GEOPARK
VESTJYLLAND

ANNEX 5

GEOGRAPHICAL AND GEOLOGICAL SUMMARY

APPLICATION FOR GEOPARK WEST JUTLAND

TO BECOME A UNESCO GLOBAL GEOPARK

Application for Geopark West Jutland to become UNESCO Global Geopark 2016
ANNEX 5 Geographical and Geological Summary

United Nations Educational, Scientific and Cultural Organization

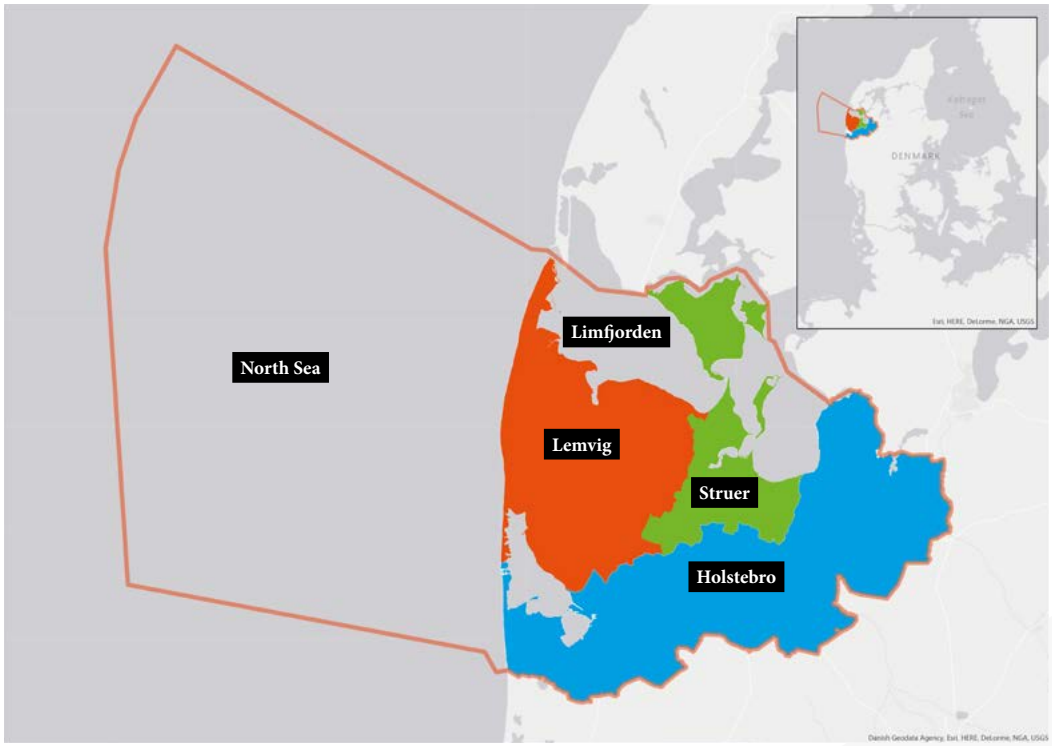
UNESCO Global Geoparks

Applicant UNESCO Global Geopark

Geopark West Jutland, Denmark

geographical and geological summary

Geopark West Jutland, Denmark



Geopark West Jutland

- Border
- Lemvig municipality
- Struer municipality
- Holstebro municipality

1 PHYSICAL AND HUMAN GEOGRAPHY

Geopark West Jutland is located in the Central Denmark Region and includes the three municipalities Lemvig, Struer and Holstebro, a part of the Limfjord and extends about 50 km offshore into the North Sea to also include part of the Jutland Reef.

The Geopark has a total area of 4,759 km^2. Of this, the land area makes up 1,560 km^2, marine areas in the Limfjord covers 425 km^2 and marine areas in the North Sea covers the remaining 2,775 km^2. In total Geopark West Jutland has 218 km coastline. 67% of the land area is used for agriculture and forests cover 13.8% of the area.

Major lagoons and lakes in the geopark are: Nissum Fjord (70 km^2), Ferring Sø (3.2 km^2), Kilen (3.34 km^2), Flyndersø (4.18 km^2) and Stubbergård Sø (1.5 km^2). A section of the river Storå, which is the second longest river in Denmark runs across the geopark from east to its outlet in Nissum Fjord to the west. To the east the geopark borders on the Karup River. The geopark area includes 13 Natura 2000-sites and 5 Nature and Wildlife Reserves.

The highest point is Bavnehøj near Lemvig at 89.5 m above sea level and the lowest point is 2 m below sea level at the bottom of the drained lake Vestersø northwest of Lemvig.

The population of Geopark West Jutland is 99,534 (2015). The biggest cities in Geopark West Jutland are Holstebro (34,873 inhabitants), Struer (10,261 inhabitants) and Lemvig (7,131 inhabitants). There are 29 other cities in the area which in size vary from 200 to 3,000 inhabitants.

Transport and trade together with Industry and raw materials are the dominating business sectors by number of jobs. Noteworthy is that the primary sector with forestry, agriculture and fisheries employs 7% - 14% of the work force which is much higher than the national average of 4% for this sector.

2 GEOLOGICAL FEATURES AND GEOLOGY OF INTERNATIONAL SIGNIFICANCE

During the Quaternary period of Earth history, enormous ice sheets sculpted the impressive ice age landscapes that form the core of Geopark West Jutland. These landscapes mark the final period when the Earth was in a deep freezer and when the Scandinavian Ice Sheet extended from the mountains of Norway down to Denmark.

In addition to the ice age landscapes there is a series of other landforms that developed after the end of the ice age by rivers and coastal processes, as well as by the powerful westerly winds that characterize the west coast of Denmark. There are also remains of older geological deposits from the Tertiary and the Quaternary in some of the cliffs.

The unique glacial landscape in western Jutland was mapped over 100 years ago by the geologist N.V. Ussing who identified, amongst other features, the Main Stationary Line as a marked boundary in the landscape between a hilly glacial landscape and flat outwash plains. This landscape developed as a result of repeated ice ages that each contributed to its formation. It was however, during the last ice age – the Main Advance that took place 23.000 - 21.000 years ago when the ice reached its maximum extent – that most of the landscape in the geopark was formed.

The proposed UNESCO Global Geopark West Jutland holds 48 geosites which include:

- 1 designated geosite of international importance: the Bovbjerg Cliff
- 26 geosites which are situated fully or partly in 8 National areas of Geological Interest
- 12 geosites which are situated fully or partly in 5 of the National Coastal Landscapes

Additionally, the geopark has also described 48 non-geological sites of natural, cultural and intangible heritage interest.

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