Topic: Fisheries (Vega Archipelago + buffer zone)	2001
Employees in the fishing industry	84
Registered fishermen	73
Registered fishermen with fishing as their main or sole occupation	37
Number of vessels in the Vega fleet	54
Total catch within and outside the area (in tons)	2394
Topic: Tourism	2001
Number of tourism businesses / beds in the Vega Archipelago	2/41
Number of tourism businesses / beds in the buffer zone	4 / 139
Number of passengers travelling to the buffer zone by express	66 088
boats and ferries (total)	
Number of people on the express boat to the Vega Archipelago	ca 10 000

World Heritage Convention - Norwegian Nomination Vegaøyan – The Vega Archipelago 2003-01-17

7 Documentation

7a. Photographs

Annex 2 100 colour slides with descriptions.

7b. Copies of management plans

Annex 3 Present management framework and plans.

7c. Bibliographies

Background material prepared specially for the World Heritage Nomination

Johansen, R. & Næss, I.E. 2002. Liv og virke i Vegaøyene. Vurderinger av lokalhistorisk karakter. 66 pp. Unpubl.

Nordgulen, Ø. 2002. Geology. Vega municipality. NGU. 10 pp. Unpubl.

- Christie, H. 2002. Undervannsmiljøet i farvannet rundt Vegaøyene. NINA. 9 pp. Unpubl.
- Follestad, A. 2002. Vega som verdensarvområde fauna. NINA. 15 pp. Unpubl..
- Hatten, L., Sickel, H. & Norderhaug, A. 2002. Vegetasjonen i Vega. Norsk institutt for planteforskning, Tjøtta fagsenter. 17 pp. Unpubl.
- Bjerck, H.B. 2002. Vegas kulturmiljø fra steinalderen. Vitenskapsmuseet, NTNU. 16 pp. Unpubl.
- Berglund, B. 2002. Vega-øyene fiskerbondens og maktens landskap. Vitenskapsmuseet, NTNU. 13 pp. Unpubl.

Selected documents, draft plans and adopted plans concerning nature conservation management, cultural heritage management, physical planning and management

Nordic Council of Ministers 1996. Nordic World Heritage. Nord 1996:31. Copenhagen. 217 pp. Ministry of the Environment 2002. Tentative List of Norway, letter to UNESCO of 01.10.2002.

- Miljøverndepartementet (Ministry of the Environment) 1991. St.meld.nr.62 (1991-92). Ny landsplan for nasjonalparker og andre større verneområder i Norge.
- Regjeringen (Government of Norway) 2002. Kystverneplan for Nordland. Kongelig resolusjon av 06.12.2002.
- Vega kommune (Vega Borough Council) 2001. Kommuneplanens arealdel 2000-2012. 19 pp and map 1:75 000.
- Vega kommune (Vega Borough Council) 1997. Kystsoneplan Vega. Kommunedelplan 1997-2000 (Draft). 43 pp.
- Hatten, L., 2002. Botaniske undersøkelser og forslag til skjøtsel av deler av øygarden i Vega kommune. Planteforsk Tjøtta fagsenter. Draft of November 5th 2002. 27 pp.
- Vega kommune (Vega Borough Council) 2002. Forvaltningsplan for ærfugl (Draft). 8 pp.
- Vega kommune (Vega Borough Council) 1999. Lokal tiltaksplan for hvitkinngås på Vega (Draft). 7 pp.
- Vega kommune (Vega Borough Council) 2000. Lokal forvaltningsplan for grågås i Vega kommune 2000-2003. 15 pp.

Vega kommune (Vega Borough Council) 2000. Lokal Agenda 21. 14 pp.

Sources

- Alm, T., Elven, R. & Fredriksen, K. 1987a. Bidrag til karplantefloraen på Nordlandskysten 1. Polarflokken 11-1, 45-85.
- Alm, T., Elven, R. & Fredriksen, K. 1987b. Bidrag til karplantefloraen på Nordlandskysten 2. Polarflokken 11-2, 3-74.
- Alterskjær, K. 1985. Eldre steinalder. Pp. 20-60 in: Pettersen, K. & Wik, B. (eds.). Helgeland Historie 1. Helgeland Historielag, Mosjøen.
- Andersen, B.G., Bøen, F., Nydal, R., Rasmussen, A. & Vallevik, P.N. 1981. Radiocarbon dates of marginal moraines in Nordland, North Norway. Geografiska Annaler 63A, 155-160.
- Andersen, B.G., Bøen, F., Rasmussen, A., Rokoengen, K. & Vallevik, P.N. 1982. The Tjøtta glacial event in southern Nordland, North Norway. Norsk Geologisk Tidsskrift 62, 39-49.
- Andersen, B.G., Mangerud, J., Sørensen, R., Reite, A., Sveian, H., Thoresen, M. & Bergstrøm, B. 1995. Younger Dryas ice marginal deposits in Norway. Quaternary International 28, 147-169.
- Andersen, I. 1985. Vegas historie, del II
- Andersen, I. 1985. Vegas historie, del III
- Andersen, I. 1986. Vegas historie, del IV
- Andersen, I. 1987. Vegas historie, del I
- Andersen, I. & Bremstein, K. 1992. Bremstein. Vega kulturkontors historieskrifter.
- Andersen, I. & Ronland, A. 1990. Organisasjonshistorie i 100 år, Vega Distriktsfiskarlags 50 års jubileum.
- Andersson, Å., Follestad, A. & Nilsson, L. 1997. Migration patterns of Nordic greylag geese (*Anser anser*). Pp. 1298-1299 in: Birkan, M., van Vessem, J., Havet, P., Madsen, J., Trolliet, B. & Moser, M. (eds.). Proceedings of the Anatidae 2000 Conference, Strasbourg, France, 5-9 December 1994. Gibier Faune Sauvage, Game Wildl., 13.
- Andersson, Å., Follestad, A., Nilsson, L. & Persson, H. 2001. Migration of Nordic Greylag Geese Anser anser. Ornis Svecica 11, 19-58.
- Bargel, T.H. 2001. Digitalt løsmassekart over Nordland fylke. Norges geologiske undersøkelse.
- Barnes, C.G. & Prestvik, T. 2000. Conditions of pluton emplacement and anatexis in the Caledonian Bindal Batholith, north-central Norway. Norsk Geologisk Tidsskrift 80, 259-274.
- Barnes, C.G., Prestvik, T., Nordgulen, Ø. & Barnes, M.A. 1992. Geology of three dioritic plutons in Velfjord, Nordland. Norges geologiske undersøkelse Bulletin 423, 41-54.
- Barnes, C.G., Yoshinobu, A., Prestvik, T., Nordgulen, Ø., Karlsson, H. & Sundvoll, B. 2002. Crustal melting associated with emplacement of mafic arc plutons, Bindal Batholith, Norway. Journal of Petrology, in press.
- Berglund, B. 1991. I dunværene på Helgelandskysten. Spor 2 1991. NTNU Vitenskapsmuseet. Trondheim.
- Berglund, B. 1994. "Innledning" og "Saga, sentra og kystbosetning". In: Berglund, B. (ed.). Helgeland Historie 2. Helgeland Historielag, Mosjøen.
- Berglund, B. 1995. Tjøtta-riket En arkeologisk undersøkelse av maktforhold og sentrumsdannelser på Helgelandskysten fra Kr.f. til 1700 e.Kr. Dr.philos. avhandling, Fak.ark./ AVH, Universitetet i Trondheim.
- Berglund, B. 1998. Historisk arkeologi og utvikling av arkeologi i konfrontasjon med tekst og bilde. META 1998, 2. Lund.
- Berglund, B. 2001. "Betydninger" og "Mat fra sjø og land". In: Spor 2 2001. NTNU Vitenskapsmuseet. Trondheim.
- Bertelsen, R. 1989. Gårdshaugene i Nord-Norge. Eksempel på nordatlantiske teller. Hikuin 15.

- Binns, K.S. 1985. De første tegn til jordbruk. Pp. 148-171 in: Pettersen, K. & Wik, B. (eds.). Helgeland Historie 1. Helgeland Historielag, Mosjøen.
- Birkeland, A., Nordgulen, Ø., Cumming, G.L. & Bjørlykke, A. 1993. Pb-Nd-Sr isotopic constraints on the origin of the Caledonian Bindal Batholith, central Norway. Lithos 29, 257-271.
- Bjerck, H.B. 1986. Ti generasjoner fangstfolk på Vega for 8–9000 år siden. Spor 1 1986, 24-28. Trondheim.
- Bjerck, H.B. 1987. Steinalderkniven. Spor 2 1987, 38-40. Trondheim.
- Bjerck, H.B. 1988. Vegaprosjektet: Et eksperiment i forskningsstyrt kulturminne-forvaltning. Tromura. Kulturhistorie 8. Foredrag på det norske arkeologmøte i 1986, 9-26. Tromsø.
- Bjerck, H.B. 1989a. Forskningsstyrt kulturminneforvaltning på Vega, Nordland. En studie av steinaldermenneskenes boplassmønstre og arkeologiske letemetoder. Gunneria 61. Trondheim. 212 pp.
- Bjerck, H.B. 1989b. Vega Opplev steinalderøya. UNIT, Vitenskapsmuseet, Trondheim. 28 pp.
- Bjerck, H.B. 1990. Mesolithic site types and settlement patterns at Vega, Northern Norway. Acta Archaeologica 60, 1989, 1-32.
- Bjerck, H.B. 1991. Boreal foragers at Vega, Northern Norway. A study of site types and site patterns. Pp. 123-134 in: Grøn, O., Engelstad, E. & Lindblom, I. (eds.), Social Space Human Spatial Behaviour in Dwellings and Settlements. Odense University Press.
- Black, J.M. 1998. Conservation and management plan for the Svalbard population of Barnacle goose. Prepared for the Directorate for Nature Management and Scottish Natural Heritage. DN-rapport 1998/2. 111 pp.
- Black, J.M., Deerenberg, C. & Owen, M. 1991. Foraging behaviour and site selection of Barnacle geese *Branta leucopsis* in a traditional and newly colonised spring staging habitat. Ardea 79, 349-358.
- Braathen, A., Nordgulen, Ø., Osmundsen, P.T., Andersen, T.B., Solli, A. & Roberts, D. 2000. Devonian, orogen-parallel, opposed extension in the Central Norwegian Caledonides. Geology 28, 615-618.
- Brattegard, T. & Holthe, T. 1995. Kartlegging av egnede marine verneområder i Norge. Utredning for DN No. 1995-3. 180 pp.
- Brattegard, T. & Holthe, T. 1997. Distribution of marine, benthic macro-organisms in Norway. Utredning for DN No. 1997-1. 410 pp.
- Bustnes, J.O., Christie, H. & Lorentsen, S.H. 1997. Sjøfugl, tareskog og taretråling: en kunnskapsstatus. NINA Oppdragsmelding 472: 1-43.
- Christiansen, P.R. 1999. Namdalens historie 1600 1837.
- Christie, H. 1995. Kartlegging av faunaen knyttet til tareskogen i Froan; variasjon i en eksponeringsgradient. NINA Oppdragsmelding 368, 1-22.
- Christie, H. 1998. Økologiske effekter av varm sommer 1997 kråkebolletetthet langs kysten av Midt-Norge. Report to Directorate for Nature Management (DN), Feb. 1998, 9 pp.
- Christie, H. & Rinde, E. 1995. Endringer i kråkebolleforekomst, kråkebolleparasitt og bunnalgevegetasjon langs kysten av Midt-Norge. NINA Oppdragsmelding 359, 1-39.
- Christie, H. & Rueness, J. 1998. Tareskog. Pp. 164-189 in: Rinde, E., Bjørge, A., Eggereide, A., Tufteland, G. (eds.) Kystøkologi, den ressursrike norskekysten. Universitetsforlaget, Oslo.
- Christie, H., Fredriksen, S. & Rinde, E. 1998. Regrowth of kelp and colonization of epiphyte and fauna community after kelp trawling at the coast of Norway. Hydrobiologia, 375/376, 49-58.
- Christie, H., Leinaas, H.P. & Skadsheim, A. 1995. Local patterns in mortality of the green sea urchin, *Strongylocentrotus droebachiensis*, at the Norwegian coast. Pp. 573-584 in: Skjoldal, H.R., Hopkins, C., Erikstad, K.E. & Leinaas, H.P. (eds.). Ecology of fjords and coastal waters. Elsevier Science B.V.

- Coldevin, A. 1943. Jordegods og storgårder i Nord-Norge. F.Bruns bokhandels forlag, Trondheim.
- Cunliffe, B. (ed.) 1997. Prehistoric Europe: an illustrated history. Oxford University Press, Oxford.
- Dahl, O. 1912. Botaniske undersøkelser i Helgeland I. Vidensk. selsk. Skr. I, Mat.-Nat. Kl. 1911, 6.
- Dahl, O. 1915. Botaniske undersøkelser i Helgeland I. Vidensk. selsk. Skr. II, Mat.-Nat. Kl. 1914, 4.
- Degelius, G. 1982. The lichen flora of the island of Vega in Nordland, Northern Norway. Acta Regiae Societatis Scientiarum et Litterarum Gothoburgensis Botanica 2. Kungl. Vetenskaps- och Vitterhets-Samhället, Göteborg.
- Drivenes, E.-A., Hauan, A.M. & Wold, H. (eds.) 1994. Nordnorsk kulturhistorie. Gyldendal.
- Dybdahl, A. 1981. Tiendepenningskatten 1521/22 som kilde for vurdering av bosetting og folketall i Nord-Norge. Pp. 283-304 in: Krag, C. & Sandnes, J. (eds.). Norske historikere i utvalg. 5. Nye middelalderstudier, bosetting og økonomi.
- Elstad, Å. 1990. 30 000 mann rusta årlig til Lofotfisket. Kysten 4: 6-10.
- Elven, R., Sickel, H. & Hatten, L. 1993. Havsivaks (*Bolboschoenus maritimus*) ny for Nord-Norge. Polarflokken 17-1, 155-160.
- Elven, R., Alm, T., Edvardsen, H., Fjelland, M., Fredriksen, K.E. & Johansen, V. 1988a. Botaniske verdier på havstrender i Nordland. A. Generell innledning. Beskrivelse for region Sør-Helgeland. Økoforsk rapport 1988, 2A.
- Elven, R., Alm, T., Edvardsen, H., Fjelland, M., Fredriksen, K.E. & Johansen, V. 1988b. Botaniske verdier på havstrender i Nordland. D. Kriterier og sammendrag. Økoforsk rapport 1988, 2A.
- Elven, R., Elven, A., Hatten, L., Norderhaug, A. & Sickel, H. 1993. Skålvær. Slåttemarker eller sauebeite? Unpubl. report to Directorate for Nature Management.
- Farbregd, O. 1975. DKNVS Museet, Antikvarisk avdeling Tilvekst 1972. Trondheim.
- Fiskeridirektoratet 2002. Fangstrapport Vega kommune. Fangststatistikk for kommuner i Nordland fylke. Fiskeridirektoratet Bergen.
- Follestad, A. 1988. Studies on Greylag Goose (*Anser anser*) in Norway. In: Abstracts, XI Nordic Congress on Game Research, 5-9 September 1988, Espoo, Finland. ISBN 951-8914-08-7.
- Follestad, A. 1989a. Halsmerking av grågås i Norge. Vår Fuglefauna 12, 80.
- Follestad, A. 1989b. Halsmerking av grågås. Naturnytt 1 1989, 3.
- Follestad, A. 1989c. Halsringer på gjess. Skitt jakt!, 13.
- Follestad, A. 1989d. Studies on the Greylag Goose in Norway. International symposium on western palearctic geese, Kleve, West Germany 7-12.2.1989.
- Follestad, A. 1991. Halsmerking av grågås i Norge 1990. Ringmerkaren 3, 157-158.
- Follestad, A. 1992a. Høstbestanden av grågås i Norge. Vår Fuglefauna 15, 85-87.
- Follestad, A. 1992b. Jakt på grågås. P. 6 in: Skitt Jakt 1992, Directorate for Nature Management, Trondheim.
- Follestad, A. 1992c. Jakt på grågås. Vår Fuglefauna 15, 156-157.
- Follestad, A. 1994a. Background for a management plan for geese in Norway. NINA Utredning 65: 1-78 (In Norwegian, English summary).
- Follestad, A. 1994b. Grågås <u>Anser anser</u>. P. 62 in: Gjershaug, J.O., Thingstad, P.G., Eldøy,
 S. & Byrkjeland, S. (eds.). Norsk fugleatlas. Norsk Ornitologisk Forening, Klæbu.
- Follestad, A. 1997a. Changes in the timing of breeding and migration in the greylag goose: consequences of hunting? XIII Nordic Congress of Wildlife Research, Trondheim 7-9 Feb. 1997.

- Follestad, A. 1997b. Hunting and change in the autumn migration period of the greylag goose (*Anser anser*) in Norway. Pp. 1315-1316 in: Birkan, M., van Vessem, J., Havet, P., Madsen, J., Trolliet, B. & Moser, M. (eds.). Proceedings of the Anatidae 2000 Conference, Strasbourg, France, 5-9 December 1994. Gibier Faune Sauvage, Game Wildl., 13.
- Follestad, A. 2000a. Breeding studies: Norway. Greylag Goose Workshop 2000, Goose 2000 Conference, Wetlands International, den Haan, Belgium, 8-11 January 2000.
- Follestad, A. 2000b. Recent developments in the Greylag Goose populations: Norway. Greylag Goose Workshop 2000, Goose 2000 Conference, Wetlands International, den Haan, Belgium, 8-11 January 2000.
- Follestad, A. 2001a. Early autumn migration in Norwegian Greylag Geese: an effect of hunting? Pp. 25-26 in: Patterson, I. (ed.). Proceedings of the 6th Annual Meeting of the Goose Specialist Group of Wetlands International in Roosta, Estonia, 27 April - 2 May 2001. Wetlands International Goose Specialist Group Bulletin No. 9, supplement, 2001. Tartu, Estonia.

Follestad, A. 2001b. Grågås - til glede eller besvær? Jakt & Fiske 8 2001, 86-92.

- Follestad, A. 2001c. Hvordan forebygge beiteskader av gjess. Norges Bondelag, brochure, 8 pp.
- Follestad, A. 2002. Halsmerking av grågås i Norge 1986 2001: Oversikt over antall merkede individer. Ringmerkaren 15.
- Follestad, A. & Bø, T. 1993. National report Norway. Pp. 159-162 in: Roomen, M. van & Madsen, J. (eds.). Waterfowl and agriculture: Review and future perspective of the crop damage conflict in Europe. Proceedings of the international workshop "Farmers and waterfowl: Conflict or Coexistence", Lelystad, The Netherlands 6-9 October 1991. IWRB Special Publication No. 21.
- Follestad, A. & Golovkin, A. 2000. Greylag Goose Anser anser. Pp. 37-39 in: Anker-Nilssen, T., Bakken, V., Strøm, H., Golovkin, A.N., Bianki, V.V. & Tatarinkova, I.P. (scientific eds.). The status of marine birds breeding in the Barents Sea region. Norsk Polarinst. Rapport 113, 1-213.
- Follestad, A. & Shimmings, P. 2001. Recent changes in the spring staging area in Norway for Svalbard Barnacle Geese. Pp. 24-25 in: Patterson, I. (ed.). Proceedings of the 6th Annual Meeting of the Goose Specialist Group of Wetlands International in Roosta, Estonia, 27 April - 2 May 2001. Wetlands International Goose Specialist Group Bulletin No. 9, supplement, 2001. Tartu, Estonia.
- Follestad, A., Nygård, T., Røv, N. & Larsen, B.H. 1988. Distribution and numbers of moulting non-breeding Greylag Geese in Norway. Wildfowl 39, 82-87.
- Gaustad, F. 1977. Arkeologiske funn i Vega. Vega bygdebok Bd. III. Mosjøen.
- Grenager, B. 1955. Kvantitative undersøkelser av tareforekomster i Sør-Helgeland 1952 og 1953. Norsk Institutt for Tang og Tareforskning, Report no. 7. 70 pp.
- Grøttland, K.L. 1978. Daglig brød, daglig dont. Universitetsforlaget.
- Gullestad, N., Owen, M. & Nugent, M.J. 1984. Numbers and distribution of Barnacle geese *Branta leucopsis* on Norwegian staging islands and the importance of the staging area to the Svalbard population. Nor. Polarinst. Skr. 181, 57-65.
- Gustavson, M. 1978. Caledonides of north-central Norway. Geological Survey of Canada, Paper 78-13, 25-30.
- Hafsten, U. 1966. Den senkvartære forekomst av tindved (Hippophäe rhamnoides L.).
- Hansen, K. 1996. ...Du gamle og bøiede slider.... Husmenn i Tjøtta herred, utbredelse, levekår og sosial forhold ca. 1865 1900.
- Hansen, K. 1998. Skålvær, et helgelandsk handelssted i vekst og forfall.
- Hatten, L. 1997a. "Andemat-elementet" på Helgelandskysten økologi og mulig spredning med hvitkinngås (*Branta leucopsis*). Univ. i Oslo. Botanisk Hage og Museuem. Hovedfagsoppgave, unpubl.

- Hatten, L. 1997b. "Andemat-elementet" på Helgelandskysten økologi og mulig spredning med hvitkinngås (*Branta leucopsis*). Cand. scient.-oppgave i botanikk. Botanisk Hage & Museum, Univ. Oslo.
- Hatten, L. & Sickel, H. In prep. Forvaltningsplan for Lånan, Vega kommune. Rapport til Fylkesmannen i Nordland.
- Hatten, L., Follestad, A. & Norderhaug, A. 1999. Utmarksbeite på Helgelandskysten en løsning på flere problemer. Unpubl. report to the Research Council of Norway. (In Norwegian).
- Hatten, L., Follestad, A. & Norderhaug, A. 2001. Utmarksbeite på Helgelandskysten en løsning på flere problemer. Rapport fra forprosjektet. Høgskulen i Sogn & Fjordane, Report 2/2001, 58 pp.
- Heldal, T. 2001. Ordovician stratigraphy in the western Helgeland Nappe Complex in the Brønnøysund area, north-central Norway. Norges geologiske undersøkelse Bulletin 438, 47-61.
- Helland, A. 1907. Norges land og folk. XVIII, Nordlands amt. Bd. I-III. Aschehoug, Kristiania.
- Holtedahl, H, 1998. The Norwegian strandflat a geomorphological puzzle. Norsk Geologisk Tidsskrift 78, 47-66.
- Johansen, R. 1999. En beretning om norske øyværinger i Columbia River.
- Johansson, A.D. 2000. Ældre stenalder i Norden. SDA. Farum.
- Kjellmo, E. 1996. Båtrya: i gammel og ny tid. Orkana, Oslo. 136 pp.
- Kollung, S. 1967. Geologiske undersøkelser i det sørlige Helgeland og nordlige Namdal, Norges geologiske undersøkelse Bulletin 254, 95 pp.
- Leinaas, H.P. & Christie, H. 1996. Effects of removing sea urchins (*Strongylocentrotus droebachiensis*): Stability of the barren state and succession of kelp forest recovery in the east Atlantic. Oecologia 105, 524-536.
- Lillegaard, L.B. & Mentzoni, S. 1989. Alstahaug B.2. Mellom to kriger. Alstadhaug kommune, Alstadhaug. 431 pp.
- Lillegaard, P. & Lillegaard, L.B. 1979. Alstahaugboka. Alstadhaug kommune, Alstadhaug.
- Lillehammer, A. 1994. Aschehougs Norgeshistorie Bind 1, Fra jeger til bonde inntil 800 e.Kr. Aschehoug.
- Loonen, M. & Follestad, A. 2001. Geographical variation in the timing of wing moult in Greylag Geese *Anser anser*. Journal of Avian Biology (in press).
- Lovund, J. 1989. Søholmen, fiskevær og fyrholme.
- Misund, I.F. 1986. Egg og dunvær i Nordland fylke.
- Moen, A. 1999. National Atlas of Norway: Vegetation. Norwegian Mapping Authority, Hønefoss, 200 pp.
- Munch, G.S. 1966. Gårdshauger i Nord-Norge. Viking. Oslo.
- Myrland, R. 1972. Velfjord. Beskrivelse til det berggrunnsgeologiske gradteigskart I 18 1:100 000, 274. Norges geologiske undersøkelse, 30 pp.
- Nansen, F. 1922. The strandflat and isostasy. Videnskabs Selskabets Skrifter, Matematisk-Naturvidenskapelig Klasse 2, 1-313.
- Nedkvitne, A. 1983. Utenrikshandelen fra det vestafjeldske Norge 1100-1600. Bergen.
- Nilsson, L. & Follestad, A. 2000. The Nordic neckbanding programme. Greylag Goose Workshop 2000, Goose 2000 Conference, Wetlands International, den Haan, Belgium, 8-11 January 2000.
- Nilsson, L., Andersson, Å., Follestad, A. & Persson, H. 1993. Observations of neck-banded Nordic Greylag Geese (*Anser anser*) during 1989/1990. Seevögel 14, 14-17.
- Nilsson, L., Follestad, A., Koffijberg, K., Kuijken, E., Madsen, J., Mooij, J.B., Mouronval, H., Persson, H., Schricke, V. & Voslamber, B. 1999. Greylag Goose Anser anser: Northwest Europe. In: Madsen, J., Cracknell, G. & Fox, A.D. (eds.). Goose populations of the western palearctic. A review of status and distribution. Wetlands International Publ. No. 48, Wetlands International, Wageningen, The Netherlands. National Environmental Research Institute, Rønde, Denmark. 344 pp.

- Norderhaug, A., Austad, I., Hauge, L. & Kvamme, M. (eds.) 1999. Skjøtselsboka for kulturlandskap og gamle norske kulturmarker. Landbruksforlaget.
- Norderhaug, K.M., Christie, H. & Rinde, E. Colonisation of epiphyte and holdfast fauna to kelp imitations; a study of mobility patterns. (submitted Mar. Biol.)
- Nordgulen, Ø. 1992. A summary of the petrography and geochemistry of the Bindal Batholith. Trondheim, Norges geologiske undersøkelse Report 92.111, 103 pp.
- Nordgulen, Ø. 2000. Structural evolution of the Helgeland Nappe Complex, central Norwegian Caledonides. Geonytt 27, 127-128.
- Nordgulen, Ø. & Schouenborg, B. 1990. The Caledonian Heilhornet pluton, north-central Norway: geological setting, radiometric age and implications for the Scandinavian Caledonides. Journal of the Geological Society, London 147, 439-450.
- Nordgulen, Ø. & Sundvoll, B. 1992. Strontium isotope composition of the Bindal Batholith, Central Norwegian Caledonides. Norges geologiske undersøkelse Bulletin 423, 19-39.
- Nordgulen, Ø., Bickford, M., Nissen, A. & Wortman, G. 1993. U-Pb zircon ages from the Bindal Batholith, and the tectonic history of the Helgeland Nappe Complex, Scandinavian Caledonides. Journal of the Geological Society, London 150, 771-783.
- Nordic Greylag Goose Working Group, 1988. Noordeuropese Grauwe Ganzen Anser anser in Nederland. Limosa 61, 67-71 (In Dutch with English summary).
- Norges landbruksøk. Inst. 1979. Jordbruk og fiske i Vega. Kombinasjonsformer.
- Norman, J.M. 1883. Yderligere bidrag til kundskapen om karplanternes udbredning i det nordenfjeldske Norge søndenfor polarkredsen. Arch. Math. Naturv. 8, 1.
- Nyheim, G. 1997. Jordbrukshistorikk. Sør-Helgeland etter 1950-åra.
- Næss, I. (ed.) 1999a. Vega gjennom 10.000 år. Vega kommune.
- Næss, I. 1999b. Med ea som husdyr. Bodø. 22 pp.
- Ogilvie, M. & Owen, M. 1984. Some results from the ringing of Barnacle geese *Branta leucopsis* in Svalbard and Britain. Nor. Polarinst. Skr. 181, 49-55.
- Owen, M. (ed.). 1987. Barnacle goose project. 1986 report. The Wildfowl Trust. 88 pp.
- Pedersen, R.-B., Nordgulen, Ø., Barnes, C.G., Prestvik, T. & Barnes, M. 1999. U-Pb dates from dioritic and granitic rocks in Velfjord, north-central Norway. Geonytt 26, 81.
- Pettersen, K. 1982. Steinalder på Vega. En introduksjon og et analyseforsøk. Rapport, Arkeologisk serie 1982:9. DKNVS Museet. Trondheim.
- Pettersen, K. 1983. En steinalder-meny. Årbok for Helgeland 1983. Mosjøen.
- Pettersen, K. 1985. Yngre fangst-steinalder. Pp. 61-126 in: Pettersen, K. & Wik, B. (eds.). Helgeland Historie 1. Helgeland Historielag, Mosjøen.
- Prop, J. & Black, J.M. 1998. Food intake, body reserves and reproductive success of barnacle geese *Branta leucopsis* staging in different habitats. Norsk Polarinst. Skr. 200, 175-193.
- Prop, J., Black, J.M. & Shimmings, P. (in prep.). Fitness consequences of the timing of migration in barnacle geese. To be submitted to Oikos.
- Prop, J., Black, J.M., Shimmings, P. & Owen, M. 1998. The spring range of Barnacle geese *Branta leucopsis* in relation to changes in land management and climate. Biological Conservation 86, 339-346.
- Ramfjord, H. 1982. On the late Weichselian and Flandrian shoreline displacement in Nærøy, Nord-Trøndelag, Norway. Norsk Geol. Tidsskr. 62, 191-205.
- Rekstad, J. 1915. Helgelands ytre kystrand. Norges geologiske undersøkelse 75, 53 pp.
- Rekstad, J. 1917. Vega. Beskrivelse til det geologiske generalkart. Norges geologiske undersøkelse 80, 85 pp.
- Rekstad, J. & Vogt, J.H.L. 1900. Søndre Helgelands kvartærgeologi. Norges geologiske undersøkelse 29, 62-112.
- Rinde, E., Bjørge, A., Eggereide, A. & Tufteland, G. 1998. Kystøkologi, den ressursrike norskekysten. Universitetsforlaget, Oslo. 215 pp.

Roberts, D. 1988. The terrane concept and the Scandinavian Caledonides: a synthesis. Norges geologiske undersøkelse Bulletin 413, 93-99.

Roksvaag, H.M. & Ronland, A. 1994. Skjærvær, Vega kulturkontors historieskrifter.

Sandnes, J. 1973. Norsk busetningshistorie, noen synspunkter på lokalisering og lokaliseringsfaktorer i førindustriell tid. Heimen 1973, XVI.

- Selvik, S.F. 1985. Pollenanalytiske undersøkelser på Vega 1983-1984. Univ. i Trondheim. Unpubl. report.
- Semmingsen, I, 1950: Veien mot vest. Vol. 2. Utvandringen fra Norge til Amerika 1865-1915. Aschehoug, Oslo. 590 pp.
- Shimmings, P. 1992. Barnacle Goose. In: Goose News Newsletter of the Wildfowl & Wetlands Trust Guard A Goose Scheme. January 1992. No. 4.
- Shimmings, P. 1993a. Barnacle Goose. In: Goose News Newsletter of the Wildfowl & Wetlands Trust Guard A Goose Scheme. July 1993. No. 7.
- Shimmings, P. 1993b. Report on observations of Barnacle geese (*Branta leucopsis*) on Tenna/Herøy (Helgeland, Norway) in May 1993. The Wildfowl & Wetlands Trust, internal report. 10 pp.
- Shimmings, P. 1993c. Report on the occurrence of Barnacle geese *Branta leucopsis* on Tenna/Herøy (Helgeland, Norway) in May 1993. WWT Slimbridge. 10 pp.
- Shimmings, P. 1994a. Observations of Barnacle geese *Branta leucopsis* in Helgeland in May 1994. WWT Slimbridge. 11 pp.
- Shimmings, P. 1994b. Observations of Barnacle geese *Branta leucopsis* in Helgeland in May 1994. Fylkesmannen i Nordland, miljøvernavdelingen. 4 pp.
- Shimmings, P. 1996. Observations of Barnacle geese in Helgeland during May 1996. (Observasjoner av kvitkinngås på Helgeland i mai 1996). Fylkesmannen i Nordland, miljøvernavdelingen. 8 pp.
- Shimmings, P. 1998. Kvitkinngås ved rasteplasser langs norskekysten forandringer i områdebruk medfører konflikt med jordbruksinteresser. Vår Fuglefauna 21, 11-15. (Changes in the use of spring staging areas by Barnacle geese and the effect of increased use of agricultural areas (In Norwegian).
- Shimmings, P. 2001. Hvitkinngås kystens gås. (Barnacle goose the coastal goose In Norwegian). Ranas Dyreliv 22, 14-18.
- Shimmings, P. 2002. Hvitkinngås bestandsutvikling, trekkmønster og rasteplasser hos Svalbards-bestanden. Ottar 239, 17-21.
- Shimmings, P. & Hatten, L. 1997. Observations of Barnacle geese in Helgeland during May 1997. (Observasjoner av kvitkinngås på Helgeland i mai 1997). Report to Fylkesmannen i Nordland, miljøvernavdelingen. 9 pp.
- Shimmings, P. & Hatten, L. 1998. Observations of Barnacle geese *Branta leucopsis* in Helgeland, Norway, during May 1998, with emphasis on numbers and distribution in the Tenna, Sør-Herøy and Nord-Herøy area. (Observasjoner av kvitkinngås *Branta leucopsis* på Helgeland i mai 1998, hovedsakelig i områdene Tenna, Sør-Herøy og Nord-Herøy). Report to Fylkesmannen i Nordland, miljøvernavdelingen. 37 pp.
- Shimmings, P. & Isaksen, K. 1999. Results of fieldwork on Barnacle geese *Branta leucopsis* in the Helgeland region of Norway during spring 1999. Report to Fylkesmannen i Nordland, miljøvernavd. 59 pp.
- Shimmings, P. & Isaksen, K. 2000. Results of fieldwork on Barnacle geese *Branta leucopsis* in the Helgeland region of Norway during spring 2000 (with selected notes from other areas). Report to Fylkesmannen i Nordland, miljøvernavdelingen. 33 pp.
- Shimmings, P. & Isaksen, K. 2001. Results of fieldwork on spring-staging Barnacle geese *Branta leucopsis* on the Norwegian coast spring 2001. Report to Fylkesmannen i Nordland, miljøvernavdelingen. 42 pp.

- Sickel, H. 1997a. Kystkulturlandskap i forfall vegetasjonsdynamikk i et nedlagt øyvær på Helgelandskysten. Univ. i Oslo. Botanisk Hage og Museum. Hovedfagsoppgave, unpubl.
- Sickel, H. 1997b. Kystkulturlandskap i forfall vegetasjonsdynamikk i et nedlagt øyvær på Helgelandskysten. – Cand. scient.-oppgave i botanikk. Botanisk Hage & Museum, Univ. i Oslo.
- Sjøtun, K. & Fredriksen, S. 1995. Growth allocation in *Laminaria hyperborea* (Laminariales, Phaeophyceae) in relation to age and wave exposure. Marine Ecology Progress Series 126, 213-222.
- Sjøtun, K., Fredriksen, S., Rueness, J. & Lein, T.E. 1995. Ecological studies of the kelp *Laminaria hyperborea* (Gunnerus) Foslie in Norway. Pp. 525-536 in: Skjoldal, H.R., Hopkins C., Erikstad, K.E. & Leinaas, H.P. (eds.). Ecology of fjords and coastal waters. Elsevier Science B.V.
- Sjøtun, K., Fredriksen, S., Lein, T.E., Rueness, J. & Sivertsen, K. 1993. Population studies of *Laminaria hyperborea* from its northern range of distribution in Norway. Hydrobiologia 260/261, 215-221.
- Skadsheim, A., Christie, H. & Leinaas, H.P. 1995. Population reduction of *Strongylocentrotus droebachiensis* (Echinodermata) in Norway and possible relationships to its endoparasite *Echinomermella matsi* (Nematoda). Mar. Ecol. Prog. Ser. 119, 199-209.
- Skadsheim, A., Rinde, E. & Christie, H. 1993. Forekomst og endringer i kråkebolletetthet, kråkebolleparasitt og gjenvekst av tareskog langs norskekysten fra Trøndelag til Troms. NINA Oppdragsmelding 258, 1-39.
- Statens kartverk Sjøkartverket, 1998. Den norske los. 5. Farvannsbeskrivelse Rørvik -Lødingen og Andenes. Statens kartverk Sjøkartverket. Stavanger. ISBN 82-90653-13-1.
- Strann, K.-B., Follestad, A. & Frafjord, K. 2002. Gjess i Nord-Norge. Ottar 239, 3-11.
- Suul, J. 1975. Ornitologiske undersøkelser i Vega kommune, Nordland. K. Norske Vidensk. Selsk. Mus. Rapp. Zool. Ser. 1975-11, 1-54.
- Suul, J. 1977. Egg- og dunvær på Trøndelagskysten. Årbok for Trøndelag: 105-115.
- Suul, J. 1987. Ærfuglens plass i norsk kystkultur og historie. Vår Fuglefauna (10) 3, 203-210.
- Suul, J. 1993. Ærfuglens plass i nordnorsk kystkultur og historie. Ottar 1993, 189, 14-21.
- Sørensen, E. in prep. Vega 1726 II. Kvartærgeologisk kart M 1:50 000. (Quaternary geological map, scale 1:50 000). Norges geologiske undersøkelse.
- Thorsnes, T. & Løseth, H. 1991. Tectonostratigraphy in the Velfjord-Tosen region, southwestern part of the Helgeland Nappe Complex, Central Norwegian Caledonides. Norges geologiske undersøkelse Bulletin 421, 1-18.
- Trønnes, R. & Sundvoll, B. 1995. Isotopic composition, deposition ages and environments of Central Norwegian Caledonian marbles. Norges geologiske undersøkelse Bulletin 427, 44-48.
- Vea, J. 1988. Folkevekst og folkeflytting i Nordland, ca. 1865 1940. Bodø.
- Vogt, J.H.L. 1900. Søndre Helgelands morfologi. Norges geologiske undersøkelse 29, 1-61.
- Wik (Berglund), B. 1983. Tunanlegget på Tjøtta En økonomisk og demografisk miljøstudie. DKNVS Museet, Gunneria 44. Trondheim.
- Wik (Berglund), B. 1985. Jernalderen. Pp. 172-264 in: Pettersen, K. & Wik, B. (eds.). Helgeland Historie I. Helgeland Historielag, Mosjøen.
- Wika, H.O. 1961. Vega Bygdebok, I.
- Wika, H.O. 1968. Vega Bygdebok, II.
- Wika, H.O. 1977. Vega Bygdebok, III.
- Wold, H.A. 1985. Utvær, bilder fra et nordnorsk hverdagslandskap.
- Ytreberg, N.A. 1941. Nordlandske handelssteder. F. Bruns bokhandels forlag, Trondheim.
- Yoshinobu, A.S., Barnes, C.G., Nordgulen, Ø., Prestvik, T., Fanning, M. & Pedersen, R.-B. 2002. Ordovician magmatism, deformation, and exhumation in the Caledonides of central Norway: An orphan of the Taconic orogeny. Geology, in press.

7d. Addresses where inventory, records and archives are held

Riksarkivet (National Archives of Norway) PO Box 4013 Ullevål stadion, NO-0806 Oslo. E-mail: riksarkivet@riksarkivaren.dep.no **Statsarkivet i Bergen (Regional State Archives)** Årstadveien 22, NO-5009 Bergen. E-mail: statsarkivet.Bergen@Riksarkivaren.dep.no Statsarkivet i Trondheim (Regional State Archives) PO Box 2825 Elgesæter. NO-7432 Trondheim. E-mail: statsarkivet.trondheim@Riksarkivaren.dep.no Statsarkivet i Tromsø (Regional State Archives) NO-9293 Tromsø. E-mail: statsarkivet.tromso@Riksarkivaren.dep.no The Digital Archive a public service from the National Archives in Norway http://digitalarkivet.uib.no Statistisk sentralbyrå (Statistics Norway) PO Box 8131 Dep., NO-0030 Oslo. E-mail: ssb@ssb.no **Tromsø University Museum** University of Tromsø, NO-9037 Tromsø. E-mail: adm@imv.uit.no Norwegian University of Science and Technology Institute of Archaeology and Cultural History, Museum of Natural History and Archaeology NO-7491 Trondheim. E-mail: arkeologi@vm.ntnu.no NIKU (Foundation for Cultural Heritage Research) PO Box 736 Sentrum, NO-0105 Oslo. E-mail: niku@niku.no NINA (Foundation for Nature Research) Tungasletta 2, NO-7485 Trondheim. E-mail: firmapost@nina.no **Riksantikvaren (Directorate for Cultural Heritage)** Dronningensgt 13, PO Box 8196 Dep. NO-0034 Oslo. E-mail: riksantikvaren@ra.no **Direktoratet for naturforvaltning (Directorate for Nature Management)** Tungasletta 2, NO-7485 Trondheim. E-mail: postmottak@dirnat.no Fylkesmannen i Nordland (County Governor of Nordland) Molov. 10, NO-8002 Bodø. E-mail: postmottak@fm-no.stat.no Nordland Fylkeskommune (Nordland County Council) Fylkeshuset, NO-8048 Bodø. E-mail: Nordland.fylkeskommune@nfk.no Vega kommune (Vega Borough Council) NO-8981 Vega. E-mail: postkasse@vega.kommune.no

8 Signature on behalf of the State Party

Oslo 17th January 2003

Børge Brende Minister of the Environment Norway World Heritage Convention - Norwegian Nomination Vegaøyan – The Vega Archipelago 2003-01-17

The dossier has been prepared by the Directorate for Nature Management (DN) on behalf of the Ministry of the Environment Editors: Jon Suul and Gaute Sønstebø, DN English translation: Richard Binns, Trondheim Layout: Guri Jermstad, Trondheim



7485 Trondheim Phone: 73 58 05 00 Telefax: 73 58 05 01 www.dirnat.no