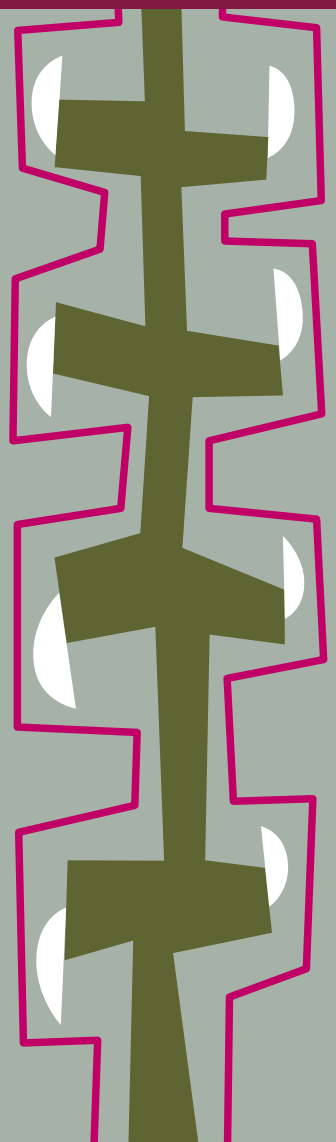


7



Petroleum resources

Discovered and undiscovered resources on the NCS are expected to total roughly 13.8 bn scm oe (with an uncertainty range from 11-17.5 bn scm oe). This represents an increase of more than 400 mill scm oe from 1999. Three bn scm oe has been produced to date, corresponding to 22 per cent of total resources.

Remaining resources total 10.8 bn scm oe, of which proven reserves total 6.1 bn scm oe. In addition, possible future measures for improving oil recovery from fields are expected to add just under one bn scm oe.

A total of 6.9 bn scm oe has been found in the North Sea. Of this, 2.8 bn scm oe has been produced and remaining reserves amount to 2.4 bn scm oe. Oil accounts for just over half of this. Remaining reserves in the North Sea rose from 1999 despite production for the year. This was largely because a number of new fields were approved for development, with discovered resources declining by a corresponding amount. No change were made during the year to the potential for undiscovered resources in the North Sea.

Discoveries in the Norwegian Sea total 1.9 bn scm oe, of which 176 mill scm oe has so far been produced. Remaining reserves total some 600 mill scm oe, with oil accounting for about 48 per cent. Several new finds during the year produced an increase in discovered resources. The potential for undiscovered resources in these waters was upgraded during the year, and represents the most important reason for the increase in total offshore resources from 1999.

Discoveries in the Barents Sea total 300 mill scm oe. Finds during 2000 in this part of the NCS contributed little to resources, but are nevertheless important for further exploration and production there.

Table 7.1 presents remaining discovered resources and reserves on the NCS. These figures are

supplemented by the future potential for improved oil recovery, put at about one bn scm oe. This has not been broken down for the three regions.

Undiscovered petroleum resources on the NCS are put at about 3.7 bn scm oe, with an uncertainty range of 1.5-7 bn scm oe. Thirty-one per cent of this total is thought to lie in the North Sea, 43 per cent in the Norwegian Sea and 26 per cent in the Barents Sea.

Cumulative output since petroleum production began off Norway in 1971 comes to three bn scm oe. Of producing fields at 31 December 2000, 40 were in the North Sea and five in the Norwegian Sea. In addition, six fields have had development plans approved but are not yet on stream.

Remaining discovered resources increased by a total of 186 mill scm oe in 2000. Gas resources were up by 160 bn scm, while oil resources rose by 26 mill scm.

Overall production in 2000 amounted to 244 mill scm oe. Nine discoveries were made during the year, with total resources in the order of 30-60 mill scm of oil and 80-170 bn scm of gas.

Resources in fields increased by roughly 150 mill scm oe, partly because several projects which could improve recovery from the chalk reservoirs have now reached the planning stage and been registered in the resource accounts. On the other hand, this involves some reduction in the remaining potential for improved recovery.

Discovered resources declined by about 50 mill scm oe despite new finds. One of the main reason for this reduction is that Tambar, Kvitebjørn, Grane and Ringhorne have been transferred to reserves after their plans for development and operation were approved.

Adjustments to estimates for older fields and finds total about 100 mill scm oe, and the upgrading of undiscovered resources, including discoveries for the year, amounts to about 100 mill scm oe. These changes are shown in table 7.1.

Table 7.1 Total recoverable potential and remaining proven reserves and resources at 1 Jan 2000*
(Source: Norwegian Petroleum Directorate)

Total recoverable potential	2000				Change from 1999		
	Oil mill scm	Gas bn scm	NGL/cond mill scm	Total oe mill scm	Liquids** mill scm oe	Gas bn scm	Total oe mill scm
Produced	2 187	677	141	3 005	194	50	244
Remaining reserves	1 564	1 259	243	3 066	76	14	90
Resources in fields	262	937	80	1 279	117	33	150
Resources in discoveries	266	1 258	248	1 772	(167)	113	(54)
Total remaining proven reserves and resources	2 092	3 454	571	6 117	26	160	186
Resources from future IOR measures	425	500	-	925	(75)	0	(75)
Undiscovered resources	1 350	2 400	-	3 750	12	82	94
Total recoverable potential	6 054	7 031	712	13 797	157	292	449

North Sea							
Produced	2 014	674	141	2 829	149	49	198
Remaining reserves	1 264	1 035	140	2 439	120	20	140
Resources in fields	226	851	48	1 125	88	(7)	81
Resources in discoveries	168	247	61	476	(170)	(55)	(225)
Total remaining proven reserves and resources	1 658	2 133	249	4 040	38	(42)	(4)
Undiscovered resources	622	548		1 170	0	0	0

Norwegian Sea							
Produced	173	3	0	176	45	1	46
Remaining reserves	300	225	103	628	(43)	(6)	(49)
Resources in fields	36	86	32	154	29	41	70
Resources in discoveries	65	783	155	1 003	(4)	175	171
Total remaining proven reserves and resources	401	1 094	290	1 785	(18)	210	192
Undiscovered resources	405	1 189		1 594	10	84	94

Barents Sea							
Produced	0	0	0	0	0	0	0
Remaining reserves	0	0	0	0	0	0	0
Resources in fields	0	0	0	0	0	0	0
Resources in discoveries	33	228	31	292	7	(7)	0
Total remaining proven reserves and resources	33	228	31	292	7	(7)	0
Undiscovered resources	323	663		986	0	0	0

* Resources from future IOR measures are registered at the aggregate level, and no division has been made between the various regions.

** Liquids include oil, NGL and condensate.

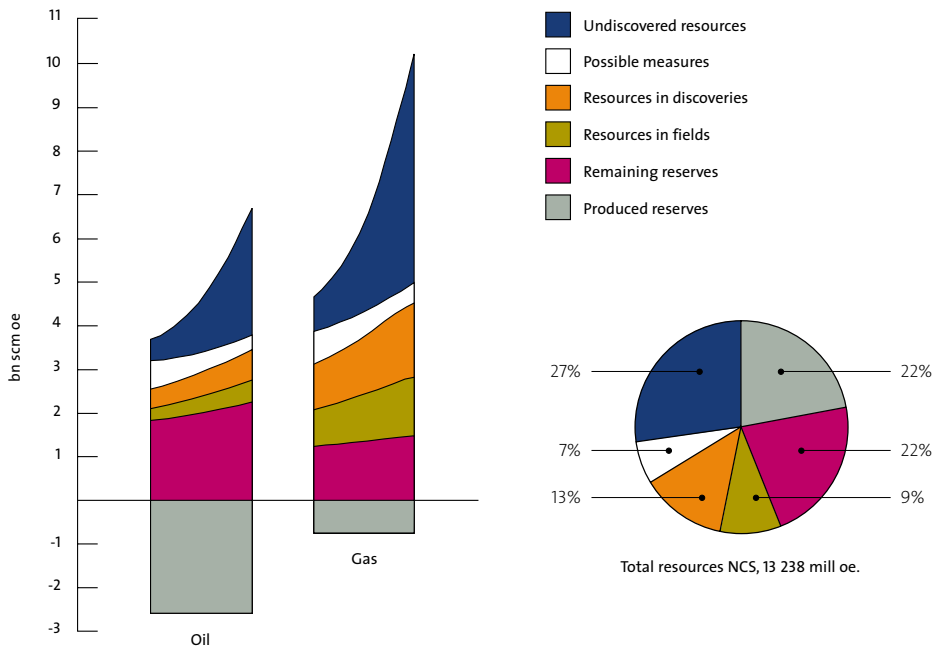


Figure 7.1 Total resource estimate. (Source: Norwegian Petroleum Directorate)