

KEDUDUKAN SEKTOR PERIKANAN DI MALAYSIA 1990

1. MAKLUMAT LATARBELAKANG

- 1.1 Sektor Perikanan di Malaysia telah mengalami perubahan dalam beberapa tahun yang lalu. Pada tahun 1990, pengeluarannya telah mencapai paras yang tertinggi iaitu pada 951,307 tan metrik. Objektif Kerajaan supaya pendaratan ikan negara ditingkatkan bagi memenuhi permintaan dalam negeri.
- 1.2 Secara amnya nilai ikan juga telah bertambah iaitu mencapai \$1,960 juta (nilai borong) dan ini menyumbangkan lebih kurang 2.6% kepada Keluaran Dalam Negeri Kasar (KDNK).
- 1.3 Pendaratan bot-bot laut dalam telah bertambah dalam tiga tahun yang lalu iaitu daripada 58,313 tan pada tahun 1988 kepada 92,927 tan pada tahun 1990.

2. GUNATENAGA

- 2.1 Pada tahun 1990 sebanyak 88,494 orang nelayan terlibat dalam sektor perikanan berbanding dengan 93,545 pada 1989 iaitu berkurangan sebanyak 5.7%. Kemosrotan ini berlaku di Semenanjung Malaysia dan Sabah masing-masing sebanyak 4.4% dan 11.9%, manakala bilangan tidak berubah untuk Sarawak. Kemelesetan untuk Semenanjung Malaysia berlaku terutamanya bagi pukot jerut ikan (9.1%), pukot jerut bilis (11.5%), pukot hanyut (5.4%), pukot tangguk (11.2%), bubu (9.8%), pukot bakul (10.5%), pukot surung (20.45%), pukot rentang (6.33%) dan memungut siput (20.07%). Kenaikan bilangan nelayan

adalah hanya untuk perkakas rampaian (33.55%), dan selain daripada itu, bilangan nelayan tidak berubah dengan banyak untuk perkakas-perkakas yang lain (pukat tunda, + 1.6%; pancing, + 2.6% dan pengangkut ikan, + 5.4%). Jadual 1 menunjukkan bilangan nelayan mengikut kawasan.

Jadual 1: Bilangan Nelayan di Malaysia (1989 - 1990)

| Kawasan | 1989 | 1990 | % Perubahan |
|----------------------|--------|--------|-------------|
| Semenanjung Malaysia | 62,580 | 59,801 | -4.44% |
| Sarawak | 12,358 | 12,197 | -1.30% |
| Sabah | 18,250 | 16,082 | -11.88% |
| Labuan | 357 | 414 | 15.97% |
| Jumlah | 93,545 | 88,494 | -5.40% |

2.2 Di Sabah pula, kemerosotan bilangan nelayan adalah untuk mereka yang bekerja di atas bot tunda (27.7%), pukat jerut ikan (38.1%), pukat tangguk (30.9%), belat (23.1%) dan pukat hanyut (10.1%). Bilangan nelayan bagaimanapun bertambah sebanyak 114.6% untuk bubu dan 215.9% bagi pancing. Perubahan di Sarawak berlaku untuk pukat tunda (turun 8.2%), pukat bakul (turun 33.9%), pukat surung (turun 43.21%); pukat jerut ikan (naik 17%); pukat tangguk (naik 90.9%); belat (naik 189.9%); bubu (naik 64.18%); pancing (naik 122.7%); sementara yang bakinya tidak berubah dengan nyata.

3. BOT-BOT MENANGKAP IKAN

- 3.1 Bilangan bot-bot yang dilesenkan di Malaysia menurun sedikit iaitu 1.1% daripada 39,970 unit kepada 39,541 unit. Bilangan ini berkurangan sebanyak 1.4% daripada 23,459 kepada 23,134 unit untuk Semenanjung Malaysia, 1.4% untuk Sarawak iaitu daripada 7,165 kepada 7,066 unit, 3.4% bagi Labuan, daripada 146 kepada berada pada 141 unit dan tidak berubah untuk Sabah (9,200 unit).
- 3.2 Bilangan bot-bot 70 GRT ke atas telah bertambah dari 565 unit kepada 586 unit dengan kadar 3.7% untuk keseluruhan Malaysia. Semenanjung Malaysia mempunyai 424 unit, Sarawak 116, Sabah 44, dan Labuan 2 unit. Jadual 2 menunjuk bahawa bilangan bot-bot laut dalam (70 GRT dan ke atas) semakin bertambah berbanding dengan bot-bot yang lain.

Jadual 2: Bilangan Bot Berlesen (Kebawah 70 GRT) dan (70 GRT keatas) di Sem. Malaysia

| Tahun | Kebawah 70 GRT | 70 GRT keatas |
|-------|----------------|---------------|
| 1984 | 25,589 | 84 |
| 1985 | 23,236 | 135 |
| 1986 | 22,321 | 155 |
| 1987 | 21,880 | 258 |
| 1988 | 21,025 | 316 |
| 1989 | 23,048 | 411 |
| 1990 | 22,710 | 424 |

3.3 Bilangan bot pukat tunda yang dilesenkan (7,011 unit) turun sebanyak 1.8%, pukat jerut ikan (775 unit) sebanyak 5.6%, pukat jerut bilis (159 unit) sebanyak 8.6%, pukat surung (83 unit) sebanyak 10.8% dan rampaian (1,479 unit) sebanyak 6.6%. Sebaliknya bilangan lesen yang dikeluarkan untuk belat dan bubu masing-masing naik sebanyak 45.2% dan 13.5%. (485 unit dan 707 unit). Bilangan lesen untuk perkakas- perkakas lain cuma berubah dalam lingkungan 1%.

4. PERKAKAS MENANGKAP IKAN

4.1 Bilangan lesen perkakas yang dikeluarkan di Malaysia pada 1990 berjumlah 34,457 unit berbanding dengan 34,257 unit dalam tahun 1989 iaitu bertambah 0.6%. Pengurangan berlaku untuk Semenanjung Malaysia sebanyak 1.4% (daripada 23,459 kepada 23,134 unit); Sarawak sebanyak 1.9% (daripada 7,955 kepada 7,803) dan Labuan sebanyak 9.6% (156 kepada 141 unit). Sebaliknya, bilangan bertambah sebanyak 25.8% daripada 2,687 unit pada 1989 kepada 3,379 unit untuk Sabah. Jadual 3 menunjukkan bilangan lesen perkakas mengikut jenis.

Jadual 3: Bilangan Perkakas Menangkap Ikan yang di lesenkan di Malaysia.

| Jenis Perkakas | 1989 | 1990 | % Perubahan |
|-------------------|---------------|---------------|--------------|
| Pukat Tunda | 6,384 | 6,257 | -1.99% |
| Pukat Jerut Ikan | 752 | 719 | -4.39% |
| Pukat Jerut Bilis | 174 | 159 | -8.62% |
| Lain Tarik | 1,025 | 981 | -4.29% |
| Pukat hanyut | 18,883 | 19,158 | 1.46% |
| Pukat Tangguk | 367 | 509 | 38.69% |
| Belat | 235 | 367 | 56.17% |
| Bubu | 712 | 762 | 7.02% |
| Pancing | 2,912 | 2,828 | -2.88% |
| Pukat Bakul | 1,398 | 1,244 | -11.02% |
| Pukat Rentang | 447 | 483 | 8.05% |
| Pukat Surung | 152 | 130 | -14.47% |
| Memunggut | 215 | 196 | -8.84% |
| Rampaian | 601 | 664 | 10.48% |
| Jumlah | 34,257 | 34,457 | 0.58% |

5. PENDARATAN IKAN LAUT

5.1 Jumlah pendaratan ikan laut bertambah sebanyak 7.8% daripada 882,492 tan pada tahun 1989 kepada 951,307 tan pada tahun 1990. Semenanjung Malaysia mencatatkan pertumbuhan sebanyak 9.8%, Labuan 7.1% dan Sabah 1.7%, manakala ianya menurun sebanyak 6.5% untuk Sarawak. Mengikut kawasan di Semenanjung Malaysia, pendaratan di Pantai Timur bertambah sebanyak 20.1%, sementara Pahang mencatatkan pendaratan tertinggi sebanyak 53.3% diikuti oleh Terengganu 23.4%. Pendaratan turun sedikit untuk Kelantan dan Johor Timur iaitu masing-masing 4.3% dan 2.3%. Pendaratan di Pantai Barat Semenanjung Malaysia naik sebanyak 4.3%; dimana Negeri Sembilan meningkat 57.9%, Pulau Pinang 35.4%, Melaka 18.8%, Kedah 14.3%, Perak 10.1%, dan Perlis 9.1%. Bagaimanapun, pendaratan di Selangor dan Johor Barat masing-masing merosot sebanyak 57.9% dan 10.8%. Jadual 4 menunjukkan pendaratan ikan marin mengikut negeri.

Jadual 4: Pendaratan Ikan Marin (tan metrik) - Malaysia 1989 - 1990

| Negeri | 1989 | 1990 | % Perubahan |
|--------------------------|----------------|----------------|--------------|
| Perlis | 42,360 | 46,206 | 9.1% |
| Kedah | 75,615 | 86,408 | 14.3% |
| P.Pinang | 38,624 | 52,278 | 35.4% |
| Perak | 198,974 | 219,044 | 10.1% |
| Selangor | 112,646 | 86,966 | -22.8% |
| N.Sembilan | 221 | 349 | 57.9% |
| Melaka | 1,989 | 2,363 | 18.8% |
| Johor Barat | 18,905 | 16,857 | -10.8% |
| Jum Pantai Barat | 489,334 | 510,471 | 4.3% |
| Kelantan | 32,982 | 31,557 | -4.3% |
| Terengganu | 78,815 | 97,236 | 23.4% |
| Pahang | 68,730 | 105,370 | 53.3% |
| Johor Timur | 77,023 | 75,269 | -2.3% |
| Jum Pantai Timur | 257,550 | 309,432 | 20.1% |
| Jum Sem. Malaysia | 746,884 | 819,903 | 9.8% |
| Sabah | 44,000 | 44,760 | 1.7% |
| Sarawak | 84,356 | 78,878 | -6.5% |
| Labuan | 7,252 | 7,766 | 7.1% |
| Jumlah Besar | 882,492 | 951,307 | 7.8% |

5.2 Di Semenanjung Malaysia, pendaratan pukat tunda bertambah dari 436,287 kepada 516,725 tan dengan kadar 18.4%, pukat jerut ikan dari 110,612 ke 124,308 tan (12.4%); dan pukat hanyut dari 50,523 ke 62,215 tan (23.1%). Sebaliknya pendaratan bagi bot pukat tangguk, pancing, bakul dan rampaian meleset masing-masing dari 11,587 ke 6,380 tan (44.9%); 22,145 ke 16,818 tan (24.1%); 32,072 ke 25,783 tan (19.6%) dan dari 23,687 ke 2,538 tan (89.3%). Jadual 5 menunjukkan pendaratan mengikut jenis perkakas.

Jadual 5: Pendaratan Ikan Marin mengikut Kumpulan Perkakas di Sem. Malaysia (tan metrik)

| Kumpulan Perkakas | 1989 | 1990 | % Perubahan |
|-------------------|----------------|----------------|-------------|
| Pukat Tunda | 436,287 | 516,725 | 18.4% |
| Pukat Jerut Ikan | 110,612 | 124,308 | 12.4% |
| Pukat Jerut Bilis | 30,023 | 30,745 | 2.4% |
| Pukat Tarik Lain | 19,160 | 18,138 | -5.3% |
| Pukat Hanyut | 50,523 | 62,215 | 23.1% |
| Pukat Tangguk | 11,587 | 6,380 | -44.9% |
| Bubu | 891 | 871 | -2.2% |
| Perangkap | 6,202 | 6,557 | 5.7% |
| Pancing | 22,145 | 16,818 | -24.1% |
| Pukat Bakul | 32,072 | 25,783 | -19.6% |
| Pukat Rentang | 889 | 1,380 | 55.2% |
| Pukat Surung | 2,024 | 3,125 | 54.4% |
| Memunggut | 782 | 4,320 | 452.4% |
| Rampaian | 23,687 | 2,538 | -89.3% |
| Jumlah | 746,884 | 819,903 | 9.8% |

- 5.3 Pendaratan bot pukat tunda laut dalam bertambah dua kali ganda sebanyak 107.4% daripada 33,357 tan ke 69,196 tan pada 1990. Pendaratan untuk bot-bot pukat tunda yang kecil juga bertambah dari 402,930 kepada 447,529 tan. Sementara pendaratan bagi pukat jerut laut dalam, hanya naik sebanyak 19.3% dari 19,891 tan kepada 23,731 tan.
- 5.4 Pendaratan ikan laut dibahagikan kepada 6 kategori utama, iaitu ikan gred I, gred II, gred III, udang, ikan baja dan siput. Ikan gred I, termasuk Bawal Tambak, Bawal Putih, Bawal Hitam, Kurau/Senangin/Senohong, Tenggiri, Kerapu, Remong/Kunyit-Kunyit/Tanda. Ikan gred II termasuk Terubok, Merah, Kaci, Cermin/Sagai/Cupak, Demudok/Rambai dan Siakap. Ikan Gred III termasuk Bilis, Sotong Biasa/Cumit- Cumit/Sotong Katak, Ketam, Ubur-Ubur dan lain-lain. Bagi tahun 1990, pendaratan ikan gred I naik sebanyak 10.3% (daripada 31,531 tan kepada 34,774 tan), ikan gred II naik 2.1% (daripada 16,652 kepada 16,998 tan), sementara ikan gred III bertambah sebanyak 8.0% (daripada 446,254 kepada 482,122 tan). Pendaratan udang merosot sebanyak 6.4% iaitu dari 112,510 tan kepada 105,326 tan. Ikan baja bertambah sebanyak 12.5% daripada 273,272 tan kepada 307,387 tan.
- 5.5 Untuk keseluruhan Malaysia, purata harga borong untuk ikan gred I merosot daripada \$5,710 setiap tan kepada \$5,453/tan, iaitu sebanyak 4.5%. Sebaliknya harga untuk ikan-ikan gred II dan udang naik masing-masing sebanyak 4.5% (daripada \$3,840 kepada \$4,013/tan) dan 21.5% (\$4,663 kepada \$5,666/tan). Purata harga borong untuk ikan gred III dan ikan baja tidak berubah iaitu masing-masing pada \$1,844/tan dan \$262/tan.
- 5.6 Purata harga runcit untuk semua kategori adalah lebih tinggi untuk 1990 berbanding dengan 1989. Harga ikan gred I bertambah sebanyak 10.8% daripada \$7,081 kepada \$7,844/tan sementara harga untuk gred II naik kepada

\$5,404 daripada \$5,134/tan iaitu penambahan sebanyak 5.3%. Harga untuk ikan gred III juga bertambah sebanyak 10.3% daripada \$2,421 kepada \$2,671/tan. Walaupun pendaratan untuk udang menurun, permintaan yang baik kemungkinan menyebabkan purata harga runcitnya naik sebanyak 35.9% daripada \$5,859 pada 1989 kepada \$7,962/tan pada 1990. Walaupun pendaratan bertambah untuk ikan baja dan siput, harga purata runcitnya masih bertambah sebanyak masing-masing 25.9% (\$259 kepada \$326/tan) dan 11.2% (\$1,914 kepada \$2,128/tan).

- 5.7 Jumlah nilai borong untuk pendaratan laut bertambah sebanyak 17.7% daripada \$1.666 billion kepada 1.961 billion. Pertumbuhan ini adalah disebabkan oleh pendaratan yang lebih pada tahun 1990 dan juga harga-harga yang lebih tinggi. Bagi ikan gred I, walaupun harganya lebih rendah, jumlah nilai bertambah sebanyak 20.3% daripada \$180.04 juta kepada \$216.63 juta akibat jumlah tangkapan yang lebih tinggi pada 1990. Nilai borong untuk ikan gred II juga bertambah sebanyak 6.7% (\$63.9 juta kepada \$68.2 juta) kerana kenaikan dalam tangkapan serta harga yang lebih tinggi pada 1990. Walaupun harga tidak berubah dengan nyata untuk ikan gred III, nilai borongnya bertambah sebanyak 9.4% (\$882.9 juta kepada \$900 juta) disebabkan pendaratan yang lebih tinggi. Nilai borong untuk udang naik sebanyak 31.5% daripada \$524.6 juta kepada \$690 juta pada 1990 disebabkan oleh harga yang lebih tinggi. Pada masa yang sama nilai ikan baja juga bertambah sebanyak 14.2% (\$70.9 juta kepada \$81 juta) akibat pendaratan yang lebih pada 1990. Jadual 6 menunjukkan perubahan-perubahan pada nilai borong dan nilai runcit untuk pendaratan dalam tahun 1989 dan 1990 di Malaysia.

**Jadual 6: Nilai Borong & Runcit Pendaratan Marin untuk Malaysia
1989 dan 1990**

| | Borong (\$/% Perubahan) | | | Runcit (\$/% perubahan) | | |
|---------------|-------------------------|------------------------|--------------|-------------------------|------------------------|--------------|
| | 1989 | 1990 | % Perubahan | 1989 | 1990 | % Perubahan |
| Ikan Gred 1 | 180,035,124 | 216,625,094 | 20.3% | 223,268,433 | 272,757,779 | 22.2% |
| Ikan Gred 2 | 63,945,206 | 68,198,286 | 6.7% | 85,486,191 | 91,856,920 | 7.5% |
| Ikan Gred 3 | 822,874,146 | 900,034,996 | 9.4% | 1,080,289,680 | 1,287,952,484 | 19.2% |
| Udang | 524,580,337 | 690,013,947 | 31.5% | 659,196,215 | 838,573,699 | 27.2% |
| Ikan Baja | 70,939,774 | 80,981,008 | 14.2% | 70,909,774 | 100,326,916 | 41.5% |
| Kerang | 3,446,521 | 4,723,943 | 37.1% | 4,349,435 | 9,999,736 | 129.9% |
| Jumlah | \$1,665,821,108 | \$1,960,577,274 | 17.7% | \$2,123,499,728 | \$2,601,467,534 | 22.5% |

6. TERNAKAIR

- 6.1 Ternakair meliputi semua aktiviti-aktiviti ternakan kolam/sangkar, ternakan ikan/udang, pengutipan kerang, dari kawasan semulajadi dan kawasan ternakan, penangkapan ikan dan udang diperairan umum dan juga bekas-bekas kolam lombong. Pada amnya industri ternakair di Malaysia di pecahkan kepada ternakan airtawar dan airpayau. Ternakan airtawar meliputi kolam airtawar, sangkar airtawar dan bekas lombong. Sementara itu, ternakan airpayau termasuk kolam airpayau, sangkar airpayau, kerang dan siput sudu.
- 6.2 Jumlah pengeluaran daripada ternakair pada 1990 ialah 52,303 tan, merosot sebanyak 1.5% daripada 53,119 tan pada tahun 1989. Pengeluaran untuk Semenanjung Malaysia turun sebanyak 8.3% daripada 46,307 tan kepada

42,444 tan. Bagaimanapun pertumbuhan sebanyak masing-masing 3.1% (212 tan kepada 219 tan) dan 46% (6,600 tan kepada 9,640 tan) dicatit untuk Sarawak dan Sabah. Adalah penting disebutkan disini bahawa kemerosotan di Semenanjung Malaysia disebabkan penurunan yang ketara dalam pengeluaran kerang. Pengeluaran yang lain semuanya bertambah jika dibanding dengan pengeluaran tahun lepas.

- 6.3 Selain daripada kemelesetan pengeluaran kerang, industri ternakair berkembang dengan pesat. Untuk Semenanjung Malaysia, bilangan kolam airtawar bertambah 20.0% dari 13,668 kepada 16,408, bilangan sangkar airtawar bertambah sebanyak 74.0% dari 984 kepada 1,649 manakala bilangan kolam bekas lombong tidak berubah. Bilangan kolam airpayau juga bertambah iaitu sebanyak 24.2% dari 1,298 unit ke 1,612 manakala bilangan sangkar airpayau pula naik sebanyak 21.9% dari 22,865 ke 27,874 unit. Jumlah kawasan untuk industri ternakair bertambah dengan nyata. Pertumbuhan yang tinggi adalah untuk sangkar airtawar sebanyak 55.4% dari 13,347 ke 21,413 meter persegi. Luas kawasan untuk kolam airtawar juga bertambah sebanyak 30.5% dari 2,309 kepada 3,015 ha. Luas kawasan untuk kolam bekas lombong cuma bertambah sebanyak 1.7% dari 630 ke 641 ha. Luas kawasan untuk ternakan airpayau naik sebanyak 7% (1,047 kepada 1,119 ha) untuk kolam dan 20.5% (207,678 ke 250,349 meter persegi) untuk sangkar. Kecuali untuk bekas lombong, bilangan penternak yang menceburi dalam industri ternakair bertambah. Jumlah penternak ialah 18,044 orang meningkat 15%. Bilangan penternak naik sebanyak 20.1% (9,064 ke 10,887) untuk kolam airtawar; 3.4% (496 ke 522) untuk sangkar airtawar; 51.6% (306 ke 464) untuk kolam airpayau dan 34.1% (575 ke 771) untuk sangkar airpayau. Bilangan penternak yang terlibat dengan ternakan kolam bekas lombong menurun sebanyak 4.6% dari 327 ke 312.

64 Dari segi pengeluaran, didapati bahawa industri ternakair telah berkembang dengan memuaskan. Pengeluaran kolam airtawar untuk Semenanjung Malaysia bertambah sebanyak 16.9% dari 2,479 ke 2,899. Walaupun bilangan dan luas kawasan kolam bekas lombong tidak berubah dengan nyata, pengeluarannya bertambah sebanyak 27.9% dari 707 ke 905 tan. Pengeluaran sangkar airtawar berlipat ganda empat kali (263.4%) dari cuma 141 tan pada 1989 ke 516 tan dalam tahun 1990. Begitu juga pengeluaran airpayau yang bertambah sebanyak 58.3% dari 1,386 ke 2,195 tan untuk kolam dan 8.4% dari 1,895 ke 2,054 tan. Pengeluaran kupang cuma naik sebanyak 2.0% dari 1,551 ke 1,582 tan. Walau bagaimanapun pengeluaran kerang merosot sebanyak 15.3% tan dari 38,146 tan ke 32,292 tan. Memandangkan pengeluaran kerang merupakan bahagian besar pengeluaran ternakair kemerosotannya telah mempengaruhi jumlah pengeluaran ternakair. Jadual 7 dan Jadual 8 menghuraikan pengeluaran/kawasan yang terlibat dalam sektor ini.

Jadual 7: Pengeluaran Akuakultur di Sem. Malaysia Mengikut Jenis Ternakan.
(tan metrik) - 1989 dan 1990

| Tahun | Airtawar | | | Airpayau | | | | Jumlah |
|-------------|----------|-----------|---------|----------|----------|-----------|----------|-----------|
| | Kolam | B.lombong | Sangkar | Kolam | Sangkar | Kerang | Kupang | |
| 1989 | 2,479.40 | 707.57 | 141.32 | 1,386.39 | 1,895.08 | 38,146.12 | 1,550.76 | 46,306.64 |
| 1990 | 2,899.59 | 904.69 | 516.25 | 2,194.84 | 2,054.52 | 32,291.99 | 1,582.03 | 42,443.91 |
| % Perubahan | 16.9% | 27.9% | 265.3% | 58.3% | 8.4% | -15.3% | 2.0% | -8.3% |

Jadual 8: Kawasan untuk Pelbagai Sistem Akuakultur di Malaysia (1990)

| Sistem Akuakultur | Sem. M'sia | Sarawak | Sabah | Jumlah |
|----------------------|------------|---------|----------|------------|
| Airtawar | | | | |
| Kolam (ha) | 3,014.74 | 210.78 | 1,023.00 | 4,248.52 |
| Sangkar (m. persegi) | 21,412.86 | 0.00 | 0.00 | 21,412.86 |
| Bekas Lombong (ha) | 640.82 | 0.00 | 0.00 | 640.82 |
| Airpayau | | | | |
| Kolam (ha) | 1,119.63 | 0.00 | 432.31 | 1,551.94 |
| Sangkar (m. persegi) | 243,011.26 | 0.00 | 0.00 | 243,011.26 |
| Kerang (ha) | 5,541.57 | 0.00 | 0.00 | 5,541.57 |
| Kupang (m.persegi) | 55,454.77 | 0.00 | 0.00 | 55,454.77 |

7. Ikan Hiasan

Pengeluaran ikan hiasan cuma berkembang di beberapa negeri sahaja iaitu P.Pinang, Perak, Selangor, Johor dan mulai tahun ini di Melaka. Jumlah pengeluaran pada keseluruhannya menurun dari 71 juta ekor kepada 70 juta ekor iaitu meleset sebanyak 1.3%. Pengeluaran di P.Pinang berkembang dengan pesat dari cuma 272,682 ekor kepada 3.6 juta berlipat ganda sebanyak 13 kali. Pengeluaran di Johor juga meningkat sebanyak 112% dari cuma 31 juta ke 65 juta ekor. Negeri Melaka baru muncul dalam industri ini dan untuk tahun 1990 mencatatkan pengeluaran sebanyak 20,300 ekor. Pengeluaran di Selangor dan Perak meleset masing-masing sebanyak 45.8 (1.6 juta kepada 866,736 ekor) dan 97.84% (38,569,860 ke 831,190 ekor). Nilai pengeluaran ikan hiasan merosot sebanyak 44.7% dari \$16 juta kepada \$9 juta, mungkin kerana penternak lebih berhati-hati dalam memberi maklumat berkenaan.

THE STATUS OF FISHERIES SECTOR IN MALAYSIA 1990

1. Introduction

- 1.1 The fisheries sector of Malaysia has seen significant changes during the last couple of years. The marine fish production target has reached the highest level at 951,307 tonnes. It has been the objective of the government that the landings of local boats should be increased to meet the local demand .
- 1.2 There was also a corresponding increase in the value of fish, both in terms of wholesale and retail prices. The value of marine landings was some \$1,960 million (wholesale price). It contributed about 2.6% to the GDP.
- 1.3 The landings of the deep sea vessels have also registered an increase over the last three years, from 58,313 tonnes in 1988 to 92,927 tonnes in 1990, contributing about 9.8% of the total marine landings. At the same time the overall number of licensed deep sea fishing boats increased from 460 units in 1988 to 586 units in 1990.

2. Employment

- 2.1 There were a total of 88,494 persons engaged in the marine fisheries sector against 93,545 in 1989 thus decreasing by 5.7%. The decline in the number of fishermen occurred in Peninsular Malaysia and Sabah by 4.4% and 11.9% respectively, whereas the number more or less remained the same for Sarawak. Reduction in Peninsular Malaysia were mainly for fish purse seiners (9.1%), anchovy purse seiners (11.5%), gill- netters (5.4%) lift netters (11.2%), portable traps (9.8%), bag netters (10.5%), push netters (20.45%), barrier netters (6.33%)

and shellfish collection (20.07%). The only significant increase in fishermen occurred for miscellaneous gears (33.55%) and apart from that, the rest changed only marginally (Trawlers, +1.6%; hooks and lines +2.65% and fish carriers, +5.4%). Table 1 shows the number of fishermen by areas.

Table 1: Number of Fishermen in Malaysia (1989 - 1990)

| Area | 1989 | 1990 | % Change |
|---------------------|--------|--------|----------|
| Peninsular Malaysia | 62,580 | 59,801 | -4.44% |
| Sarawak | 12,358 | 12,197 | -1.30% |
| Sabah | 18,250 | 16,082 | -11.88% |
| Labuan | 357 | 414 | 15.97% |
| Total | 93,545 | 88,494 | -5.40% |

2.2 In Sabah, there was a sharp drop in the number of fishermen working on trawlers (27.7%), fish purse seiners (38.1%), lift nets (30.9%), stationary traps (23.1%) and gill nets (10.1%). On the other hand the number of fishermen increased by 114.6% for portable traps and 25.9% for hook and lines. The changes in Sarawak occurred for trawlers (down 8.2%), bag nets (down 33.9%), push net (down 43.21%); fish purse seiners (up 17%); lift net (up 90.91%); stationary traps (up 189.9%); portable traps (up 64.18%); hooks and lines (up 122.7%); with the rest remaining more or less the same.

3. Fishing Boats

3.1 The number of fishing boats licensed dropped slightly by 1.1% from 39,970 units in 1989 to 39,541 units. The units decreased by 1.4% from 23,459 to 23,134 units for Peninsular Malaysia, 1.4% for Sarawak, from 7,165 to 7066 units, 3.4% for Labuan from 146 to 141 units and remained the same for Sabah at 9,200 units.

3.2 In view of the development in the deep-sea fishing sub- sector, it is important to note that boats above 70 GRT actually increased from 565 units to 586 units by 3.7% for the whole of Malaysia. In Peninsular Malaysia there were 424 units, Sarawak 116, Sabah 44, and in Labuan 2 units. Table 2 shows that the number of deep-sea boats (70 GRT and above) actually increased whereas the number of other fishing units more or less stabilized.

Table 2: Number of boats licensed (above 70 GRT) and (below 70 GRT) in Pen. Malaysia.

| Year | BELOW 70 GRT | 70 GRT AND ABOVE |
|------|--------------|------------------|
| 1984 | 25,589 | 84 |
| 1985 | 23,236 | 135 |
| 1986 | 22,321 | 155 |
| 1987 | 21,880 | 258 |
| 1988 | 21,025 | 316 |
| 1989 | 23,048 | 411 |
| 1990 | 22,710 | 424 |

3.3 According to gear types, the number of licences issued for trawlers was 7,011 units, decreasing by 1.8%, purse seiners 775 units by 5.6%, anchovy purse seiners 159 units by 8.6%, scoop nets 83 units by 10.8%, and miscellaneous 1,479 units by 6.6%. On the other hand, the number of licences issued for stationary traps and portable traps increased by 45.2% and 13.5% i.e 485 units and 707 units respectively. For the rest of the gears, licences issued more or less remained the same fluctuating by less than 1%.

4. Fishing Gears

4.1 The total number of fishing gears licensed in Malaysia for 1990 was 34,457 units as against 34,257 units in 1989, increasing by 0.6%. However the numbers reduced for Peninsular Malaysia by 1.4% (from 23,459 to 23,134 units); Sarawak by 1.9% (from 7,955 to 7,803) and Labuan by 9.6% (156 to 141 units). Sabah on the other hand registered an increase by 25.8% from 2,687 units in 1989 to 3,379 units in 1990. Table 3 shows the licences issued according to gear groups.

Table 3: Number of Fishing Gears licensed in Malaysia.

| Gears | 1989 | 1990 | % Change |
|----------------------|---------------|---------------|--------------|
| Trawlers | 6,384 | 6,257 | -1.99% |
| Fish Purse Seines | 752 | 719 | -4.39% |
| Anchovy Purse Seines | 174 | 159 | -8.62% |
| Other seines | 1,025 | 981 | -4.29% |
| Gill/Drift Nets | 18,883 | 19,158 | 1.46% |
| Lift Nets | 367 | 509 | 38.69% |
| Stationary Traps | 235 | 367 | 56.17% |
| Portable Traps | 712 | 762 | 7.02% |
| Hooks & Lines | 2,912 | 2,828 | -2.88% |
| Bag Nets | 1,398 | 1,244 | -11.02% |
| Barrier Nets | 447 | 483 | 8.05% |
| Scoop Nets | 152 | 130 | -14.47% |
| Shellfish | 215 | 196 | -8.84% |
| Miscellaneous | 601 | 664 | 10.48% |
| Total | 34,257 | 34,457 | 0.58% |

5. Marine Landings

5.1 The total marine landings grew by 7.8% from 882,492 tonnes in 1989 to 951,307 tonnes in 1990. Peninsular Malaysia recorded a growth of 9.8%, Labuan 7.1% and Sabah 1.7%, however the landings dropped by 6.5% for Sarawak. By areas in Peninsular Malaysia, landings in the east coast increased by 20.1%; Pahang

registered the highest growth of 53.3%, followed by Terengganu 23.4%. Landings declined slightly for Kelantan and East Johore i.e by 4.3% and 2.3% respectively. Landings in the west coast of Peninsular Malaysia increased marginally by 4.3% with Negeri Sembilan improving by 57.9%, Penang 35.4%, Malacca 18.8%, Kedah 14.3%, Perak 10.1% and Perlis by 9.1%. However landings in Selangor and West Johore deteriorated by as much as 57.9% and 10.8% respectively. Table 4 shows the landings of marine fish by states.

**Table 4: Landings of Marine Captured Fisheries (in M.tonnes)
Malaysia, 1989 and 1990**

| STATES | 1989 | 1990 | % Change |
|--------------------------|----------------|----------------|--------------|
| Perlis | 42,360 | 46,206 | 9.1% |
| Kedah | 75,615 | 86,408 | 14.3% |
| Penang | 38,624 | 52,278 | 35.4% |
| Perak | 198,974 | 219,044 | 10.1% |
| Selangor | 112,646 | 86,966 | -22.8% |
| N.Sembilan | 221 | 349 | 57.9% |
| Melaka | 1,989 | 2,363 | 18.8% |
| W.Johore | 18,905 | 16,857 | -10.8% |
| Total W.Coast | 489,334 | 510,471 | 4.3% |
| Kelantan | 32,982 | 31,557 | -4.3% |
| Terengganu | 78,815 | 97,236 | 23.4% |
| Pahang | 68,730 | 105,370 | 53.3% |
| E. Johore | 77,023 | 75,269 | -2.3% |
| Total E. Coast | 257,550 | 309,432 | 20.1% |
| Total Pen. M'sia. | 746,884 | 819,903 | 9.8% |
| Sabah | 44,000 | 44,760 | 1.7% |
| Sarawak | 84,356 | 78,878 | -6.5% |
| Labuan | 7,252 | 7,766 | 7.1% |
| Grand Total | 882,492 | 951,307 | 7.8% |

5.2 In Peninsular Malaysia there were increases in the landings of trawlers from 436,287 tonnes to 516,725 tonnes by 18.4%, fish purse-seiners from 110,612 tonnes to 124,308 tonnes by 12.4% and gill-net from 50,523 tonnes to 62,215 tonnes by 23.1%. On the other hand, landings dropped significantly for lift nets from 11,587 tonnes to 6,380 tonnes by 44.9%, hook and lines from 22,145 tonnes to 16,818 tonnes by 24.1%, bag nets from 32,072 tonnes to 25,783 tonnes by 19.6% and miscellaneous from 23,687 tonnes to 2,538 tonnes by 89.3%. Table 5 shows the landings by gear groups in Peninsular Malaysia.

Table 5: Landings of Marine Catch by Gear Groups in Peninsular Malaysia.
(M.tonnes)

| Gears | 1989 | 1990 | % Change |
|-----------------------|----------------|----------------|-------------|
| Trawlers | 436,287 | 516,725 | 18.4% |
| Fish Purse Seines | 110,612 | 124,308 | 12.4% |
| Anchovy Seine | 30,023 | 30,745 | 2.4% |
| Other Seines | 19,160 | 18,138 | -5.3% |
| Drift/Gill Nets | 50,523 | 62,215 | 23.1% |
| Lift Nets | 11,587 | 6,380 | -44.9% |
| Stationary Traps | 891 | 871 | -2.2% |
| Portable Traps | 6,202 | 6,557 | 5.7% |
| Hooks & Lines | 22,145 | 16,818 | -24.1% |
| Bag Nets | 32,072 | 25,783 | -19.6% |
| Barrier Nets | 889 | 1,380 | 55.2% |
| Push/Scoop Nets | 2,024 | 3,125 | 54.4% |
| Shellfish Collections | 782 | 4,320 | 452.4% |
| Miscellaneous Gears | 23,687 | 2,538 | -89.3% |
| Total | 746,884 | 819,903 | 9.8% |

- 5.3 The landings of deep-sea trawlers shot up by 107.4% from 33,357 tonnes in 1989 to 69,196 tonnes in 1990. Landing of smaller trawlers also increased from 402,930 to 447,529 tonnes. On the other hand, landings of deep-sea purse seiners rose only by 19.3% from 19,891 tonnes to 23,731 tonnes.
- 5.4 The landings are grouped into six main categories, namely grade I fishes, grade II fishes, grade III fishes, prawns, trash fish, and shellfishes. Grade I fishes, include Chinese Pomfret, Silver Pomfret, Black Pomfret, Thread fins, Spanish mackerel, Groupers and Snappers. Grade II fishes include Longtail Shads, other Shads, Red Snappers, Sweetlip, Horse Mackerel and Sea Perch. Grade III fishes include Anchovies, Squids/cuttlefish, Crabs, Jelly fishes and others. For 1990, the landings of grade I fishes increased by 10.3% (from 31,531 tonnes to 34,774 tonnes), grade II fishes increased by 2.1% (from 16,652 tonnes to 16,998 tonnes), whereas grade III fishes increased by 8.0% (from 446,254 tonnes to 482,122 tonnes). Landings of prawns dropped by 6.4% from 112,510 tonnes to 105,326 tonnes. Trash fish/manure fish which includes commercially low-value fish and juveniles of commercial fish increased by 12.5% from 273,272 tonnes to 307,387 tonnes.
- 5.5 For the whole of Malaysia, the average wholesale prices of grade I fishes decreased from \$5,710 to \$5,453 per tonne (by 4.5 %). On the other hand the prices for grade II fishes and prawns increased by 4.5% (from \$3,840 to \$4,013/tonne) and 21.5% (\$4,663 to \$5,666/tonne) respectively. Average wholesale prices for grade III fishes and trash fish were stable at about \$1,844/tonne and \$262/tonne respectively.
- 5.6 The average retail prices for all categories were higher for 1990 as compared to 1989. Prices for grade I fishes increased by 10.8% from \$7,081 to \$7,844/tonne whereas prices for grade II moved higher to \$5,404/tonne from \$5,134/tonne

increasing by 5.3%. Prices for grade III fishes also improved by 10.3% from \$2,421/tonne to \$2,671/tonne. Probably due to lower landings of prawns and good demand its average retail price also went up by 35.9% from \$5,859/tonne in 1989 to \$7,962/tonne in 1990. In spite of the significant increase in landings of trash fish and shellfish, its average retail price still improved by 25.9% from \$259 to \$326/tonne and 11.2% from \$1,914 to \$2,128/tonne respectively.

5.7 The total wholesale value of the marine landings grew by 17.1% from \$1.666 billion in 1989 to \$1.961 billion. The growth was due to higher volume traded and also due to higher prices. For grade I fishes, in spite of its lower price, the total value increased by 20.3% from \$180.04 million to \$216.63 million as the result of the higher total catch in 1990. Wholesale value of grade II fishes also increased by 6.7% from \$63.9 million to \$68.2 million affected by the slight increased in catch and the better prices in 1990. Even though the prices remained about the same for the grade III fishes, the wholesale value improved by 9.4% from \$882.9 million to \$900 million also due to increased landings (8.0%). Wholesale value of prawns (about 41% of the total) shot up by 31.5% from \$524.6 million to \$690 million in 1990 mainly due to higher price.. The wholesale value of trash fish also increased by 14.2% from \$70.9 million to \$81.0 million mainly due to the higher catch in 1990. Table 6 shows the changes in wholesale and retail values of landings in 1989 and 1990 for Malaysia.

**Table 6: Wholesale/Retail Value of Marine Landings for Malaysia
1989 and 1990**

| | Wholesale | | | Retail | | |
|----------------|------------------------|------------------------|---------------|------------------------|------------------------|---------------|
| | 1989 | 1990 | (\$ % Change) | 1989 | 1990 | (\$ % Change) |
| Grade 1 Fishes | 180,035,124 | 216,625,094 | 20.3% | 223,268,433 | 272,757,779 | 22.2% |
| Grade 2 Fishes | 63,945,206 | 68,198,286 | 6.7% | 85,486,191 | 91,856,920 | 7.5% |
| Grade 3 Fishes | 822,874,146 | 900,034,996 | 9.4% | 1,080,289,680 | 1,287,952,484 | 19.2% |
| Prawns | 524,580,337 | 690,013,947 | 31.5% | 659,196,215 | 838,573,699 | 27.2% |
| Trash Fish | 70,939,774 | 80,981,008 | 14.2% | 70,909,774 | 100,326,916 | 41.5% |
| Shellfish | 3,446,521 | 4,723,943 | 37.1% | 4,349,435 | 9,999,736 | 129.9% |
| Total | \$1,665,821,108 | \$1,960,577,274 | 17.7% | \$2,123,499,728 | \$2,601,467,534 | 22.5% |

6. Aquaculture

- 6.1 Aquaculture covers all activities of pond/cages culture, fish/prawn culture, collection of cockles from natural on artificial beds, fishing of fish and prawns in public water bodies and ex-mining pools. Basically the aquaculture industry in Malaysia are categorized into freshwater and brackishwater culture. Freshwater culture consisted of freshwater ponds, freshwater cages and ex-mining pools cultures. On the other hand brackishwater culture includes, brackish water ponds, brackish water cages, cockle and mussels.
- 6.2 The total production from aquaculture in 1990 was at 52,303 tonnes dipping by 1.5% from 53,119 tonnes in 1989. Production of Peninsular Malaysia declined by 8.3% from 46,307 tonnes to 42,444 tonnes. However a growth of 3.1% (212 tonnes to 219 tonnes) and 46% (6,600 tonnes to 9,640 tonnes) were recorded for Sarawak and Sabah respectively. It is important to note here that the decline in Peninsular Malaysia was the result of a sharp drop in cockle production, otherwise other productions rose significantly.
- 6.3 Apart from cockle production there was an overall growth in the aquaculture industry. For Peninsular Malaysia, the number of freshwater ponds increased by 20.0% from 13,668 to 16,408 units, the number of freshwater cages went up by 74.0% from 948 to 1,649 units whereas the number of freshwater ex-mining ponds did not change significantly. The number of brackish ponds also went up 24.2% from 1,298 units to 1,612 units and the number of brackish water cages grew 21.9% from 22,865 to 27,874 units. The areas under aquaculture expanded significantly with fresh water cages increasing by 55.4% from 13,346 to 21,413 square meters. Areas cultivated for fresh water ponds went up by 30.5% from 2,309 to 3,015 ha, however areas involved in fresh water ex-mining pools edged up by only 0.2% from 630 to 641 ha. Brackish water culture also

improved remarkably with its pond culture increasing in areas by 7.0% (1,047 to 1,119 ha) and 20.5% for brackish water cages from 207,678 to 250,349 square meters. Except for fresh water ex-mining pool, the number of aquaculturists in 1990 increased in numbers. The total number of culturists was 18,044 increased by 15.1% from 15,680 in 1989. The numbers increased by 20.1% from 9,064 to 10,887 for fresh water ponds, 3.4% from 495 to 522 for fresh water cages; 51.6% from 306 to 464 for brackish water ponds and 34.1% from 575 to 771 for brackish water cages. The number of culturist for fresh water ex-mining pools dipped by 4.6% from 327 to 312.

6.4 Production of fresh water ponds for Peninsular Malaysia increased by 16.9% from 2,479 tonnes to 2,899 tonnes. Even though the number of ponds and culturists for ex-mining pool did not increased significantly, the production increased by 27.9% from 707.57 tonnes to 904.69 tonnes. Production of fresh water cages shot up 4 times by 263.4% from 141 tonnes to 516 tonnes. Satisfactory growth were also recorded for brackish water culture with brackish water ponds improving by 58.3% from 1,386 tonnes to 2,195 tonnes and brackish water cages by 8.4% from 1,895 tonnes to 2,054 tonnes. Production of mussels managed to edged up by only 2.0% from 1,551 to 1,582 tonnes. However the production of cockles reduced by 15.3% to 32,292 tonnes from 38,146 tonnes in 1989. In view that the production of cockles formed the main bulk of aquaculture production, this significant decrease affected the overall production of the aquaculture industry. Table 7 shows the aquaculture production and Table 8 shows the areas for the various aquaculture systems in Malaysia.

Table 7: Production of Aquaculture in Peninsular Malaysia by Culture
(in M.tonnes) - 1989 - 1990

| Year | Freshwater | | | Brackish Water | | | | Total |
|----------|------------|----------|--------|----------------|----------|-----------|----------|-----------|
| | Ponds | Ex-Pools | Cages | Ponds | Cages | Cockles | Mussels | |
| 1989 | 2,479.40 | 707.57 | 141.32 | 1,386.39 | 1,895.08 | 38,146.12 | 1,550.76 | 46,306.64 |
| 1990 | 2,899.59 | 904.69 | 516.25 | 2,194.84 | 2,054.52 | 32,291.99 | 1,582.03 | 42,443.91 |
| % Change | 16.9% | 27.9% | 265.3% | 58.3% | 8.4% | -15.3% | 2.0% | -8.3% |

Table 8 : Areas for the various aquaculture in Malaysia - 1990

| Aquaculture Systems | Pen. M'sia | Sarawak | Sabah | Total |
|----------------------------|-------------------|----------------|--------------|--------------|
| Fresh Water | | | | |
| Ponds (ha) | 3,014.74 | 210.78 | 1,023.00 | 4,248.52 |
| Cages (meter sq.) | 21,412.86 | 0.00 | 0.00 | 21,412.86 |
| Ex-Mining Pools (ha) | 640.82 | 0.00 | 0.00 | 640.82 |
| Brackish Water | | | | |
| Ponds (ha) | 1,119.63 | 0.00 | 432.31 | 1,551.94 |
| Cages (meter sq.) | 243,011.26 | 0.00 | 0.00 | 243,011.26 |
| Cockles (ha) | 5,541.57 | 0.00 | 0.00 | 5,541.57 |
| Mussels (meter sq.) | 55,454.77 | 0.00 | 0.00 | 55,454.77 |

7. Ornamental Fish

Production of ornamental fish was still limited to a few states such as Penang, Perak, Selangor, Johor and starting this year Malacca.. The total production dropped from about 71 million to 70 million pieces declining by 1.3%. Production in Penang expanded from 272,682 to 3,594,316 pieces multiplying by 13 times. Production in Johor also increased by 112% from only 30,522,911 to 64,724,824 pieces. Malacca started to produce 20,300 pieces in 1990. Production in Selangor and Perak dipped by 45.7% from 1.6 million to 866,736 pieces and 97.8% from 38,569,860 to 831,190 pieces. The production value dropped by 44.7% from \$16.3 million to \$9.0 million most probably due to under declaration by the culturists.