

DENMARK

By Flemming Jacobsen

Mineral production in Denmark includes the extraction of sand, gravel, stone, clay, chalk, limestone, peat, salt, and offshore oil and gas. Part of the sand, gravel and stone exploited is extracted from the seabed by dredging.

The total production of raw materials by volume, excluding oil, gas and salt, amounted to 33 million m³ in 2001 or 6.2 m³ per inhabitant. Production of oil was 16.9 Mt and output of natural gas amounted to 8.2 billion m³.

Mineral Production

The production of land-based minerals reached a nadir in 1993 of 24 million m³, since when there has been a steady increase to a peak level of 35 million m³ in 1999. Last year, output was 33 million m³. Over the same period, seabed extraction has fluctuated, ranging from 4.3 million m³ in 1993 to a high of 12.8 million m³ in 1999. Last year, it amounted to 5.4 million m³. The variation in output reflects, in part, the demands of the construction industry, with the periods of highest demand with the requirement for raw materials to build the tunnel and bridge link between Denmark and Sweden (1997), and a major harbour project (1999).

Around 80% of industrial mineral production comprises aggregates and stone, with chalk and limestone accounting for about 10%. Most of the sand, gravel and stone, about 65%, is used for roads and construction, with a further 30% for concrete and mortar. In

2001, production of chalk and limestone totalled 3.5 million m³. Clay production amounted to 720,000 m³, and output of expanded clay for insulating materials and light expanded aggregates was 234,000 m³. Production of moler (a diatomaceous earth used for insulating purposes and granulates) amounted to 231,000 m³. The production of quartz sand has increased markedly in recent years, rising from 279,000 m³ in 1999 to 488,000 m³ in 2001. Production of peat amounted to 287,000 m³.

On behalf of the Dansk Undergrunds Consortium (DUC), Maersk Olie and Gas A/S produces oil and gas from offshore fields in the North Sea. In 1989, production was from only five fields but by last year the number of offshore fields had risen to 16. Oil production has risen accordingly, from 6.0 Mt in 1990 to 16.9 Mt last year, although this was down from the peak output of 17.7 Mt achieved in 2000. Similarly, output of natural gas has risen from 3.1 billion m³ in 1990 8.2 billion m³ in 2001.

The importance of minerals to the Danish economy is not inconsiderable. The current tax for non-energy raw materials is DK5/m³ and last year this brought in government revenues of DK165 million from land-based minerals and DK26.8 million from seabed resources. The value of Danish oil and gas production is linked to the international dollar-denominated market prices, and tax and royalties derived from the oil and gas sector last year amounted to DK10.2 billion.