

Facts about Fisheries and Aquaculture 2009



NORWEGIAN MINISTRY OF
FISHERIES AND COASTAL AFFAIRS



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Norwegian seafood production – consumption and exports

The Norwegian fishing and aquaculture industry currently supplies seafood to consumers in more than 150 countries worldwide. This is healthy food, produced in a clean ocean environment. The fishing and aquaculture industry is one of Norway's foremost export industries and is vital for settlement and activities along the Norwegian coast. It provides employment in fishing, aquaculture and the fishing industry, and has widespread effects on trade and industry as well as on research and development.

Norway controls some of the world's most productive marine environments, with excellent conditions for conducting environmentally friendly aquaculture. Aquaculture production could also be increased significantly, and on the basis of many more species than those farmed today. Norway places great emphasis on gaining knowledge of fish resources, the ocean environment and how the interplay between species functions. Simultaneously there is comprehensive regulation of fishing resources to ensure a sustainable management.

Consumers must have confidence in Norwegian seafood. Food safety throughout the entire production chain is a primary focus, and the levels of foreign substances are documented. The consumer must be able to know with certainty that Norwegian seafood is safe and healthy.

Norwegian consumption of seafood 2005-2008

per person, kilos

| | 2005 | 2006 | 2007 | 2008* |
|----------------------------|-------------|-------------|-----------|-----------|
| Purchased | 17,6 | 17,9 | 17,5 | 17,1 |
| Caught by consumer/gift | 1,6 | 1,3 | 1,3 | 1,7 |
| Institutional household ** | 3,6 | 3,7 | 4,2 | 4,3 |
| Total consumption | 22,8 | 22,9 | 23 | 23 |

* The figures are preliminary

GfK-Norge/Sissel Flesland Markedsinformasjoner AS

** Hotels, restaurants etc.

the Norwegian Seafood Export Council

Norwegian consumption of seafood purchased 2002-2008

per person, kilos

| Species | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|-----------------|------|------|------|------|------|------|------|
| Cod | 2,64 | 2,73 | 2,46 | 2,59 | 2,71 | 2,63 | 2,79 |
| Atlantic Salmon | 1,67 | 1,71 | 1,79 | 1,93 | 1,88 | 2,06 | 2,17 |
| Shrimp | 1,89 | 2,13 | 2,23 | 2,20 | 2,00 | 2,00 | 1,74 |
| Mackerel | 1,02 | 1,10 | 1,09 | 1,14 | 1,06 | 1,11 | 1,15 |
| Saithe | 1,18 | 1,30 | 1,50 | 1,23 | 1,39 | 1,20 | 1,09 |
| Herring | 1,14 | 1,18 | 1,19 | 1,11 | 1,10 | 1,03 | 1,02 |
| Rainbow Trout | 0,76 | 0,71 | 0,71 | 0,68 | 0,70 | 0,76 | 0,82 |

GfK-Norge/the Norwegian Seafood Export Council

Seafood production 2007

tonnes

| | Catches | Fish-farming | Total |
|-----------|------------|--------------|-------------|
| Worldwide | 90 076 951 | 50 076 044 | 140 152 995 |
| Norway | 2 340 000 | 828 000 | 3 168 000 |

Exclusive of aquatic plants

FAO, the Norwegian Seafood Export Council

Seafood exports 2006

tonnes, 1000 USD

| | Quantity | Value |
|-----------|------------|------------|
| Worldwide | 31 322 077 | 86 370 655 |
| Norway | 1 868 625 | 5 530 335 |

Exclusive of aquatic plants

FAO, the Norwegian Seafood Export Council

Largest seafood production nations

– catches and fish-farming 2006

mill tonnes

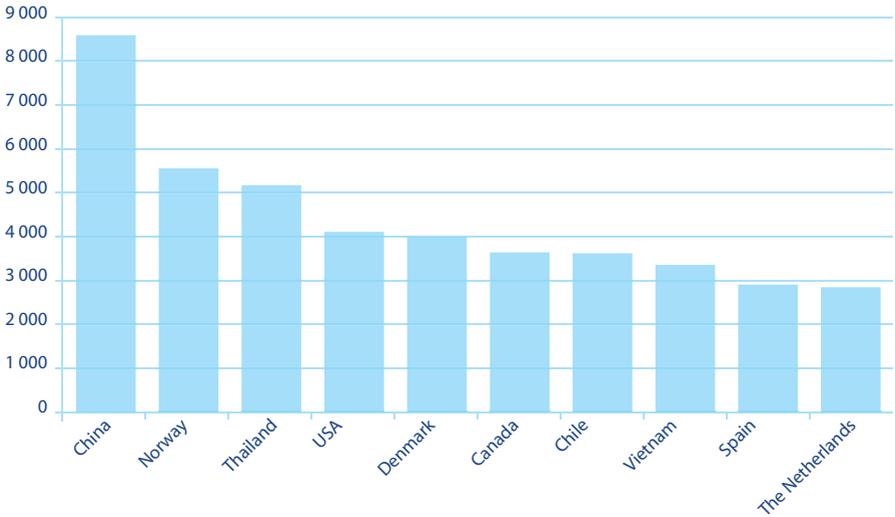
| | Fangst | Oppdrett | Total |
|------------------------|------------|------------|------------|
| China | 17 092 146 | 34 429 157 | 51 521 303 |
| Peru | 7 017 491 | 28 393 | 7 045 884 |
| India | 3 855 467 | 3 123 135 | 6 978 602 |
| Indonesia | 4 759 320 | 1 309 247 | 6 068 567 |
| USA | 4 860 011 | 465 061 | 5 325 072 |
| Chile | 4 168 461 | 802 410 | 4 970 871 |
| Japan | 4 188 611 | 733 891 | 4 922 502 |
| Thailand | 2 776 295 | 1 385 801 | 4 162 096 |
| Vietnam | 1 959 900 | 1 657 727 | 3 617 627 |
| The Russian Federation | 3 284 147 | 105 525 | 3 389 672 |
| Norway | 2 255 513 | 708 780 | 2 964 293 |
| Philippines | 2 321 722 | 623 369 | 2 945 091 |
| Myanmar (Burma) | 2 006 790 | 574 990 | 2 581 780 |
| Bangladesh | 1 436 496 | 892 049 | 2 328 545 |
| South Korea | 1 749 929 | 513 568 | 2 263 497 |
| Malaysia | 1 300 415 | 168 317 | 1 468 732 |
| Mexico | 1 300 183 | 158 642 | 1 458 825 |
| Iceland | 1 327 063 | 8 241 | 1 335 304 |

Exclusive of aquatic plants

FAO, the Norwegian Seafood Export Council

Largest seafood export nations 2006

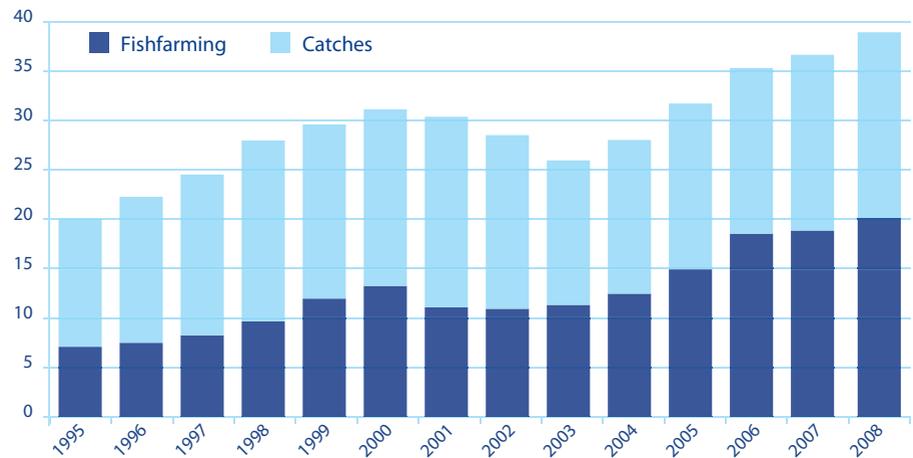
mill NOK



FAO, the Norwegian Seafood Export Council

Norwegian seafood exports 1995-2008

1000 mill NOK



Statistics Norway, the Norwegian Seafood Export Council

Main export markets for Norwegian seafood 2008

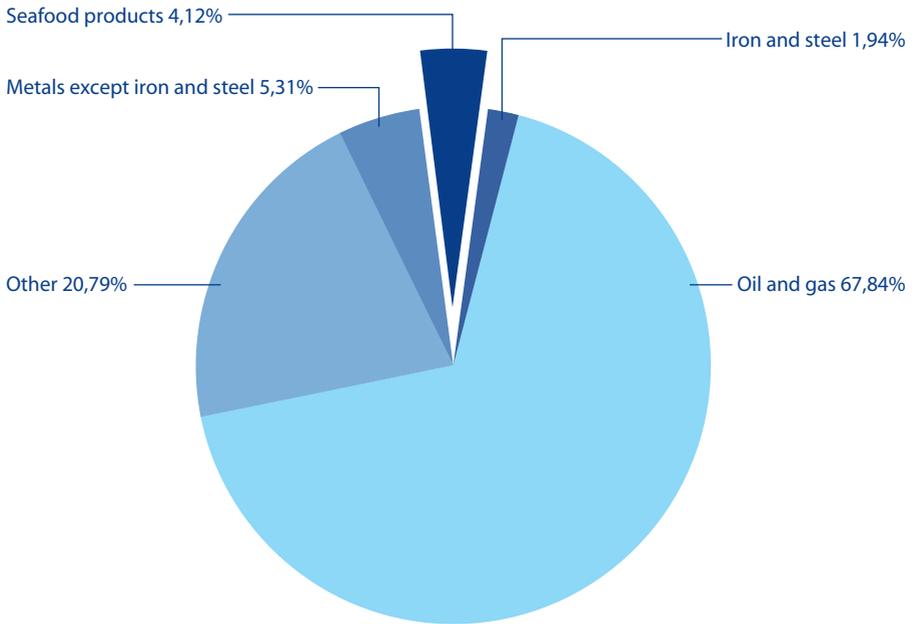
1000 NOK, tonnes

| Country | Value | Quantity |
|------------------------|-----------|----------|
| France | 4 048 215 | 136 124 |
| The Russian Federation | 4 047 895 | 362 383 |
| Denmark | 2 861 138 | 255 984 |
| Poland | 2 449 582 | 124 813 |
| Great Britain | 2 237 297 | 128 061 |
| Japan | 2 216 186 | 111 050 |
| Portugal | 2 050 501 | 43 774 |
| Sweden | 1 728 062 | 61 241 |
| Spain | 1 430 874 | 45 612 |
| The Netherlands | 1 416 933 | 76 963 |
| Italy | 1 339 810 | 31 268 |
| Germany | 1 312 879 | 62 063 |
| Ukraine | 1 292 977 | 156 806 |
| China | 1 129 231 | 81 829 |
| Brazil | 1 039 477 | 31 965 |
| USA | 931 789 | 25 558 |
| Finland | 734 148 | 40 238 |
| Nigeria | 698 986 | 146 246 |
| Hong Kong | 361 005 | 12 424 |
| Lithuania | 338 893 | 33 460 |

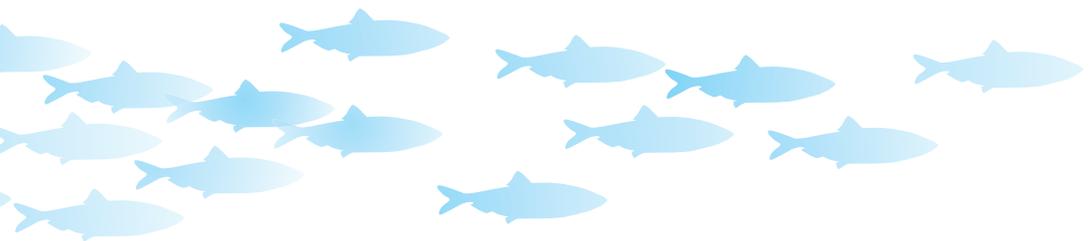
Statistics Norway, the Norwegian Seafood Export Council



Fisheries and aquaculture's share of Norwegian exports 2008



Statistics Norway, the Norwegian Seafood Export Council



Fisheries and catches

Fishing has always been the basis for settlement and employment along the Norwegian coast. The fisherman of today is far more efficient than a few decades ago. Technological facilities and improved fishing methods and vessels mean that today's fishermen catch much larger quantities per man. Strict regulation with set quotas and control mechanisms is therefore necessary for sustainable development that will ensure that future generations can also harvest the wealth of the sea.

Development has moved in the direction of fewer and more efficient fishing boats. At the same time, Norway has a composite fishing fleet with respect to the size and type of fishing equipment – ocean fishing vessels and a large number of larger and smaller coastal vessels. The quality of the products and the markets where these are sold are emphasised concerns throughout the entire chain, from the moment the fish is caught at sea to when it reaches consumers all over the world.

Sustainable resource management is fundamental to the Norwegian fishing policy. Simultaneously, fisheries and fishing will help to safeguard settlements and create new activity along the coast.



Number of fishermen 1940-2008

| Year | Sole or main occupation | Secondary occupation | Total |
|------|-------------------------|----------------------|---------|
| 1940 | 80 387 | 41 574 | 121 961 |
| 1950 | 68 149 | 30 175 | 98 324 |
| 1960 | 49 720 | 20 655 | 70 375 |
| 1970 | 31 884 | 11 134 | 43 018 |
| 1980 | 25 140 | 9 649 | 34 789 |
| 1990 | 20 475 | 7 043 | 27 517 |
| 1995 | 17 160 | 6 491 | 23 651 |
| 2000 | 14 264 | 5 811 | 20 075 |
| 2001 | 13 676 | 5 221 | 18 896 |
| 2002 | 13 844 | 4 651 | 18 495 |
| 2003 | 13 177 | 3 966 | 17 143 |
| 2004 | 12 553 | 2 916 | 15 469 |
| 2005 | 11 635 | 2 933 | 14 568 |
| 2006 | 10 889 | 2 864 | 13 753 |
| 2007 | 10 657 | 2 679 | 13 336 |
| 2008 | 10 307 | 2 597 | 12 904 |

The Directorate of Fisheries per February 12th 2009

Fishing vessels operated all-year-round 2008

by county, length

| County | 8-9,9 m | 10-14,9 m | 15-20,9 m | 21-27,9 m | 28 m and over | Total |
|------------------------|------------|------------|------------|------------|---------------|--------------|
| Finnmark | 156 | 79 | 19 | 15 | 16 | 285 |
| Troms | 112 | 71 | 17 | 12 | 12 | 224 |
| Nordland | 248 | 152 | 61 | 42 | 24 | 527 |
| Nord- og Sør-Trøndelag | 69 | 37 | 4 | 3 | 3 | 116 |
| Møre og Romsdal | 57 | 50 | 5 | 23 | 65 | 200 |
| Sogn og Fjordane | 17 | 12 | 5 | 19 | 20 | 73 |
| Hordaland | 25 | 8 | 4 | 8 | 42 | 87 |
| Rogaland | 21 | 19 | 4 | 12 | 15 | 71 |
| Other counties | 59 | 45 | 15 | 12 | 2 | 133 |
| Total | 764 | 473 | 134 | 146 | 199 | 1 716 |

The Directorate of Fisheries

Number of fishermen 2008

by county

| County | Sum | Sole or main occupation | Secondary occupation |
|------------------|---------------|-------------------------|----------------------|
| Finnmark | 1 252 | 988 | 264 |
| Troms | 2 065 | 1 500 | 565 |
| Nordland | 3 103 | 2 572 | 531 |
| Nord-Trøndelag | 323 | 236 | 87 |
| Sør-Trøndelag | 526 | 397 | 129 |
| Møre og Romsdal | 2 559 | 2 213 | 346 |
| Sogn og Fjordane | 740 | 584 | 156 |
| Hordaland | 945 | 836 | 109 |
| Rogaland | 531 | 373 | 158 |
| Vest-Agder | 308 | 205 | 103 |
| Aust-Agder | 116 | 78 | 38 |
| Telemark | 69 | 46 | 23 |
| Vestfold | 89 | 65 | 24 |
| Buskerud | 18 | 15 | 3 |
| Oppland | 15 | 12 | 3 |
| Hedmark | 19 | 18 | 1 |
| Akershus | 28 | 23 | 5 |
| Oslo | 50 | 41 | 9 |
| Østfold | 148 | 105 | 43 |
| Total | 12 904 | 10 307 | 2 597 |

The Directorate of Fisheries



Registered vessels 2002-2008

by county

| County | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|------------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Finnmark | 1 621 | 1 368 | 1 156 | 1 106 | 1 048 | 1 016 | 973 |
| Troms | 1 845 | 1 706 | 1 391 | 1 301 | 1 239 | 1 199 | 1 158 |
| Nordland | 2 730 | 2 529 | 2 128 | 2 011 | 1 884 | 1 792 | 1 702 |
| Nord-Trøndelag | 335 | 324 | 216 | 199 | 198 | 196 | 191 |
| Sør-Trøndelag | 365 | 348 | 298 | 293 | 307 | 307 | 314 |
| Møre og Romsdal | 1 171 | 1 127 | 949 | 883 | 812 | 769 | 731 |
| Sogn og Fjordane | 553 | 506 | 401 | 363 | 335 | 315 | 308 |
| Hordaland | 680 | 675 | 543 | 526 | 503 | 493 | 464 |
| Rogaland | 489 | 492 | 426 | 398 | 375 | 352 | 342 |
| Vest-Agder | 351 | 343 | 274 | 251 | 236 | 241 | 250 |
| Aust-Agder | 142 | 141 | 118 | 110 | 103 | 102 | 100 |
| Telemark | 83 | 86 | 75 | 75 | 62 | 60 | 60 |
| Vestfold | 93 | 91 | 69 | 64 | 59 | 60 | 65 |
| Buskerud | 7 | 8 | 4 | 5 | 5 | 4 | 5 |
| Oppland | – | – | – | – | 1 | – | – |
| Hedmark | – | – | – | – | 1 | – | – |
| Akershus | 20 | 21 | 16 | 13 | 12 | 12 | 13 |
| Oslo | 10 | 9 | 5 | 3 | 2 | 6 | 6 |
| Østfold | 146 | 141 | 120 | 0121 | 118 | 115 | 108 |
| Total | 10 641 | 9 915 | 8 189 | 7 722 | 7 300 | 7 039 | 6 790 |

The Directorate of Fisheries



The Norwegian Economic Zone



* Adjacent area in the Barents Sea is covered by a temporary agreement between Norway and The Russian Federation.

Catches landed by Norwegian fishing vessels 2005-2008

live weight tonnes

| Species | 2005 | 2006 | 2007 | 2008 |
|-----------------------|------------------|------------------|------------------|------------------|
| Herring | 748 220 | 710 591 | 884 593 | 1 025 493 |
| Sardines | 1 957 | 11 470 | 12 933 | 4 453 |
| Mackerel | 119 878 | 122 011 | 131 698 | 121 492 |
| Capelin | 67 339 | 2 047 | 41 098 | 40 907 |
| Kolmule | 738 599 | 642 452 | 539 589 | 418 289 |
| Sandeel | 17 661 | 20 151 | 55 856 | 88 203 |
| Horse mackerel | 25 113 | 27 224 | 5 425 | 12 244 |
| Cod | 225 775 | 221 299 | 217 787 | 215 221 |
| Saithe | 230 567 | 256 856 | 225 464 | 227 513 |
| Haddock | 63 337 | 71 412 | 73 280 | 74 617 |
| Tusk | 11 862 | 14 347 | 15 293 | 16 196 |
| Ling | 15 133 | 17 195 | 19 049 | 16 603 |
| Redfish | 12 960 | 17 345 | 13 722 | 8 072 |
| Greenland halibut | 15 632 | 13 336 | 10 163 | 9 058 |
| Shrimp | 48 311 | 38 709 | 37 295 | 30 180 |
| Mussels | 727 | 808 | 876 | 918 |
| Seaweed and seatangle | 153 906 | 145 429 | 134 671 | - |
| Other | 48 975 | 69 300 | 109 300 | 123 657 |
| Total | 2 545 952 | 2 401 982 | 2 528 092 | 2 433 116 |

Statistics are compiled on information from landings and contract notes sent from Fishermen's Sales Organisations to the Directorate of Fisheries per May 26th 2009.

The Directorate of Fisheries

Catches landed by Norwegian fishing vessels 2005-2008

1000 NOK

| Species | 2005 | 2006 | 2007 | 2008 |
|-------------------|-------------------|-------------------|-------------------|-------------------|
| Herring | 2 867 308 | 2 245 883 | 2 224 846 | 2 796 045 |
| Sprat | 9 280 | 22 014 | 30 942 | 18 522 |
| Mackerel | 1 495 157 | 975 894 | 979 479 | 1 290 272 |
| Capelin | 93 043 | 4 050 | 95 091 | 98 599 |
| Blue whiting | 531 798 | 773 253 | 847 982 | 423 970 |
| Sandeel | 14 266 | 27 091 | 85 396 | 101 874 |
| Horsemackerel | 111 363 | 115 341 | 19 006 | 101 754 |
| Cod | 2 984 547 | 3 305 251 | 3 693 233 | 3 497 234 |
| Saithe | 1 101 549 | 1 395 019 | 1 264 863 | 1 265 871 |
| Haddock | 524 945 | 775 560 | 840 534 | 645 605 |
| Tusk | 88 401 | 122 280 | 130 399 | 128 864 |
| Ling | 178 860 | 229 596 | 245 860 | 239 238 |
| Redfish | 124 647 | 165 213 | 100 234 | 65 352 |
| Greenland halibut | 321 568 | 282 249 | 177 496 | 182 022 |
| Prawns | 679 314 | 617 240 | 662 438 | 580 610 |
| Mussels | 14 436 | 16 655 | 18 100 | 19 137 |
| Seaweed and kelp | 29 869 | 28 507 | 26 678 | – |
| Other | 517 358 | 608 388 | 633 470 | 646 795 |
| Total | 11 687 739 | 11 709 484 | 12 076 047 | 12 101 764 |

Statistics are compiled on information from landings and contract notes sent from Fishermen's Sales Organisations to the Directorate of Fisheries per May 26th 2009..

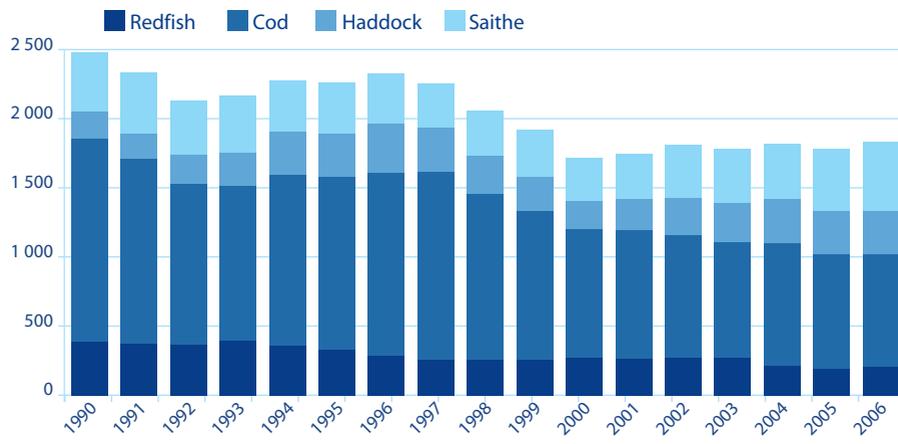
The Directorate of Fisheries



Whitefish

Catches of whitefish in the North Atlantic 1990-2006

1000 tonnes



FAO, The Directorate of Fisheries

Norwegian exports of whitefish 2008

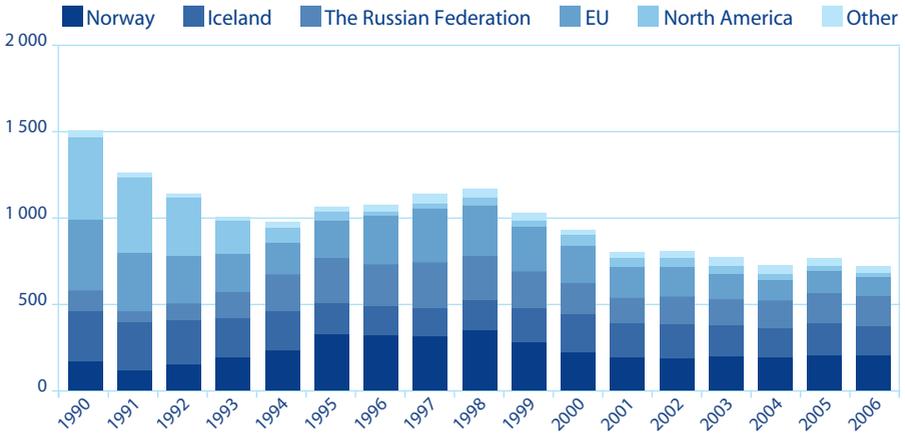
1000 NOK, tonnes

| Species | Value | Quantity | Species | Value | Quantity |
|---------|-----------|----------|-----------------|------------------|----------------|
| Cod | 5 511 914 | 111 353 | Redfish | 101 603 | 7 611 |
| Saithe | 2 008 282 | 124 072 | Other whitefish | 50 509 | 1 638 |
| Haddock | 818 138 | 41 102 | Hake | 38 142 | 1 225 |
| Ling | 384 187 | 8 475 | Pollack | 32 042 | 1 328 |
| Tusk | 164 408 | 4 722 | Wolffish | 28 254 | 1 920 |
| Angler | 131 321 | 2 802 | Total | 9 268 799 | 306 249 |

Statistics Norway, the Norwegian Seafood Export Council

Catches of cod in the North-Atlantic 1990-2006

1000 tonnes



FAO, the Norwegian Seafood Export Council

Norway's main export markets for cod 2008

1000 NOK, tonnes

| Country | Value | Quantity | Country | Value | Quantity |
|-----------------|-----------|----------|-------------------------|--------|----------|
| Portugal | 1 867 947 | 36 937 | Nigeria | 83 626 | 2 592 |
| Italy | 535 606 | 5 147 | Greece | 78 063 | 1 815 |
| France | 508 981 | 8 238 | China | 69 065 | 2 949 |
| Denmark | 433 383 | 12 124 | Belgium | 67 992 | 1 255 |
| Brasil | 430 626 | 6916 | Germany | 67 784 | 1 234 |
| Great Britain | 391 977 | 8723 | Switzerland | 48 975 | 788 |
| Spain | 332 148 | 7493 | Poland | 47 460 | 2 023 |
| The Netherlands | 178 633 | 5101 | Croatia | 27 789 | 181 |
| Sweden | 115 081 | 2 829 | Lithuania | 22 926 | 951 |
| USA | 88 157 | 1 426 | Virgin Islands, British | 17 412 | 632 |

Statistics Norway, the Norwegian Seafood Export Council

Pelagic fish

Norwegian exports of pelagic fish for consumption 2008

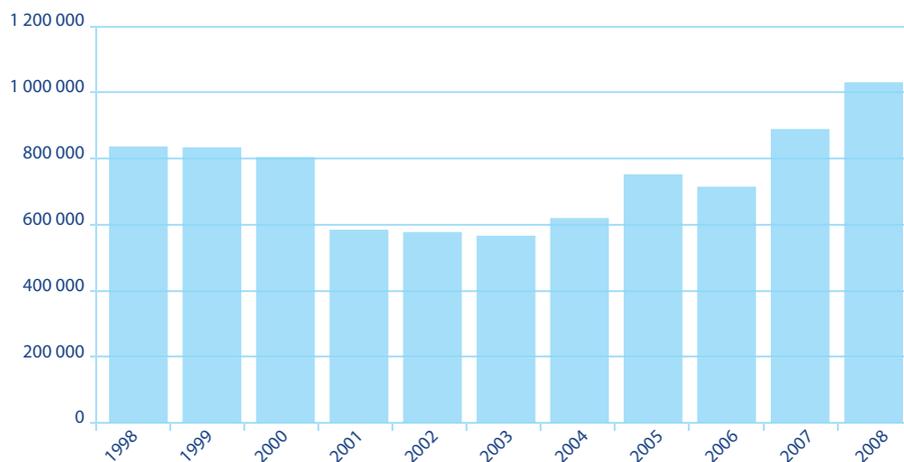
1000 NOK, tonnes

| Species | Value | Quantity |
|-------------------------------|------------------|----------------|
| Herring | 3 849 442 | 734 072 |
| Mackerel | 2 329 574 | 176 036 |
| Capelin | 149 972 | 30 951 |
| Horse mackerel | 117 898 | 11 133 |
| Kolmule | 29 791 | 9 103 |
| Other pelagic other than tuna | 27 536 | 4 133 |
| Anchovy | 79 | 1 |
| Tuna | 43 | 1 |
| Total | 6 504 336 | 965 427 |

Statistics Norway, the Norwegian Seafood Export Council

Norwegian catches of herring 1998-2008

live weight tonnes



Statistics are compiled on information from landings and contract notes sent from Fishermen's Sales Organisations to the Directorate of Fisheries per May 26th 2009.

The Directorate of Fisheries

Norway's main export markets for herring 2008

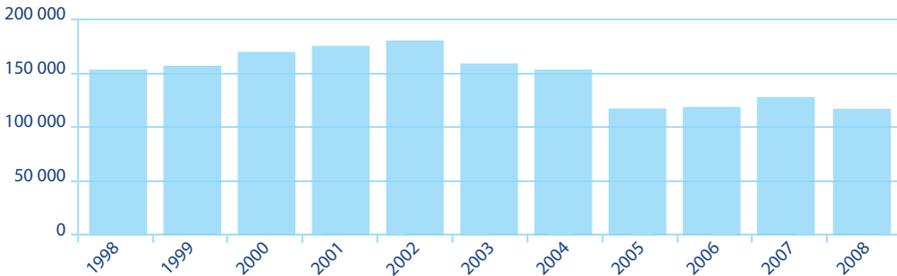
1000 NOK, tonnes

| Country | Value | Quantity | Country | Value | Quantity |
|------------------------|-----------|----------|---------------|--------|----------|
| The Russian Federation | 1 151 341 | 217 825 | Great Britain | 67 437 | 15 195 |
| Ukraine | 526 817 | 95 851 | Kazakhstan | 65 065 | 13 559 |
| Nigeria | 502 762 | 138 506 | Japan | 55 594 | 10 858 |
| Polen | 279 010 | 34 387 | Egypt | 47 452 | 15 186 |
| Denmark | 248 022 | 61 810 | France | 32 197 | 4 278 |
| Germany | 199 314 | 25 754 | Finland | 28 243 | 2 222 |
| The Netherlands | 187 436 | 21 555 | Israel | 22 934 | 3 010 |
| Lithuania | 105 618 | 20 933 | Latvia | 19 730 | 3 779 |
| Belarus | 98 507 | 16 549 | Moldova | 16 845 | 3 317 |
| Sweden | 84 018 | 8 498 | Romania | 12 620 | 2 729 |

Statistics Norway, the Norwegian Seafood Export Council

Catches of mackerel by Norwegian fishing vessels 1998-2008

live weight tonnes



Statistics are compiled on information from landings and contract notes sent from Fishermen's Sales Organisations to the Directorate of Fisheries per May 26th 2009.

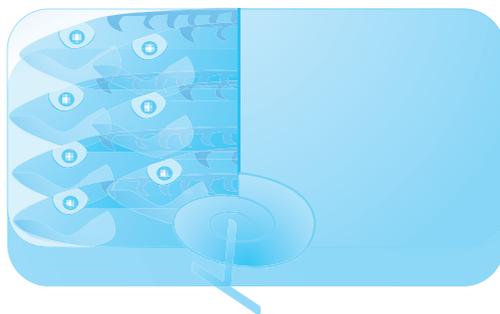
The Directorate of Fisheries

Norway's main export markets for mackerel 2008

1000 NOK, tonnes

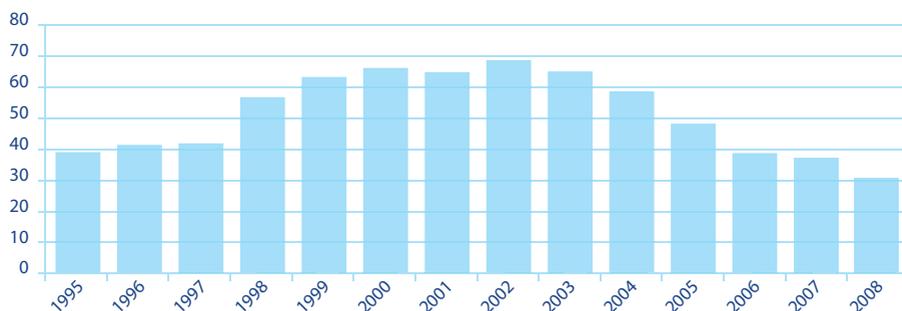
| Country | Value | Quantity |
|------------------------|---------|----------|
| Japan | 919 391 | 59 313 |
| China | 390 532 | 33 158 |
| The Russian Federation | 218 583 | 16 502 |
| Ukraine | 138 419 | 10 311 |
| Turkey | 81 939 | 10 384 |
| USA | 61 578 | 2 957 |
| Great Britain | 58 108 | 4 850 |
| Poland | 57 887 | 6 422 |
| South-Korea | 53 671 | 3 384 |
| Sweden | 41 355 | 1 748 |
| Belarus | 35 995 | 2 798 |
| Romania | 31 033 | 3 928 |
| The Netherlands | 25 975 | 2 682 |
| Thailand | 24 569 | 1 859 |
| Israel | 22 463 | 1 310 |
| Kazakhstan | 19 690 | 1 419 |
| Germany | 14 062 | 822 |
| Taiwan | 13 771 | 912 |
| Lithuania | 12 611 | 1 074 |
| France | 12 545 | 1 209 |

Statistics Norway, the Norwegian Seafood Export Council



Shrimp

Catches of shrimp by Norwegian fishing vessels 1995-2008 *live weight tonnes*



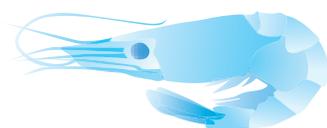
Statistics are compiled on information from landings and contract notes sent from Fishermen's Sales Organisations to the Directorate of Fisheries per May 26th 2009.

The Directorate of Fisheries

Norway's main export markets for shrimp 2008 *1000 NOK, tonnes*

| Country | Value | Quantity | Country | Value | Quantity |
|---------------|---------|----------|-----------------|-------|----------|
| Sweden | 233 539 | 5 521 | Germany | 3 415 | 59 |
| Great Britain | 146 792 | 3 521 | Estonia | 2 844 | 131 |
| Iceland | 110 856 | 8 524 | The Netherlands | 2 589 | 40 |
| Finland | 70 937 | 1 563 | Japan | 2 026 | 54 |
| Denmark | 41 564 | 1 188 | China | 1 671 | 119 |
| France | 13 881 | 245 | South Korea | 1 582 | 43 |
| Italy | 5 575 | 72 | Ukraine | 1 515 | 40 |
| Spain | 4 471 | 94 | India | 1 217 | 26 |
| Singapore | 4 187 | 105 | Turkey | 951 | 18 |
| Switzerland | 4 177 | 84 | Saudi Arabia | 660 | 13 |

Statistics Norway, the Norwegian Seafood Export Council



Marine mammals

Norwegian sealing 1980-2008

| Year | Hooded seal (The West Ice) | Harp seal (The West Ice) | Harp seal (The East Ice) |
|------|----------------------------|--------------------------|--------------------------|
| 1980 | 9 768 | 9 983 | 15 202 |
| 1985 | 338 | 557 | 19 007 |
| 1990 | 4 235 | 508 | 9 522 |
| 1995 | 933 | 8 206 | 6 357 |
| 2000 | 1 936 | 12 343 | 6 357 |
| 2006 | 3 647 | 3 304 | 10 086 |
| 2007 | 62 | 7 828 | 6 153 |
| 2008 | 0 | 891 | 0 |

The Directorate of Fisheries

Norwegian coastal seal hunt 2002-2008

| Year | Harbour seal | Gray seal |
|------|--------------|-----------|
| 2002 | 498 | 110 |
| 2003 | 457 | 353 |
| 2004 | 549 | 302 |
| 2005 | 614 | 379 |
| 2006 | 538 | 272 |
| 2007 | 905 | 456 |
| 2008 | 900 | 392 |

The Directorate of Fisheries

Norwegian minke whaling 1997-2008

| Year | Vessels | Number of animals |
|------|---------|-------------------|
| 1997 | 31 | 503 |
| 1998 | 34 | 625 |
| 1999 | 34 | 591 |
| 2000 | 33 | 487 |
| 2001 | 33 | 552 |
| 2002 | 34 | 634 |
| 2003 | 34 | 647 |
| 2004 | 34 | 543 |
| 2005 | 31 | 639 |
| 2006 | 28 | 545 |
| 2007 | 28 | 593 |
| 2008 | 27 | 535 |

The Directorate of Fisheries

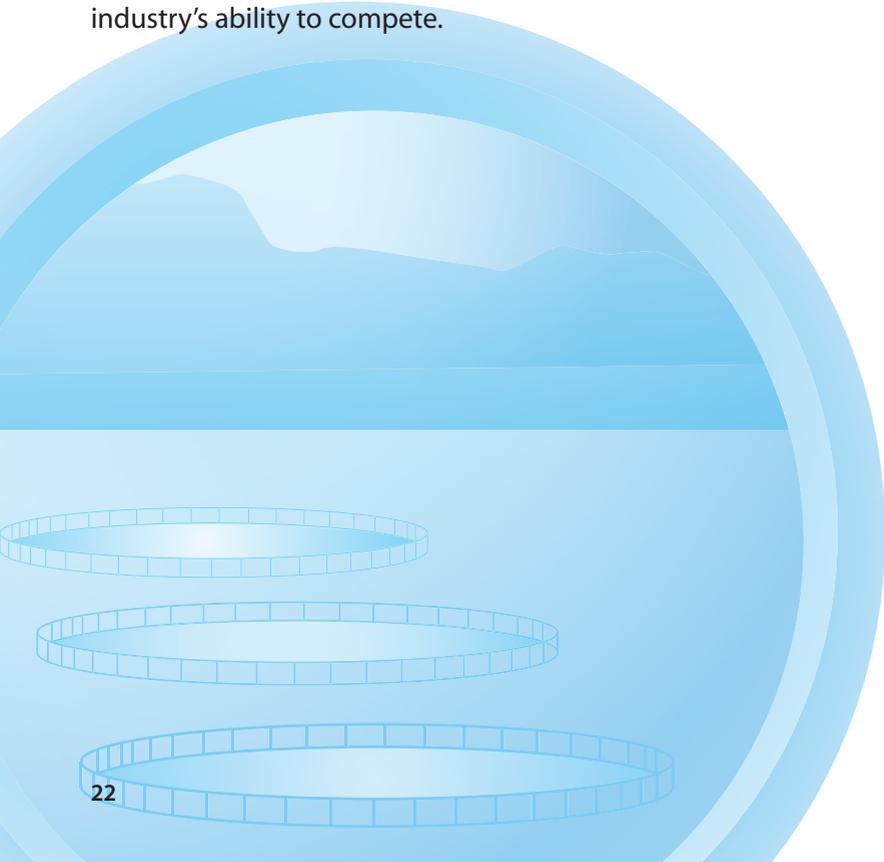


Aquaculture

The Norwegian aquaculture industry is a modern, internationally competitive industry that produces high quality food in an efficient manner. In terms of value, aquaculture products account for almost half of the total Norwegian fish export.

Atlantic salmon and rainbow trout are the dominating species in the aquaculture industry, however, extensive development is taking place with a view toward farming several new species, such as cod, halibut, wolf fish and shellfish.

A licence from the authorities is required to farm fish and shellfish in Norway. Environmental considerations and efforts related to fish health and welfare are given high priority in the industry and public administration, and will be an important condition for the aquaculture industry's ability to compete.



Number of licences for atlantic salmon, rainbow trout and trout 1995 og 2008

by county

| County | 1995 | | | | 2008 | | | |
|------------------|------------|-------------|-------------|-----------|------------|-------------|-------------|-----------|
| | Smolt | Farmed fish | Brood stock | FoU | Smolt | Farmed fish | Brood stock | FoU |
| Finnmark | 3 | 33 | 1 | 1 | 6 | 83 | 1 | 2 |
| Troms | 22 | 65 | 1 | 1 | 14 | 86 | 1 | 3 |
| Nordland | 34 | 131 | 2 | 6 | 40 | 144 | 2 | 8 |
| Nord-Trøndelag | 18 | 55 | 1 | 2 | 18 | 64 | 1 | 3 |
| Sør-Trøndelag | 26 | 76 | 2 | 2 | 25 | 83 | 2 | 3 |
| Møre og Romsdal | 51 | 95 | 14 | 4 | 38 | 97 | 6 | 6 |
| Sogn og Fjordane | 39 | 71 | 2 | 1 | 25 | 84 | 1 | 0 |
| Hordaland | 80 | 135 | 9 | 6 | 63 | 150 | 6 | 7 |
| Rogaland | 29 | 52 | 4 | 2 | 24 | 57 | 2 | 12 |
| Vest-Agder | 6 | 12 | - | - | 3 | 13 | - | - |
| Aust-Agder | 2 | 6 | - | - | 1 | 2 | 1 | - |
| Other counties | 34 | 76 | 5 | 3 | 28 | 53 | 5 | 3 |
| Total | 344 | 807 | 41 | 28 | 285 | 916 | 28 | 47 |

The Directorate of Fisheries per May 7th 2009

Number of licences for other species* 1995 og 2008

by county

| County | 1995 | 2008 |
|------------------|------------|------------|
| Finnmark | 39 | 63 |
| Troms | 24 | 21 |
| Nordland | 71 | 198 |
| Nord-Trøndelag | 15 | 34 |
| Sør-Trøndelag | 27 | 27 |
| Møre og Romsdal | 41 | 98 |
| Sogn og Fjordane | 23 | 67 |
| Hordaland | 92 | 77 |
| Rogaland | 30 | 70 |
| Vest-Agder | 8 | 6 |
| Aust-Agder | 2 | 8 |
| Other counties | 12 | 9 |
| Total | 384 | 678 |

* Other species but atlantic salmon and rainbow trout

The Directorate of Fisheries per May 7th 2009

Number of licences* for other species 1995 og 2008

species

| Species | 1995 | 2008 |
|--------------|------------|--------------|
| Haddock | – | 19 |
| Halibut | 39 | 109 |
| Hake | – | 11 |
| Marine* | 75 | – |
| Turbot | 3 | 35 |
| Char | 45 | 52 |
| Wolffish | – | 48 |
| Cod | 200 | 533 |
| Eel | 14 | 17 |
| Other | 8 | 223 |
| Total | 384 | 1 047 |

In this chart licences are counted several times, and therefore give a higher total than the chart « Number of licences for other species, by county».

The Directorate of Fisheries per May 7th 2009

* Licences that include several species

Number of licences for shellfish 1995 og 2008

by county

| County | 1995 | 2008 |
|------------------|------------|------------|
| Finnmark | 3 | 16 |
| Troms | 6 | 16 |
| Nordland | 45 | 119 |
| Nord-Trøndelag | 22 | 41 |
| Sør-Trøndelag | 30 | 33 |
| Møre og Romsdal | 36 | 32 |
| Sogn og Fjordane | 8 | 66 |
| Hordaland | 26 | 104 |
| Rogaland | 19 | 47 |
| Vest-Agder | 1 | 13 |
| Aust-Agder | 4 | 26 |
| Other counties | 13 | 24 |
| Total | 213 | 537 |



The Directorate of Fisheries per May 7th 2009

Number of licences for shellfish 2003-2008

species

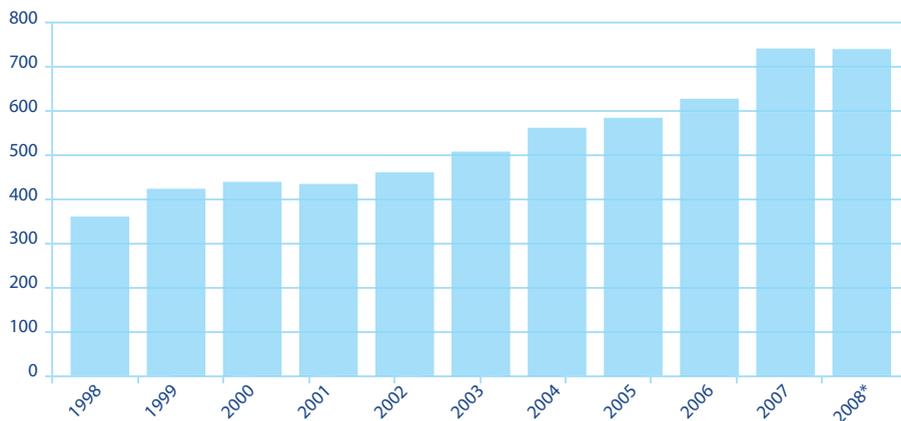
| Species | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
|---------------|--------------|--------------|--------------|------------|------------|------------|
| Mussel | 750 | 728 | 668 | 580 | 531 | 417 |
| Lobster | 11 | 15 | 18 | 22 | 22 | 27 |
| Scallop | 127 | 123 | 114 | 104 | 97 | 98 |
| Sea porcupine | 35 | 36 | 26 | 23 | 21 | 16 |
| Oyster | 136 | 130 | 130 | 117 | 108 | 117 |
| Other | 123 | 116 | 109 | 98 | 99 | 132 |
| Total | 1 182 | 1 148 | 1 065 | 944 | 878 | 807 |

Some licences comprehend several species. In the table above some licences are counted several times. The total number of licences in the table above are therefore higher than total number presented in table specified on counties.

The Directorate of Fisheries per May 7th 2009

Sales turnover of Norwegian farmed atlantic salmon 1998-2008

live weight, 1000 tonnes



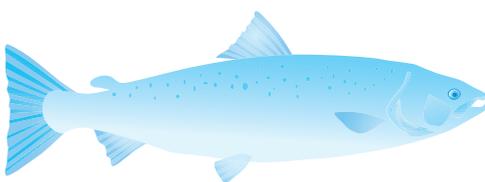
* The figures for 2008 are preliminary per June 2009

Statistics Norway, The Directorate of Fisheries

Norwegian export of farmed atlantic salmon 1998-2008

1000 NOK, tonnes

| Year | Value | Quantity |
|------|------------|----------|
| 1998 | 8 763 296 | 281 915 |
| 1999 | 10 766 037 | 337 977 |
| 2000 | 12 269 775 | 343 031 |
| 2001 | 10 003 588 | 338 594 |
| 2002 | 9 538 050 | 360 618 |
| 2003 | 10 043 353 | 414 412 |
| 2004 | 11 200 585 | 441 193 |
| 2005 | 13 570 073 | 476 470 |
| 2006 | 17 082 779 | 496 933 |
| 2007 | 17 485 419 | 606 775 |
| 2008 | 18 047 087 | 623 236 |



Statistics Norway, the Norwegian Seafood Export Council

Norway's main export markets for farmed atlantic salmon 2008

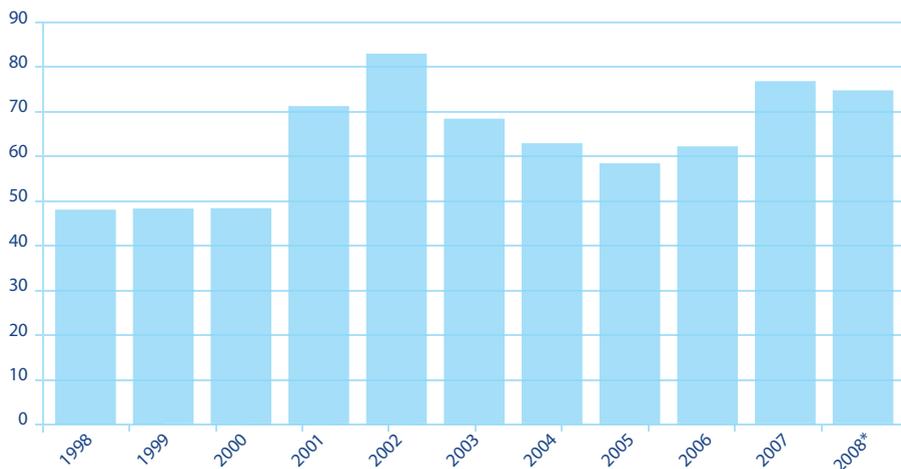
1000 NOK, tonnes

| Country | Value | Quantity | Country | Value | Quantity |
|------------------------|-----------|----------|-----------|---------|----------|
| France | 3 175 379 | 121 072 | Italy | 678 638 | 26 118 |
| Poland | 1 949 227 | 84 105 | Finland | 536 289 | 23 696 |
| Denmark | 1 496 017 | 64 148 | Hong Kong | 341 515 | 12 726 |
| The Russian federation | 1 494 638 | 61 926 | USA | 336 706 | 9 488 |
| Great Britain | 1 024 634 | 42 152 | Ukraine | 277 180 | 12 383 |
| Spain | 961 376 | 38 942 | China | 200 617 | 7 765 |
| Sweden | 926 813 | 33 217 | Latvia | 193 203 | 8 246 |
| Germany | 847 531 | 30 335 | Belgium | 189 382 | 7 422 |
| The Netherlands | 763 057 | 30 140 | Thailand | 188 516 | 7 083 |
| Japan | 749 275 | 24 181 | Portugal | 158 193 | 6 133 |

Statistics Norway, the Norwegian Seafood Export Council

Sales turnover of Norwegian farmed rainbow trout 1998-2008

1000 tonnes



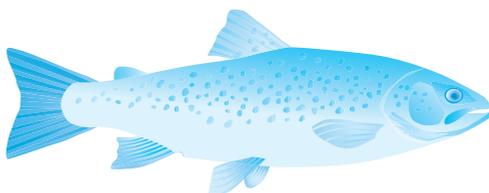
* The figures for 2008 are preliminary per June 2009

Statistics Norway, the Norwegian Seafood Export Council

Norwegian exports of farmed rainbow trout 1999-2008

1000 NOK, tonnes

| Year | Value | Quantity |
|------|-----------|----------|
| 1999 | 1 257 899 | 35 116 |
| 2000 | 973 441 | 27 568 |
| 2001 | 1 092 963 | 45 224 |
| 2002 | 1 361 981 | 62 076 |
| 2003 | 1 260 056 | 53 389 |
| 2004 | 1 199 633 | 47 050 |
| 2005 | 1 245 568 | 43 424 |
| 2006 | 1 314 926 | 38 304 |
| 2007 | 1 270 158 | 49 525 |
| 2008 | 1 866 830 | 75 628 |



Statistics Norway, the Norwegian Seafood Export Council

Norway's main export markets for farmed rainbow trout 2008

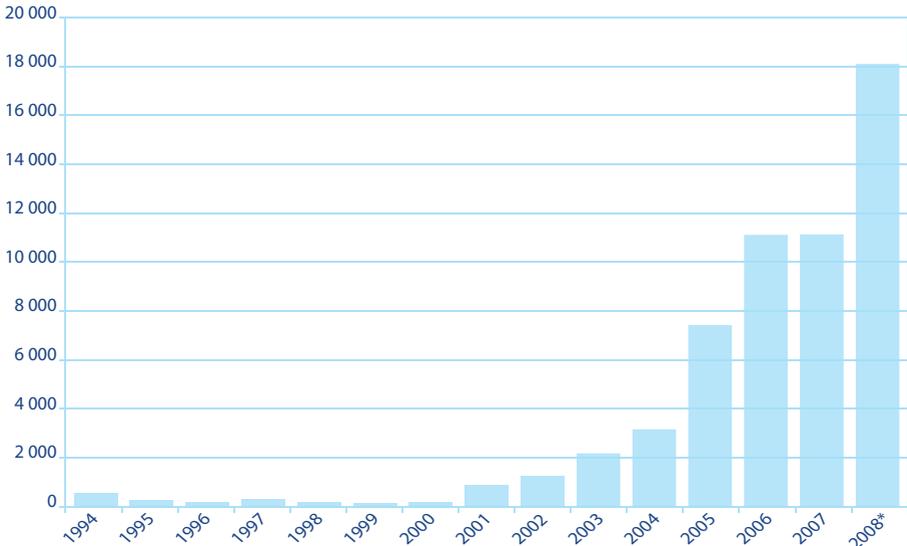
1000 NOK, tonnes

| Country | Value | Quantity | Country | Value | Quantity |
|------------------------|---------|----------|-------------|--------|----------|
| The Russian Federation | 920 662 | 37 090 | South Korea | 15 287 | 606 |
| Japan | 190 533 | 6 792 | Latvia | 14 681 | 598 |
| Ukraine | 176 902 | 7 915 | Turkey | 14 380 | 562 |
| Thailand | 88 408 | 3 318 | Estonia | 13 406 | 565 |
| Taiwan | 76 317 | 2 939 | Malaysia | 11 726 | 451 |
| Denmark | 74 115 | 3 772 | Canada | 11 018 | 195 |
| Belarus | 52 062 | 1 979 | France | 9 465 | 353 |
| China | 48 628 | 2 113 | Spain | 9 144 | 366 |
| Finland | 34 192 | 1 772 | Sweden | 8 350 | 299 |
| Israel | 29 091 | 1 428 | Kasakhstan | 7 183 | 261 |

Statistics Norway, the Norwegian Seafood Export Council

Sales turnover of Norwegian farmed cod 1994-2008

1000 tonnes



* The figures for 2008 are preliminary per June 2009

Statistics Norway, The Directorate of Fisheries

Norwegian exports of farmed cod 2002-2008

1000 NOK, tonnes

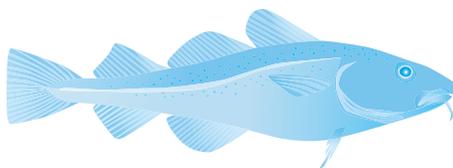
| Year | Value | Quantity |
|------|---------|----------|
| 2002 | 9 415 | 257 |
| 2003 | 21 755 | 604 |
| 2004 | 31 299 | 865 |
| 2005 | 89 655 | 2 543 |
| 2006 | 137 256 | 3 684 |
| 2007 | 165 941 | 4 076 |
| 2008 | 218 957 | 6 225 |

Statistics Norway, the Norwegian Seafood Export Council

Norway's main export markets for farmed cod 2008

1000 NOK, tonnes

| Country | Value | Quantity |
|-----------------|----------------|--------------|
| Denmark | 71 318 | 2 265 |
| France | 52 165 | 1 285 |
| Spain | 19 715 | 580 |
| Sweden | 18 587 | 612 |
| Belgium | 16 694 | 376 |
| Germany | 13 221 | 311 |
| The Netherlands | 11 986 | 368 |
| Great Britain | 7 686 | 244 |
| Italy | 2 172 | 58 |
| Portugal | 1 389 | 37 |
| Other | 4 026 | 88 |
| Total | 218 957 | 6 225 |



Statistics Norway, the Norwegian Seafood Export Council

Research and innovation

Norway is a leader internationally in management-related research. This research provides an important basis for setting quotas for the various types of fish and for questions related to food safety and nutrition.

Industry-related research in the fishing and aquaculture sector is also conducted at a high, international level. Increasingly more knowledge and expertise is required in the marine sector. Increased knowledge and expertise contribute to improved competitive abilities and new employment in existing and new industries. There are many opportunities linked to the better use of by-products, biotechnology and marine resources that have not yet been made use of.

The Norwegian focus on marine industry development through research and education is long-term. More than a billion Norwegian kroner are allocated each year from the Norwegian national budget to marine research. The objective of the new marine research and innovation programme is to ensure that Norwegian companies, to an even greater extent, will be able to offer the kind of seafood the markets demand.

Research vessels of the Institute of Marine Research 2008

| Vessel | Cruisedays total 2008 | Cruisedays total 2007 |
|-----------------------|-----------------------|-----------------------|
| «G.O. Sars» | 278 | 301 |
| «Johan Hjort» | 253 | 309 |
| «G.M. Dannevig» | 180 | 195 |
| «Håkon Mosby» | 255 | 304 |
| «Dr. Fridtjof Nansen» | 319 | 311 |
| «Hans Brattström» | 216 | 231 |
| «Fangst» | 200 | 188 |
| «Jan Mayen» | 75 | 71 |
| Other vessels | 947 | 999 |
| Total | 2 723 | 2 909 |

Institute of Marine Research

Research and development expenses and funding sources in the marine sector 2007

mill NOK and percentage

| Field of funding | Universities- and colleges | Institutes | Industry and commerce * | Total | Percentage |
|----------------------|-------------------------------|--------------|----------------------------|--------------|------------|
| Governmental funding | 462 | 1020 | 28 | 1 510 | 68 |
| Private funding | 60 | 336 | 302 | 698 | 32 |
| Total | 522 | 1 357 | 330 | 2 208 | 100 |

* Because of a low percentage of feedback the basis of figures may be somewhat underestimated

NIFU STEP



Research and development expenses and research area in marine sector 2007

mill NOK and percentage

| Marine research and development area | UoH | Institutes | Commerce | Total | % |
|--|------------|--------------|------------|--------------|------------|
| Basic marine biology | 103 | 92 | 2 | 196 | 9 |
| Marine biodiversity | 44 | 159 | 1 | 204 | 9 |
| Oceanography, climate research, ecology, environmental toxicology, environmental poisons and eutrophication | 128 | 240 | 4 | 372 | 17 |
| Technology for surveillance and estimates of stocks for marine resources | 11 | 78 | 28 | 117 | 5 |
| Mathematical and numeric models for marine research | 53 | 122 | 0 | 175 | 8 |
| Bio economics and bio economical models | 8 | 7 | 0 | 15 | 1 |
| Aquaculture, combination of catches and fish-farming | 36 | 366 | 191 | 593 | 27 |
| Marine and maritime technology, fisheries, aquaculture and integrated transport solutions | 5 | 73 | 17 | 95 | 4 |
| Marine biotechnology | 72 | 54 | 69 | 195 | 9 |
| Food processing industry based on marine resources (processing, - technics, hygienics, logistics, quality control and nutrition) | 24 | 96 | 18 | 137 | 6 |
| Market, organisation, framework conditions, society, politics and coastal management | 38 | 70 | 2 | 110 | 5 |
| Total | 522 | 1 357 | 330 | 2 208 | 100 |

NIFU STEP





fisheries.no

Norway's official
site on seafood safety
and resource and
aquaculture management

**The Norwegian Ministry of Fisheries
and Coastal Affairs**

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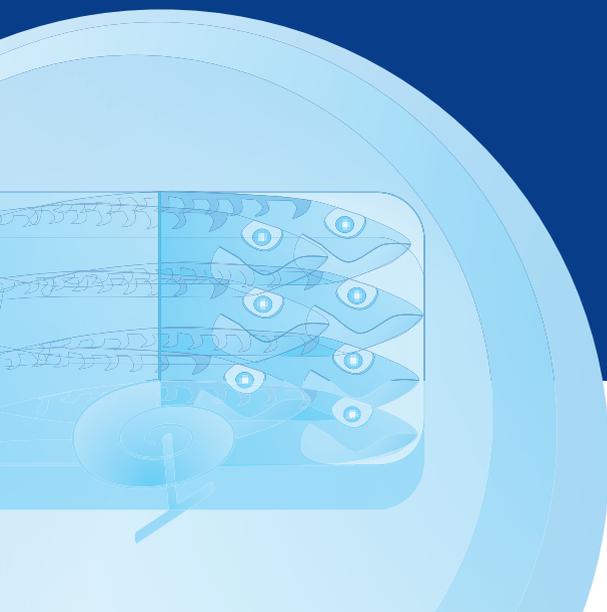
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