



# Statistical Summary

## An Overview of Fishery Sector for The South China Sea Area 1997

### 1. The Fisheries Sector

As the focus on fisheries as a secure source of food protein in the region becomes more sharply defined the need for statistical measurement is now much greater. There are many changes proposed for the future of the industry and the effect of those changes will be reflected in the overall aquatic resource production of the region. Such statistics will constitute the ultimate guide to the efficacy of the remedial measures that are adopted to halt the decline in naturally occurring resources.

In common with previous bulletins the fisheries of the region are reported as marine fisheries, inland fisheries and aquaculture; the marine fisheries are further defined into small-scale (coastal or near shore fisheries, however, definitions of this differ) and large-scale (also referred to as offshore and deep sea) fisheries. The figures are reported both in metric tons and in total value in US\$. In most recent thinking, because of its less obscure environment and ease of management, aquaculture is assuming a greater importance in the drive toward sustainable protein from aquatic sources while marine fisheries focus upon coastal and resource management rather than fishing development *per se*. However, there is still heavy exploitation of marine resources in the region.

During 1997 a total quantity of 15,549,048 MT was taken valued at US\$ 9,906,279 million, which compared with 1996 represents an increase in quantity of approximately 1.8%, but a decrease in revenue. Marine fishery production in 1997 featured a modest increase of around 357,110 MT, but aquaculture shows a decrease both in quantity and value of 149,495 MT and over US\$1 million, respectively, compared to 1996. Inland fisheries production for this reporting period shows only a tiny increase of 59,676 MT representing a decrease in revenue of US\$ 13,472.

In common with previous years and reflecting the differing size of market demand, Indonesia returned the highest production figures at 4,579,766 MT with Thailand at 3,384,400 MT a close second in quantity. In descending order comes the Philippines with 2,766,507 MT, Vietnam produced 1,570,000 MT, followed by Malaysia with 1,280,907 MT. Myanmar landed 922,000 MT, and Taiwan took 559,524 MT, Cambodia had 274,549 MT, with Hong Kong consuming 194,026 MT. The two countries with the lowest catch were Singapore with 13,529 MT and lastly Brunei Darussalam with 3,840 MT. Total production since 1993 shows only a very slowly increasing trend, the increase in 1997 from 1993 being 2,659,771 MT. The average yearly increase shows a figure of 531,954 MT.

In terms of value, figures are not available from Indonesia, Myanmar and Vietnam. With three countries not reporting the regional picture is not clear, however, of those countries who reported and in common with previous years Thailand led the way with  $3,451,150 \times 10^3$  US\$ followed by the Philippines with  $2,738,750 \times 10^3$  US\$. Again in descending order Taiwan earned  $1,556,889 \times 10^3$  US\$, Hong Kong reported  $318,781 \times 10^3$  US\$, Cambodia earned  $219,639 \times 10^3$  US\$, Singapore received  $31,739 \times 10^3$  US\$ and lastly Brunei Darussalam earned  $7,513 \times 10^3$  US\$. As four countries did not report the overall figures representing total value the figures are distorted.

In Thailand, the average reported value per unit metric ton in 1997 is 1,020 US\$, whereas in 1993 the average value was reported to be 913 US\$ per unit ton. This represents an increasing yearly trend of 20 US\$ a ton, this is an approximate average of 2% increase yearly based upon the 1997 figures. The reported figures from the Philippines show a figure of 990 US\$ per unit ton in 1997 while the figures for 1993 show an average of 985 US\$ per unit ton. Over a five year span this shows an increase in value of 5 US\$ per unit ton.

## **2. Marine Fisheries (in quantity and landed value)**

In 1997, marine fisheries contributed some 74% or 11,382,525 MT of total fisheries production. This represents an increase of 3% over 1996. The total value in relation to the total production value is 56% or  $5,595,585 \times 10^3$  US\$. Although individual countries have all reported production figures value figures for three countries are not available. Thus, in terms of production the picture is viable, but in terms of value the overall figures are distorted. In terms of production, Indonesia ranks first with 3,612,961 MT representing almost 32% of the total, no data is available for value. A close second was Thailand with 2,679,500 MT or 24% of total production, the value data for Thailand is  $1,497,274 \times 10^3$  US\$ or 27% of the whole. The Philippines was placed third with a production of 1,649,378 MT or 14% of the total. The value to the Philippines was  $1,736,372 \times 10^3$  US\$ representing 31% of the total. Malaysia landed 1,168,973 MT or 10%. The value to Malaysia was  $1,338,182 \times 10^3$  US\$ or 24% of the whole. Next in line was Vietnam with 1,078,000 MT or 9% of the total production. The value to Vietnam was not reported. Taiwan took 288,973 MT in marine fisheries, which is 2.5% of the whole. The reported value for Taiwan was  $688,829 \times 10^3$  US\$ being 12% of the overall total. Hong Kong was next with 186,000 MT or 1.6%, this had a value of  $281,581 \times 10^3$  US\$ at 5% of the total value. The Cambodian catch was 29,800 MT, which is 0.26%, the value was  $23,840 \times 10^3$  US\$ or 0.43%. Singapore landed 9,250 MT or 0.08% was valued at  $23,013 \times 10^3$  US\$ or 0.41%. Last on the list is Brunei Darussalam landing 3,690 MT, 0.032% valued at  $6,494 \times 10^3$  US\$, which is 0.12% of the total reported value.

The period 1993 to 1997 saw an increase in production of 1,874,898 MT showing a landed value of  $694,492 \times 10^3$  US\$, an increase of 14.24% of total value over the period. During the same period Indonesia increased production by 726,672 MT, which in value is not reported. The catch for Thailand in 1997 decreased from the 1993 figures by 72,986 MT, but the value increased by  $69,441 \times 10^3$  US\$, this is an increase of 4.86%. The Philippines data shows an increase of 21,828 MT in 1997 relative to 1993. The value increase was  $328,485 \times 10^3$  US\$ or 23.3% in terms of 1997 value. Malaysia increased production in 1997 relative to 1993 by some 121,623 MT, the value also increased by  $412,652 \times 10^3$  US\$ or 44.6% relative to 1993. Vietnam, while not reporting value, increased production by 35% over 1993 by landing 279,943 MT more. Taiwan decreased their catch in 1997 by 36,939 MT relative to 1993, the value

also decreased by some  $91,289 \times 10^3$  US\$ a percentage decrease of 11.7% relative to 1993. Hong Kong also decreased their catch by 32,176 MT in 1997 relative to 1993, the reported value also decreased by  $22,567 \times 10^3$  US\$ or 7.4% of that of 1993. Cambodia landed less catch in 1997 compared to 1993 by some 3,300 MT. The reported value also decreased by  $2,640 \times 10^3$  US\$ or 10% of that of 1993. Singapore also recorded less catch in 1997 compared to 1993, but only by 29 MT. However, the reported value increased by  $5,996 \times 10^3$  US\$, an increase over 1993 of 35.2%. The last reporting country Brunei Darussalam decreased both catch and value by 1,795 MT and by  $8,226 \times 10^3$  US\$. These are 32.7 and 55.9%, respectively in respect of the 1993 data.

In regional terms the total of species landings show that the Jacks, mullets and sauries group were most heavily fished at 1,541,556 MT (13.54% of the regional total of fish landed). Round scads formed the largest catch at 659,285 MT (42.8% of the group total) this is followed with 256,385 MT (16.6% of the group total) of Selar scads. The next most heavily fished categories are the Herrings, sardines and anchovies group at 1,334,580 MT (11.7% of the regional fish total). In this group, the most heavily caught fish were the Sardines at 805,369 MT (60.3% of the group total) followed by Anchovies at 444,097 MT (33.3% of the group). Tunas formed the next most heavily fished group with 1,287,412 MT (11.3% of the regional total fish) with the Eastern Little Tuna as the most heavily exploited at 302,374 MT (23.5% of the Tunas group). The Eastern little tuna was closely followed by the take of Skipjack at 298,765 MT (23.2% of the group). Red fishes, basses and congers as a group featured with a total catch of 1,271,679 MT (11.2% of the regional total catch) with the Threadfin breams being the most heavily exploited at 199,347 (15.7% of the group). Another major group of species landed was the Mackerels with a regional total of 694,905 MT or 6.1% of the whole. Indian mackerels at 385,664 MT and Indo-pacific mackerel at 231,106 MT (being 55.5 and 33.3% of the group total, respectively). Trash fish formed 10.5% of the regional total catch at 1,196,477 MT. Miscellaneous fish was landed at 702,917 MT (6.2% of the regional total catch). In the Crustaceans group with landings of 556,470 MT, Other prawns formed the greatest total at 258,170 MT and Penaeid prawns at 133,381 MT were in the majority forming 46.4 and 24% of the group, respectively. Of the Crabs only the Swimming crabs featured to any extent at 96,874 MT (17.4% of the Crustaceans group).

The regional breakdown and analysis by value is not fully reported with Brunei, Cambodia, Indonesia, Malaysia, Myanmar and Vietnam failing to report value figures. However, the indication is Tiger Prawns carried the highest value with Squids, Round scads, Other prawns, Sardines, Miscellaneous fish, Indo-Pacific mackerel and Skipjack following.

From the breakdown on species, Indonesia led the way with a marine catch of 728,787 MT. This is 56.6% of the regional total of Tunas caught and represents 20.2% of the total Indonesian catch figures of all categories. Of the various species of Tunas, the Eastern Little Tuna formed the greatest proportion at 212,511 MT (29.2% of the total Tunas). The next greatest catch was Skipjack at 187,206 MT (25.7%) and thirdly, Yellowfin and Bullet tuna returned exactly similar figures at 116,214 MT (15.9%). Other marine fish catches were reported as 647,450 MT for Jacks, mullets and sauries with Round scads at 276,924 MT representing 42.8% of that species group with 125,504 MT of Selar scads (19.4%). Red fishes, basses and conger etc. the catch was 482,639 MT (37.9% of the regional total). The Herrings, sardines and anchovies group 531,508 MT (39.8% of the regional total) were led by the Sardines catch at 295,550 MT (55.6% of the species group total). Two other notable catch levels were Mackerels and Crustaceans at 256,635 MT (36.9% of the regional catch total) and 238,521 MT (42.9% of the region's total). The major

proportion of crustaceans were Penaeid prawns at 86,512 MT (36.3% of the national total) and other shrimp species at 95,790 MT (40.2%). Miscellaneous marine fish accounted for landings of 433,415 MT (12% of the total fish catch for Indonesia). Indonesia also harvested by far the greatest quantity of Miscellaneous aquatic plants (Seaweeds) at 125,979 MT, which is 99.95% of the reported regional total.

The nation with the next highest catch was Thailand at 2,679,492 MT (23.5% of the regional total catch) with the Herrings, sardines and anchovies group making up the greatest proportion at 370,592 MT (13.8% of the total national catch). In this group Sardines led at 202,792 MT (54.7% of the group national total) next were Anchovies 157,341 MT (42.5% of the national total). By far the greatest catch of all was trash fish at 822,110 MT, which is 30.7% of the overall national catch. Thailand led the region in the landing of Molluscs with 227,978 MT representing 39.1% of the regional total. Mackerel at 198,883 MT with Indo-pacific Mackerel forming by far the greatest proportion at 138,621 MT (69.7% of the group national catch). In Thailand, Red fishes, basses and congers represented a total catch of 302,739 MT (23.8% of the regional total) of these species the greatest proportion were Lizard fish at 71,315 MT, or 23.6% of the national catch of these species.

The third most productive nation was the Philippines with a total production of 1,649,380 MT (14.5% of the whole). The landing were predominantly in the Herrings, sardines and anchovies group with landings of 396,480 MT (29.7% of the regional total), this figure is closely matched by the landings of fish in the tuna group 335,192 MT, or 26% of the regional catch. Of that total Skipjack tuna formed the greater part at 110,097 MT, or 32.8% of the group national catch. This is closely followed by Bullet tuna at 108,494 MT, being 32.4% of the group national total figure.

### 3. Inland Fisheries

With only eight countries reporting their inland fisheries data and only five reporting their value data, the 'total' figures under this section are distorted. Where individual countries have reported both sets of data more reliance may be placed on the resulting figure.

During this 5-year reporting period, other than for Vietnam over 1996 and 1997, Indonesia led with consistently higher figures than any other reporting country, however, the figures for 1997 are lower than for any other year in the period at 304,258 MT, but still represent 20.5% of the reported total. Cambodia reported data of 233,000 MT with reasonable steady returns over the reporting period. The data from Thailand indicate similar figures for 1996 and 1997 at 208,400, 14.04% and 205,000 MT or 13.8% of the whole, respectively, until 1996 the Thai figures had steadily increased, reducing in 1997 by 1.63%. The Philippines reports 159,739 MT in 1997 which is the last figure in a steadily reducing sequence since 1993 when 210,775 MT was recorded. Malaysia reported 3,950 MT, which is 0.27% of the total. The last of the reporting countries is Taiwan with 412 MT, 0.03% of the total.

In terms of value only five countries reported data. Cambodia, at  $186,400 \times 10^3$  US\$ led the way, followed by Thailand, at  $163,729 \times 10^3$  US\$, the Philippines at  $73,205 \times 10^3$  US\$, Malaysia at  $22,262 \times 10^3$  US\$ and Taiwan at  $582 \times 10^3$  US\$ was the last reporting country. The percentages have not been calculated because the lack of data renders any conclusion unreliable.

During 1997 Vietnam reported the greatest production of 492,000 MT but there are no species breakdown reports. Indonesia reported the second rank of 304,258 MT with the Miscellaneous group leading with 108,557 MT, however, as in previous analyses, no value was reported. In terms of named species, Indonesia produced 43,925 MT in the Carps and barbels group, 17,715 MT in the Tilapia group, 33,312 MT in the Catfish group. Other Indonesian figures of note were the Gouramis at 39,751 MT and Snakeheads at 41,443 MT. The production of Freshwater molluscs does not figure highly in any country's reported data except in the Philippines with a production of 101,841 MT, but other than the production of Tilapia at 20,935 MT the freshwater production data from the Philippines is unremarkable. The third country in this league is Myanmar with a reported total of 246,000 MT, however, there are no species breakdown reports, the same to Cambodia, the fourth rank of 233,000 MT. Fifth in the regional countries is Thailand with 205,000 MT, the predominant data being the Miscellaneous fish group at 98,925 MT followed by the Carps and barbels group at 45,685 MT with the Tilapia group third in the list and Snakehead fourth at 24,100 MT. In terms of reported value the following countries did not report Brunei Darussalam, Hong Kong, Indonesia, Myanmar, Singapore and Viet Nam. Thus any conclusions drawn from the reported data is unreliable. From those countries that submitted reports, Thailand leads the way with  $163,729 \times 10^3$  US\$ with the Miscellaneous group of fish contributing the most at  $99,464 \times 10^3$  US\$. The Snakehead contribution was the next highest value at  $44,211 \times 10^3$  US\$ and the Carps and barbels group next at  $26,355 \times 10^3$  US\$ the Tilapia group following at  $22,140 \times 10^3$  US\$.

#### 4. Aquaculture

Under Aquaculture, the data included Mariculture, Brackishwater culture and Freshwater culture. For 1997, Indonesia is the lead country in terms of production quantities at 662,547 MT, but there are no reported value figures. Thailand is the lead country in terms of value with  $1,790,146 \times 10^3$  US\$ (46.4% of the regional total). There are no reported data during the five-years from 1993 to 1997 for Myanmar and Vietnam.

The Philippines figures for 1997 show a small decline over the previous year, but there was a steady increase from 1993 to 1996. In 1997 the Philippines recorded 957,390 MT which is 38.1% of the total. Indonesia reported 662,547 MT or 26.4% of the whole while Thailand reported 499,900 MT or 19.9%. Taiwan reported 270,139 MT or 10.8%, Cambodia reported 11,749 MT or 0.5%, Hong Kong reported 8,026 MT, 0.32%, Singapore had 4,279 MT, 0.17% and Brunei Darussalam reported 150 MT, a negligible percentage.

Aquaculture value figures in 1997 for the reporting countries show a decrease over 1993 of  $1,270,456 \times 10^3$  US\$ representing a percentage decrease of 24.8 in total due to the reduction of currency exchange rate of Thailand. Thailand led the field in 1997 with a reported figure of  $1,790,146 \times 10^3$  US\$, which is 46.4% of the whole. Next in line is the Philippines with  $929,173 \times 10^3$  US\$, 24.1%, Taiwan reported values of  $867,478 \times 10^3$  US\$, 22.5% followed by Hong Kong at  $37,200 \times 10^3$  US\$ or 0.9%, Cambodia at  $9,399 \times 10^3$  US\$ or 0.24%. The last of the reporting countries is Brunei Darussalam with  $1,019 \times 10^3$ , again a negligible percentage. No data is reported for Indonesia, Myanmar and Vietnam.

#### 4.1 Mariculture

In this sphere of activity, the culturing of Seaweed at 627,111 MT with a value of  $47,551 \times 10^3$  US\$ shows the greatest production as coming from the Philippines at 627,105 MT. Among the Molluscs, Sea Mussels predominate at 77,330 MT (9.2% of the regional total) followed by Cupped Oysters at 38,987 MT (4.7%), however, the value figures are reversed with Cupped Oysters showing the greater value. Taiwan led the field in Cupped Oyster production at  $62,859 \times 10^3$  US\$ (94.4% of the regional total). The value figures are Cupped Oysters at 66,608 (32.6% of the regional total) with a value of  $10,792 \times 10^3$  US\$, or, 5.28% of the region's total value. Blood cockles form a significant regional production of 66,658 MT with Malaysia producing the greatest quantities at 58,400 MT, which is 87.6% of the region's figures.

The culturing of fish is not so prevalent in the region except for Hong Kong who produced 1,036 MT of Groupers with a value of  $2,750 \times 10^3$  US\$.

#### 4.2 Brackishwater culture

Out of a total yield of 911,068 MT and a total value of  $2,646,876 \times 10^3$  US\$, Tiger prawn is the most valuable regional species both in quantity and value at 374,582 MT with an overall value of  $2,053,263 \times 10^3$  US\$, in national terms Thailand was the leading producer with 223,551 MT and a market value of  $1,546,200 \times 10^3$  US\$ (75.3% of the regional value), when compared with the total brackishwater production yield in Thailand, this is 97.73%. In terms of the largest producer, Indonesia leads with 370,259 MT, but no value figures are reported. Of this figure the largest component is Milkfish at 142,709 MT, or 38.5% of the national total. Indonesia also cultured 96,317 MT of Tiger prawns, however, no value figures are reported.

#### 4.3 Freshwater culture

During 1997 Indonesia led the field with 292,288 MT the predominant species being the Carps and barbels group with 181,413 MT, but there are no figures for value reported. The next major producer is Thailand with 200,177 MT, here the predominant species is the Tilapia group. The majority production in the region in 1997 was the Tilapia group with a reported total of 255,544 MT, but the Carps and barbels group follows closely with 254,738 MT. In terms of value the Tilapia contributed  $250,372 \times 10^3$  US\$ to the regional total, however, Taiwan shows the highest total value in the region with  $272,615 \times 10^3$  US\$ composed of eels (Anguillidae, the only country producing them) represented by 22,232 MT of production. In order of regional reported value contribution, Taiwan led with  $551,138 \times 10^3$  US\$ followed by Thailand  $189,163 \times 10^3$  US\$, the Philippines at  $164,398 \times 10^3$ , Malaysia with  $87,149 \times 10^3$  US\$, Hong Kong with  $13,692 \times 10^3$  US\$, Singapore reported  $1,578 \times 10^3$  US\$ and lastly, Brunei Darussalam with  $126 \times 10^3$  US\$. The collective total for the region is  $1,007,244 \times 10^3$  US\$.

### 5. Fishing gear analysis

An analysis of the types of fishing gear used in the region shows that the most prevalent is hook and line with 281,624 in use, or 40.4% of the whole. The Gill Net use shows 251,003. This is 36% of all types of gear used. The total of the different types of gear used in the region is 697,539. In terms of fishing effort and population density, Indonesia is leading fishing gear user 271,321 using hook and line, this is

96.34% of the regional total for this gear, similarly, Indonesia reports the use of 213,024 Gill Nets, or 84.87% of the regional figures. The regional total of Purse seine Nets is 44,848 with Indonesia reporting the use of 40,641, or 90.62%.

The figures for gear used are not conclusive as several countries including the Philippines, the third largest fishing nation, Myanmar, Cambodia, Brunei Darussalam and Vietnam did not report the types of gear used.

The order of precedence of fishing gear use and preference, is Hook and Line (281,624), Gill Nets (251,003), Seine Nets (44,848), Lift Nets (40,557), Push Nets (10,246), Trawls (5,580), Surrounding Nets (2,491) and Traps (546).

## **6. Number of Fishing Boats by Type and Tonnage**

The figures included in this section are only the boats that are registered in each nation. Myanmar, the Philippines and Vietnam have not reported their fishing boat numbers for 1997. Indonesia reports by far the greatest number of boats at 402,104 of which 228,919 were non-powered vessels. Of the 173,185 powered boats 95,022 are outboard powered while in the number of inboard powered vessels those of less than 5 tons are in the majority. By comparison with Indonesia the next highest is Thailand with 54,538 and them of the majority out-bord of 36,430. The range in other regional nations is from 32,672 in Malay 235 in Singapore to 27,080 in Taiwan.

## **7. Number of Fishermen by Working Status**

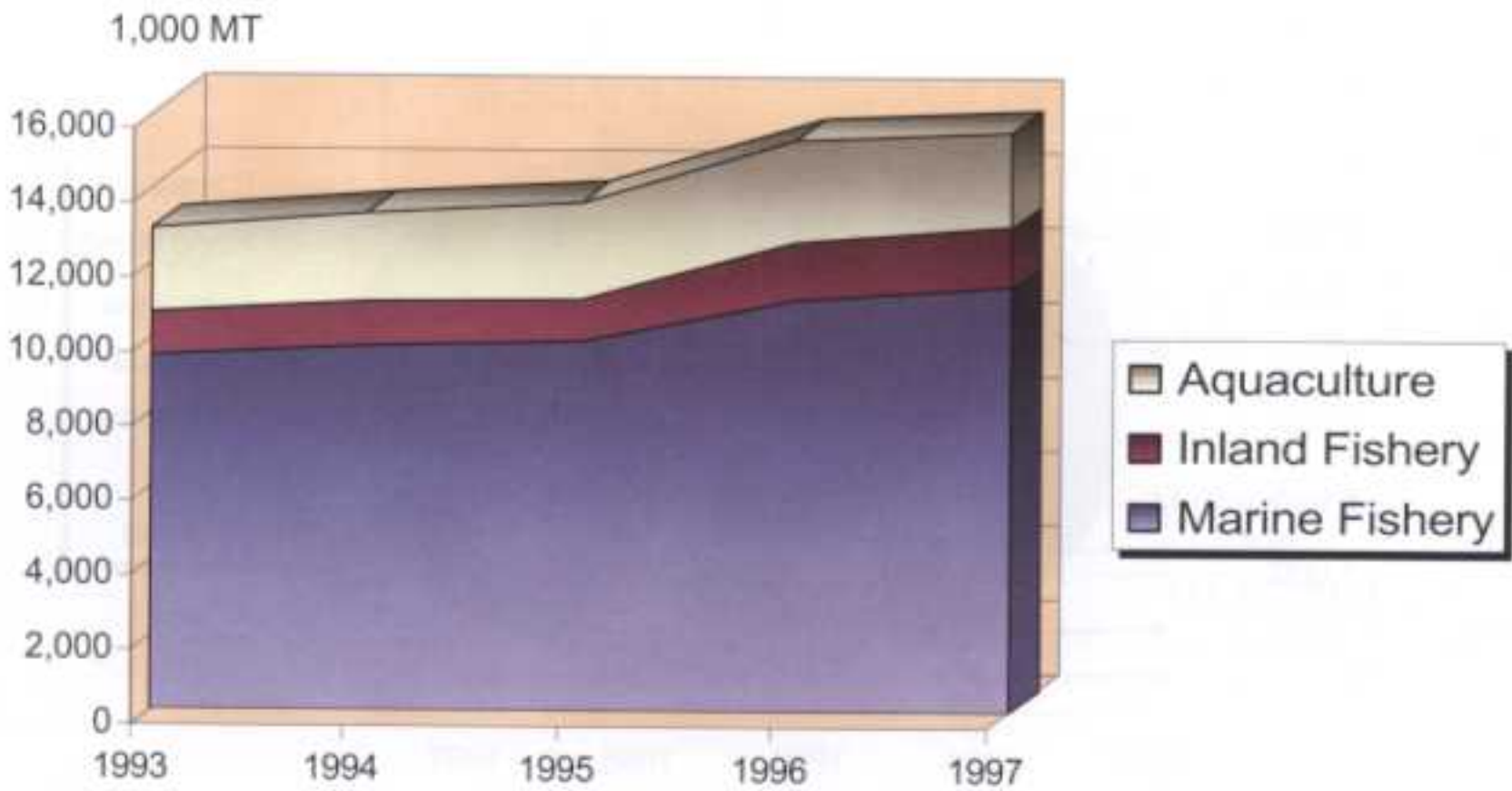
Malaysia, Myanmar, the Philippines and Vietnam have not reported their fishermen numbers for 1997. The number of Indonesian fishermen in 1997 was 2,087,802 of which 1,062,819 or 50.9 % are full-time fishermen. Taiwan reported 278,845 fishermen of which 168,558 or 60 % are full-time fishermen. Thailand recorded 157,377 fishermen of which 123,512 or 78.5 % are full-time fishermen. For Hong Kong, their fishermen numbers were 12,900 all of whom are full-time fishermen, the same is true for Cambodia and Singapore who reported the number of fishermen as 10,508 and 476, respectively. The number of Brunei fishermen in 1997 was 1,091 but half of them or 548 and 543 are full-time fishermen and part-time fishermen (Partly engaged in fishing), respectively.

## **8. Number of Fishing Establishments by Types and Sizes of Management**

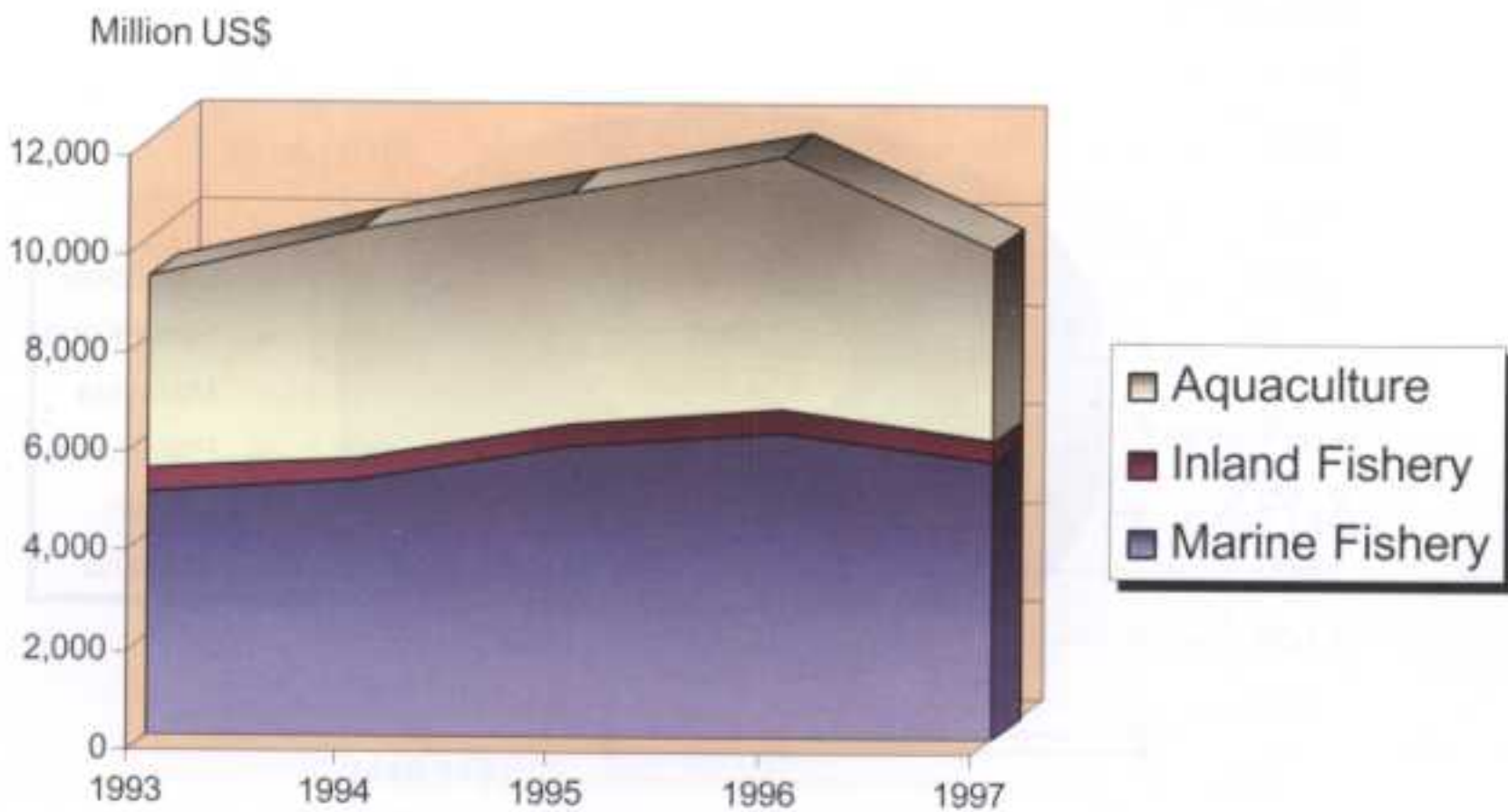
The number of Indonesian fishing establishments in 1997 was 435,165 of which 214,925 or 49.4% are non-powered boats. Of the 170,174 powered boats 96,827 (56.9%) are outboard driven. The greatest proportion of inboard powered boats 52,509 or 71.6% is less than 5 tons. Indonesia did not report the types of management. Of those countries who did report Thailand show a total figure of 53,109 establishments of which 51,668 (97.3%) are individually managed. Taiwan reports 776 private companies operating and 105 in Brunei Darussalam while there are only 21 companies operating in Thailand. Thailand reports their number of fishing establishments by size of management as 53,109 they do not report a breakdown of boat size in the data. Seven countries failed to report their fishing establishments.

# 1. Fishery Production 1993-1997

(1) In quantity



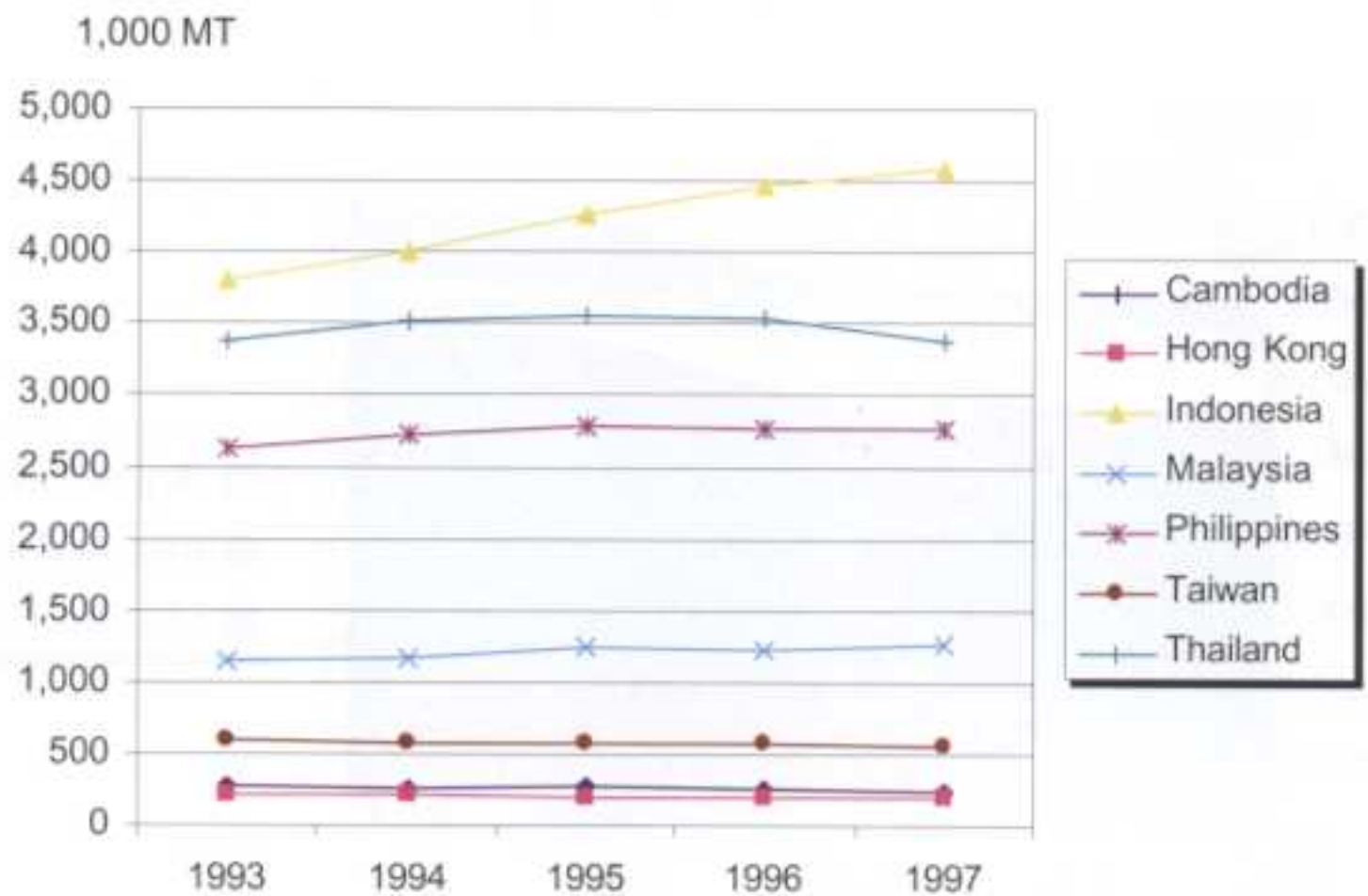
(2) In value



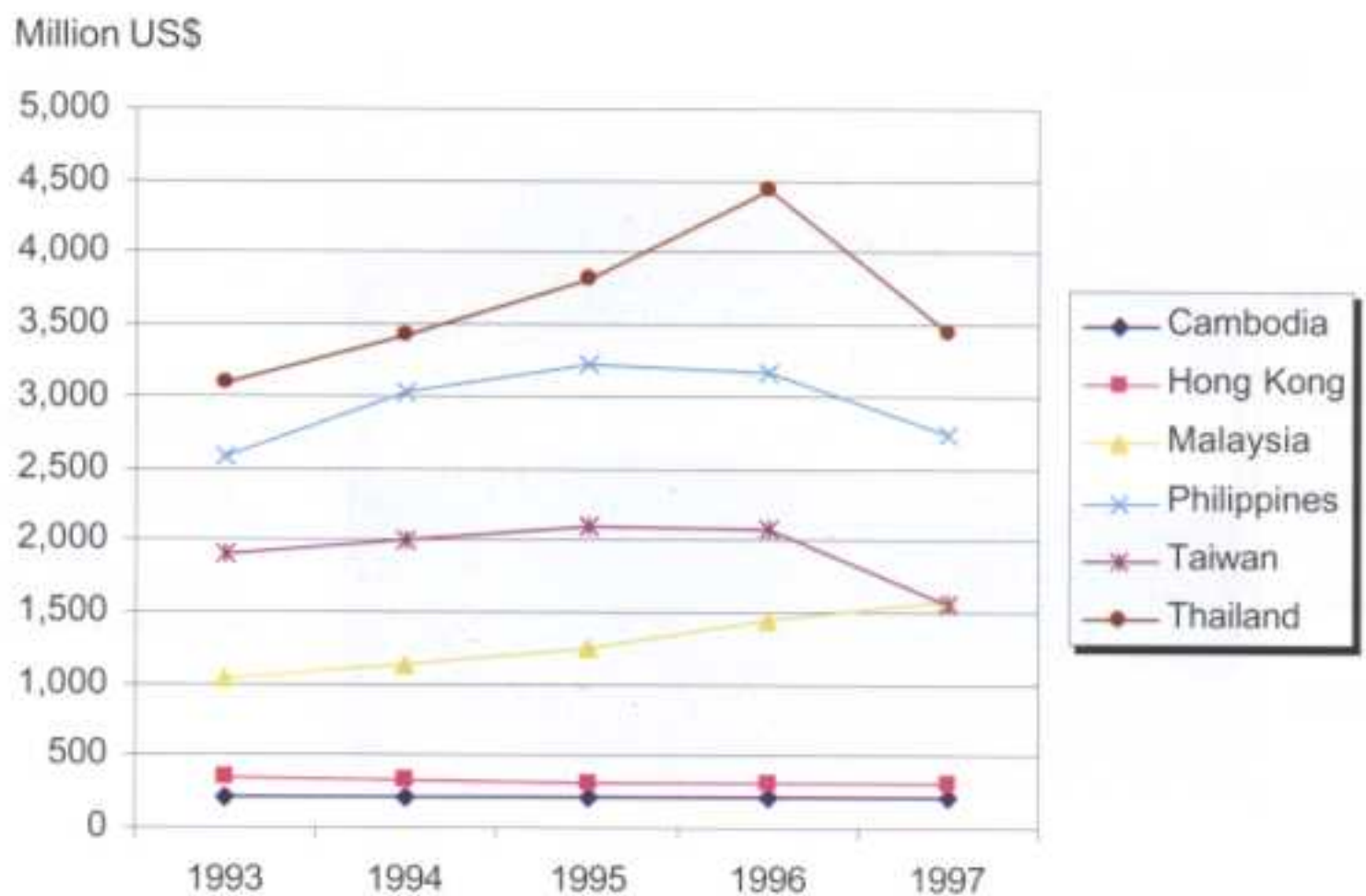
Note : Data in value of Indonesia are not available from 1987

## 2. Fishery Production by Country 1993-1997

(1) In quantity

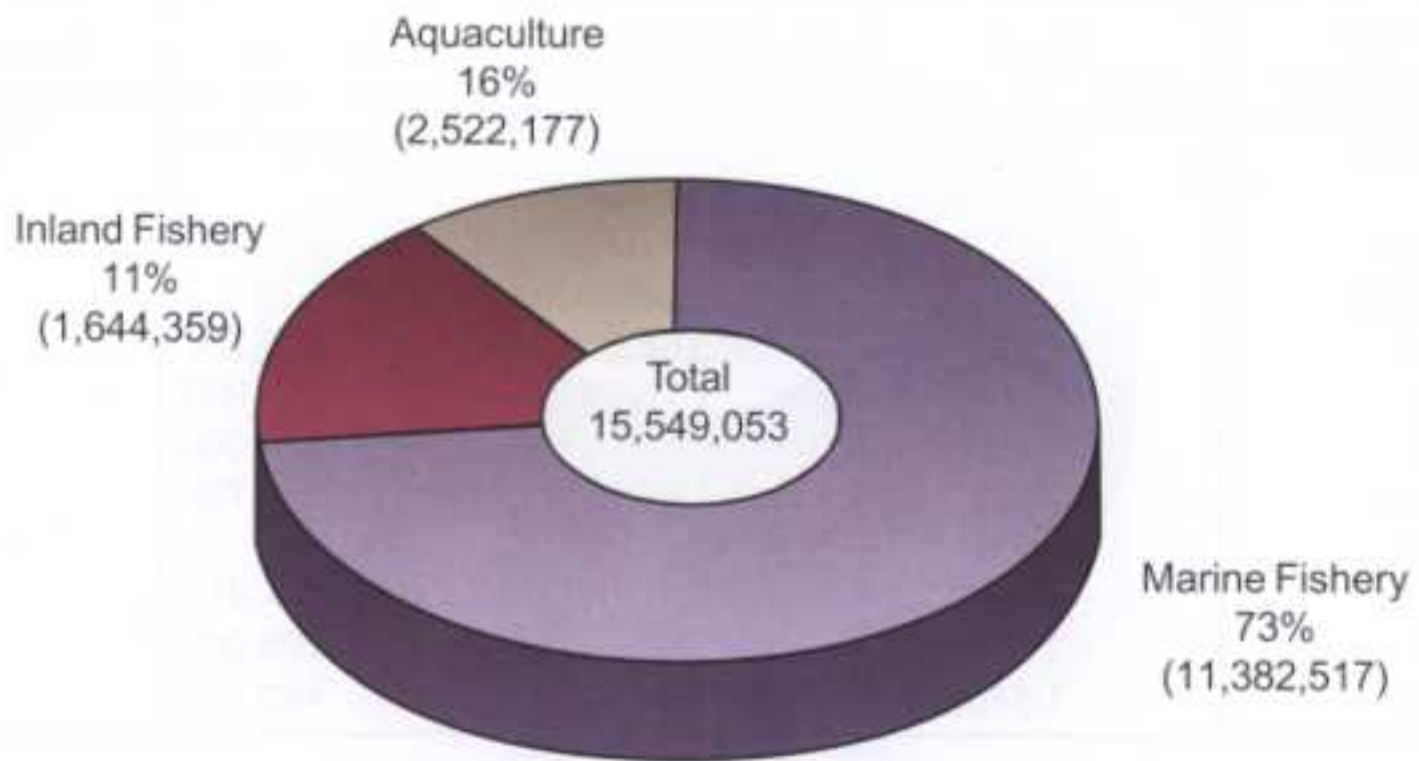


(2) In value

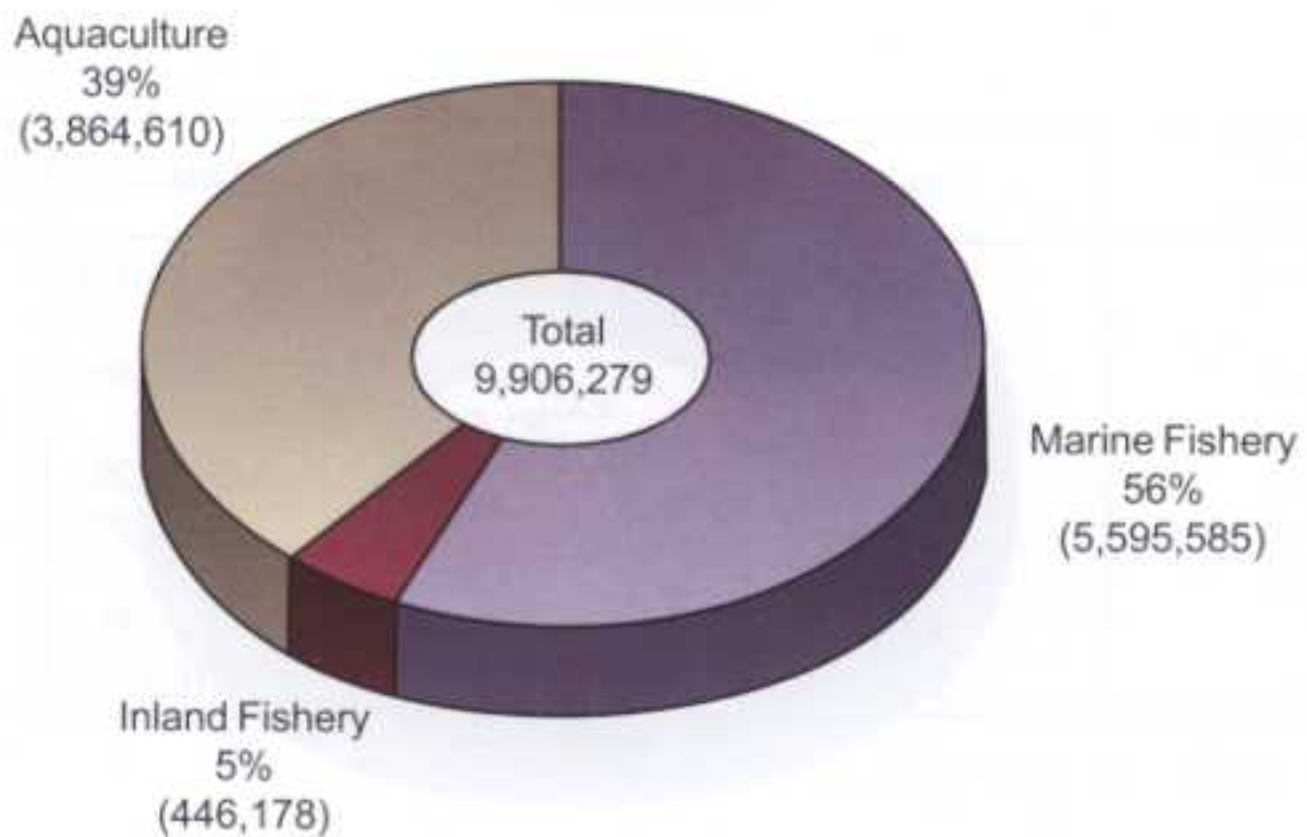


### 3. Fishery Production by Sub-sector : 1997

(1) In quantity (MT)



(2) In value (US\$ 1,000)



Notes : Data in value of Indonesia is not available.

#### 4. Production by Sub-sector and by Country : 1997

(1) In quantity

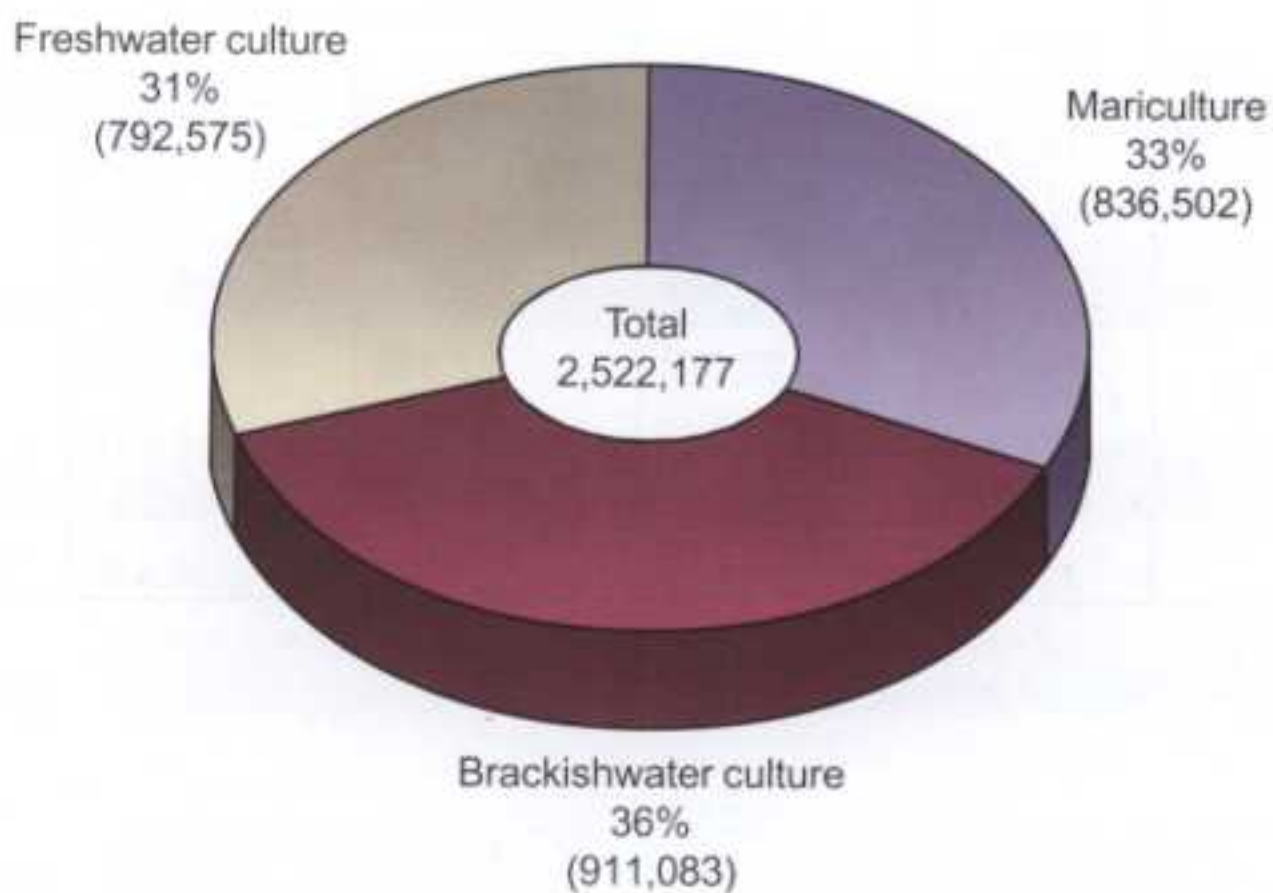
Country/ Territory	Total	Marine Fishery	Inland Fishery	MT
				Aquaculture
Total	15,549,053	11,382,517	1,644,359	2,522,177
Brunei	3,853	3,690	-	163
Cambodia	274,549	29,800	233,000	11,749
Hong Kong	194,026	186,000	-	8,026
Indonesia	4,579,766	3,612,961	304,258	662,547
Malaysia	1,280,907	1,168,973	3,950	107,984
Myanmar	922,000	676,000	246,000	...
Philippines	2,766,507	1,649,378	159,739	957,390
Singapore	13,529	9,250	-	4,279
Taiwan	559,524	288,973	412	270,139
Thailand	3,384,392	2,679,492	205,000	499,900
Viet Nam	1,570,000	1,078,000	492,000	...

(2) In value

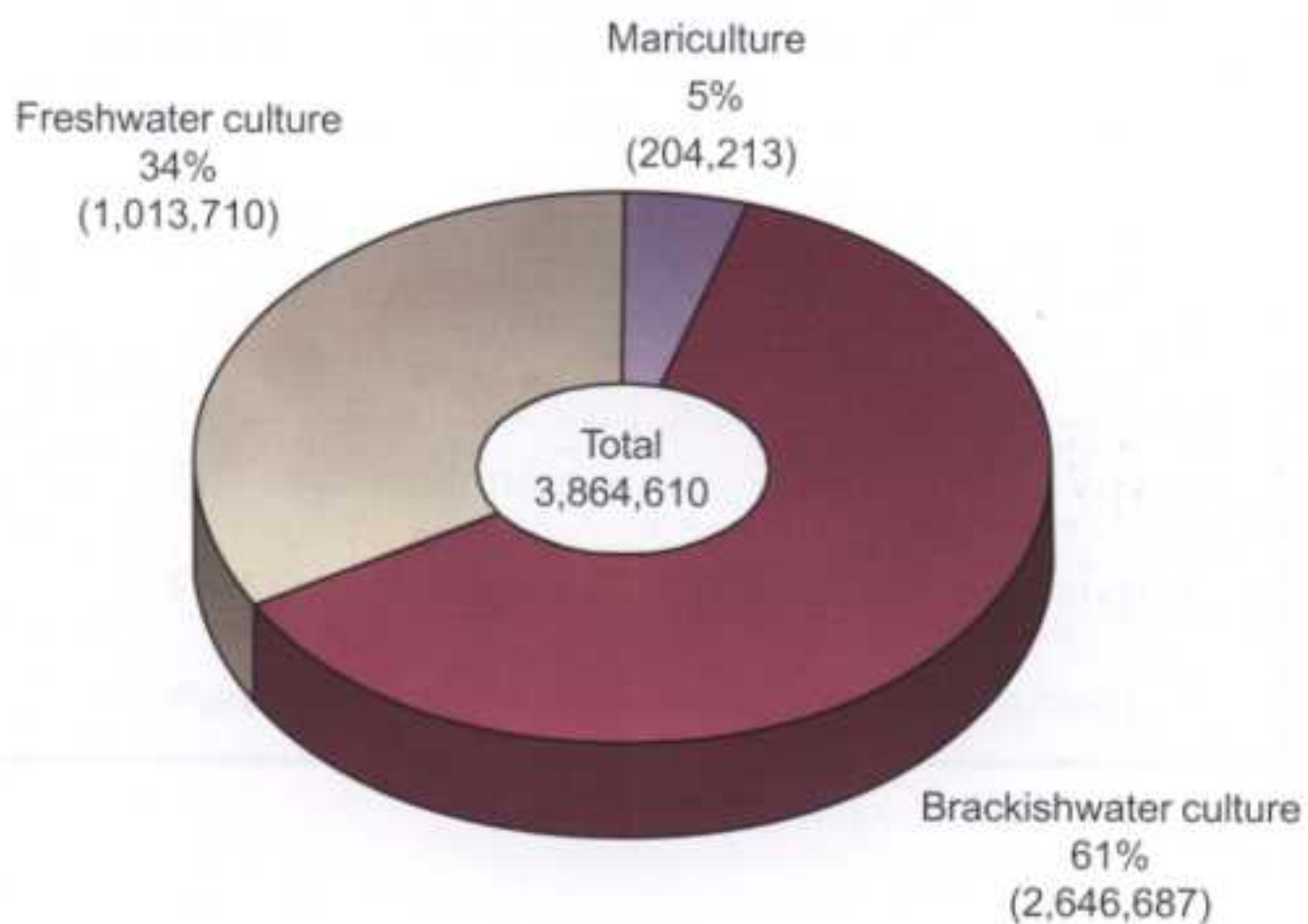
Country/ Territory	Total	Marine Fishery	Inland fishery	US\$1,000
				Aquaculture
Total	9,906,279	5,595,585	446,178	3,864,610
Brunei	7,513	6,494	-	1,019
Cambodia	219,639	23,840	186,400	9,399
Hong Kong	318,781	281,581	-	37,200
Malaysia	1,581,818	1,338,182	22,262	221,469
Philippines	2,738,750	1,736,372	73,205	929,173
Singapore	31,739	23,013	-	8,726
Taiwan	1,556,889	688,829	582	867,478
Thailand	3,451,150	1,497,274	163,729	1,790,146

## 5. Aquaculture by Sub-sector : 1997

(1) In quantity (MT)



(2) In value (US\$ 1,000)



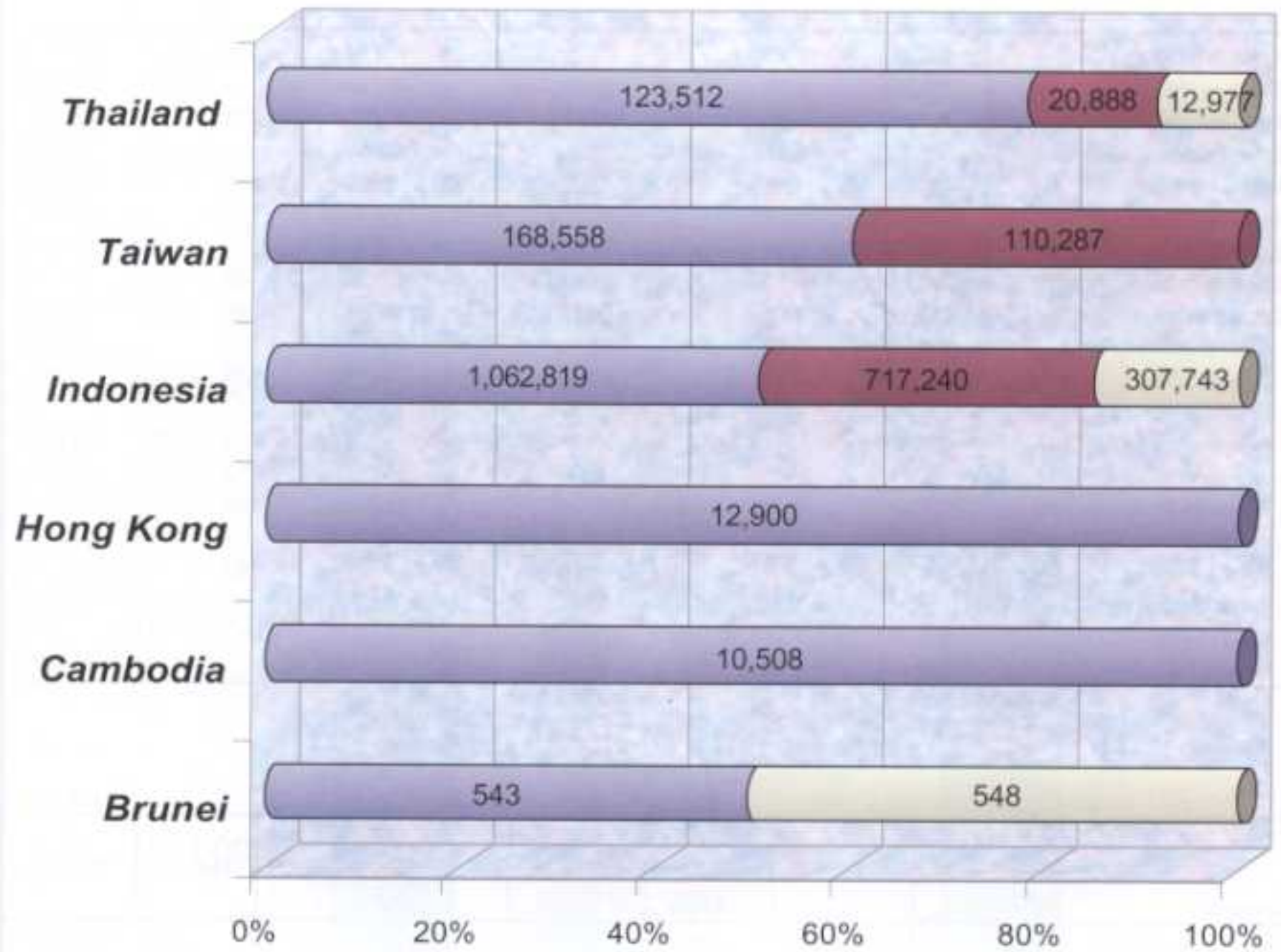
Note : Data of Indonesia and Malaysia are not available.

## 6. Number of Fishing Boats by Type (Marine fishery only)

Country / Territory	Year	Total	Non-powered boat	Out-board powered boat	In-board powered boat
Brunei	1997	1,091	454	637	30
Hong Kong	1997	4,462	639	1,531	2,292
Indonesia	1997	402,104	228,919	95,022	78,163
Malaysia	1997	32,672	2,952	12,829	16,891
Singapore	1997	235	5	142	88
Taiwan	1997	27,080	2,450	12,520	12,110
Thailand A	1995	54,538	2,826	36,430	15,282

Notes : A From the Marine Fishery Census, 1995.

## 7. Number of Fishermen by Working Status



Full-time fishermen

Part-time fishermen (Mainly engaged in fishing)

Part-time fishermen (Partly engaged in fishing)

## 8. Major 20 Marine Species Caught in the Region : 1997

### (1) In quantity

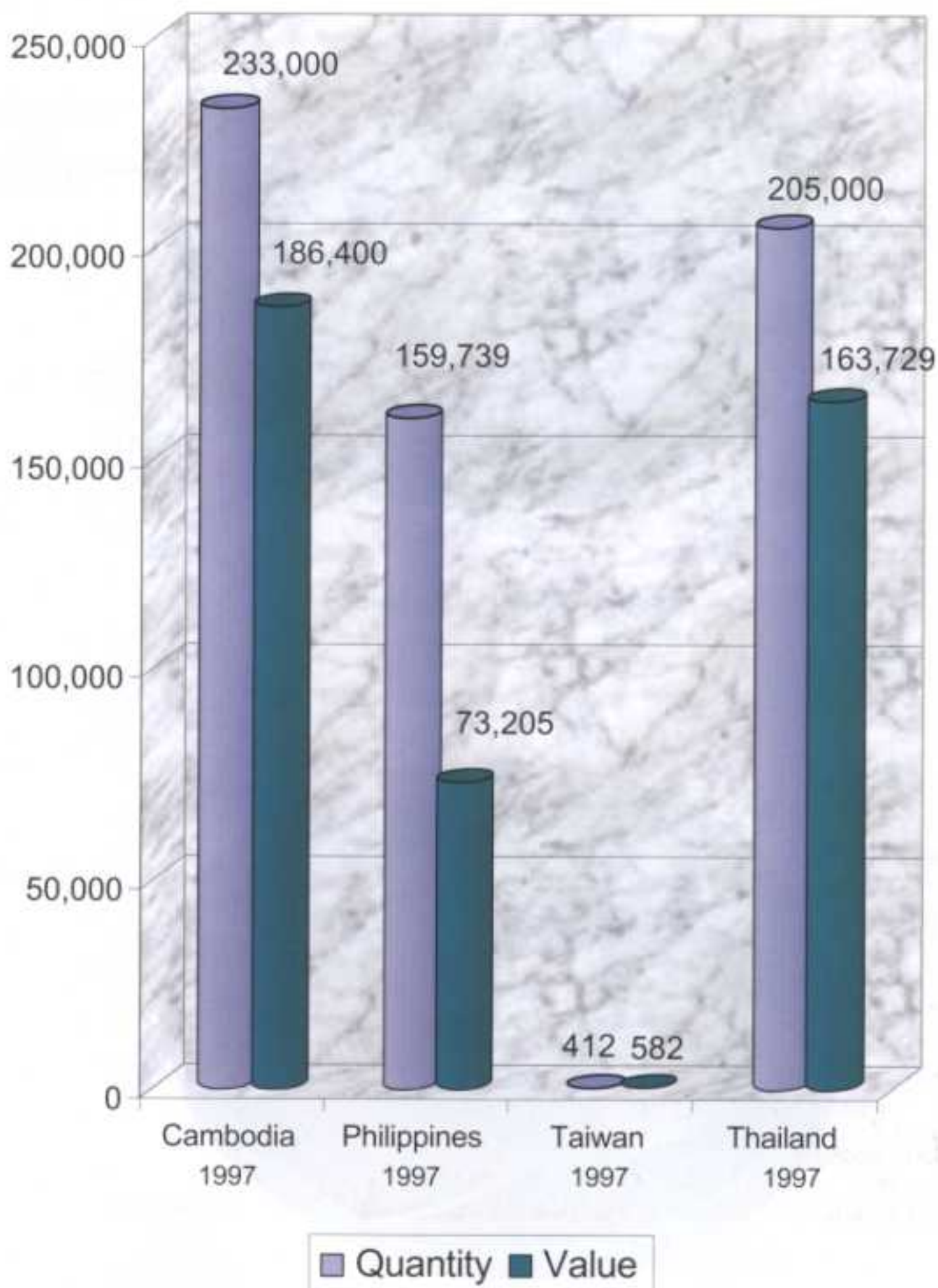
Country/Territory Species	Total	Ratio composed (%)	MT						
			Hong Kong	Indonesia	Malaysia	Philippines	Singapore	Taiwan	Thailand
1. Trash fish (3902)	1,196,477	12.47	-	-	333,668	7,869	2,139	30,691	822,110
2. Sardines (3501)	805,369	8.39	12	295,550	-	302,341	-	4,674	202,792
3. Misc. fish (3901)	702,917	7.33	101,062	433,415	-	4,823	1,418	-	162,199
4. Round scads (3405)	659,285	6.87	4,143	276,924	71,184	228,878	-	-	78,156
5. Anchovies (3503)	444,097	4.63	20	183,591	23,772	78,678	150	545	157,341
6. Indian mackerels (3701)	385,664	4.02	-	201,404	86,801	54,732	51	-	42,676
7. Eastern little tuna (3606)	302,374	3.15	1	212,511	-	26,573	-	1,309	61,980
8. Skipjack tuna (3601)	298,765	3.11	-	187,206	-	110,097	47	1,415	-
9. Other prawns (4503)	259,170	2.70	19	96,790	75,479	15,562	706	15,632	54,982
10. Seiar scads (3407)	256,385	2.67	-	125,504	52,309	54,167	313	-	24,092
11. Squids (5702)	247,414	2.58	13,586	41,755	38,491	54,155	470	20,009	78,948
12. Frigate and bullet tuna (3607)	231,583	2.41	-	116,214	-	108,494	-	6,875	-
13. Indo-pacific m. (3702)	231,106	2.41	-	22,250	-	22,978	-	47,257	138,621
14. Jacks, cavalla, t. (3406)	199,745	2.08	33	32,097	-	32,175	212	85,481	49,747
15. Threadfin breems (3310)	199,347	2.08	20,024	29,340	31,052	29,839	239	1,136	87,717
16. Yellowfin tuna (3602)	189,745	1.98	-	116,214	-	67,342	-	6,189	-
17. Pony fishes (3311)	153,082	1.60	-	89,403	2,362	61,254	63	-	-
18. Penaeid prawns (4502)	133,381	1.39	6,206	86,512	15,024	16,337	-	1,213	8,089
19. Green seaweeds (9301)	126,040	1.31	-	125,979	-	-	-	61	-
20. Narrow-barred king m. (3609)	119,937	1.25	1,711	74,392	13,734	11,237	-	4,362	14,501

### (2) In value

Country/Territory Species	Total	Ratio composed (%)	US\$ 1,000						
			Hong Kong	Philippines	Singapore	Taiwan	Thailand		
1. Tiger prawn (4501)	1,569,840	37.14	-	2,685	-	303	1,566,852		
2. Squids (5702)	328,975	7.78	42,272	85,164	1,393	42,709	157,437		
3. Round scads (3405)	276,201	6.53	3,554	240,391	-	-	32,256		
4. Other prawns (4503)	239,467	5.67	10	11,024	5,795	42,492	180,146		
5. Sardines (3501)	221,546	5.24	26	176,294	-	10,014	35,212		
6. Misc. fish (3901)	184,574	4.37	99,894	4,898	4,339	-	75,443		
7. Indo-pacific mackerel (3702)	178,139	4.21	-	27,951	-	27,902	122,286		
8. Skipjack tuna (3601)	165,440	3.91	-	163,710	51	1,679	-		
9. Mulllets (3403)	155,313	3.67	-	11,989	201	128,939	14,184		
10. Jacks, cavalla, trevallies (3406)	154,178	3.65	93	40,751	528	88,370	24,436		
11. Cuttlefishes (5701)	149,935	3.55	1,761	3,686	526	10,695	133,267		
12. Yellowfin tuna (3602)	127,270	3.01	-	98,886	-	28,384	-		
13. Frigate and bullet tuna (3607)	121,565	2.88	-	117,262	-	4,303	-		
14. Trash fish (3902)	116,728	2.76	-	7,699	723	41,693	66,613		
15. Threadfin breems (3310)	110,957	2.62	28,797	39,966	897	3,429	37,868		
16. Swimming crabs (4201)	94,567	2.24	4,278	33,055	769	-	56,465		
17. Penaeid prawns (4502)	91,585	2.17	30,164	43,237	-	17,960	224		
18. Narrow-barred king m. (3609)	88,913	2.10	5,022	19,342	-	31,028	33,521		
19. Sharks (3701)	85,580	2.02	-	62,293	128	-	23,159		
20. Round herring (3503)	78,960	1.87	86	57,763	168	2,174	18,769		

## 9. Inland Fishery Production in Quantity and Value by Country

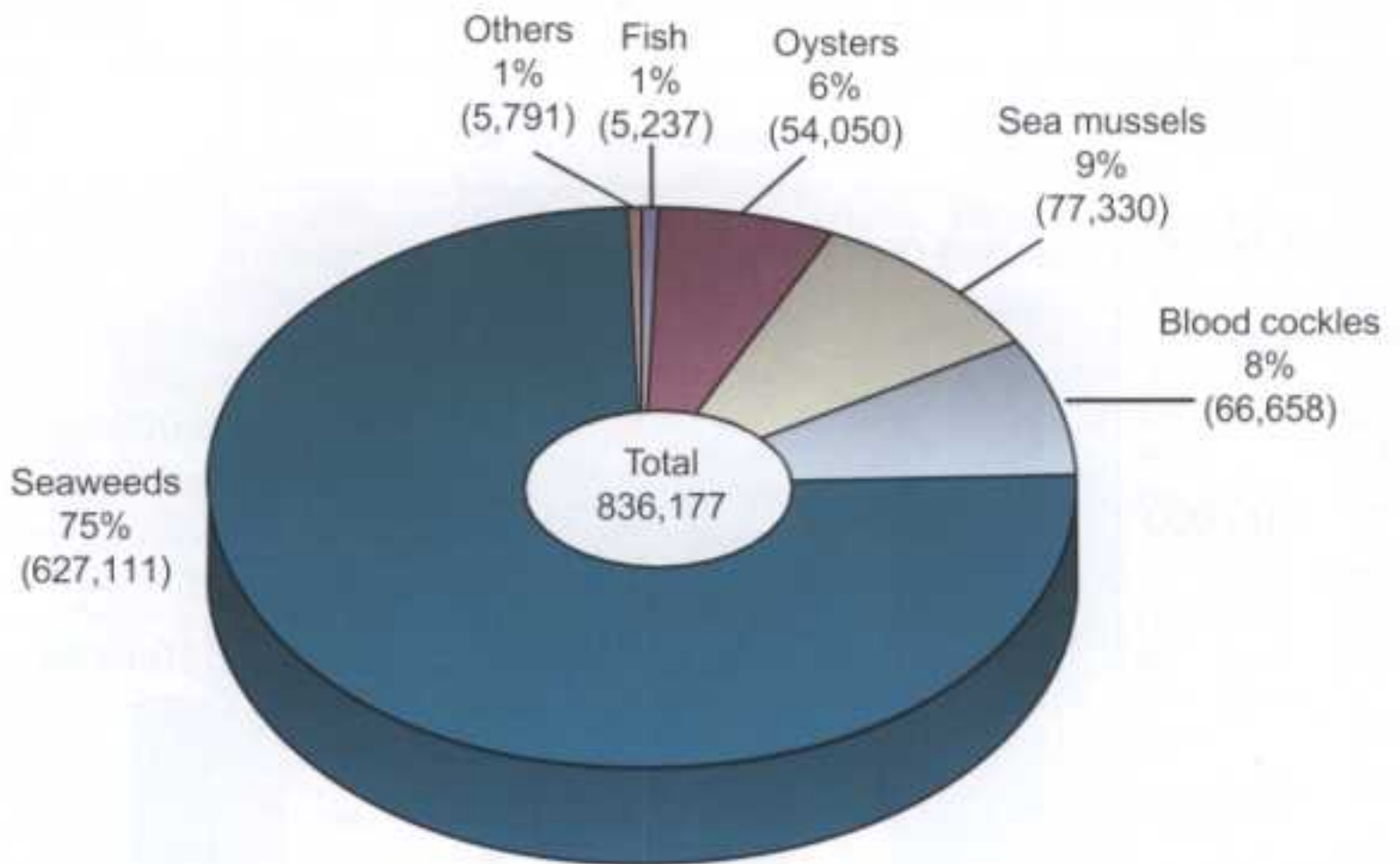
Quantity : MT  
Value : US\$ 1,000



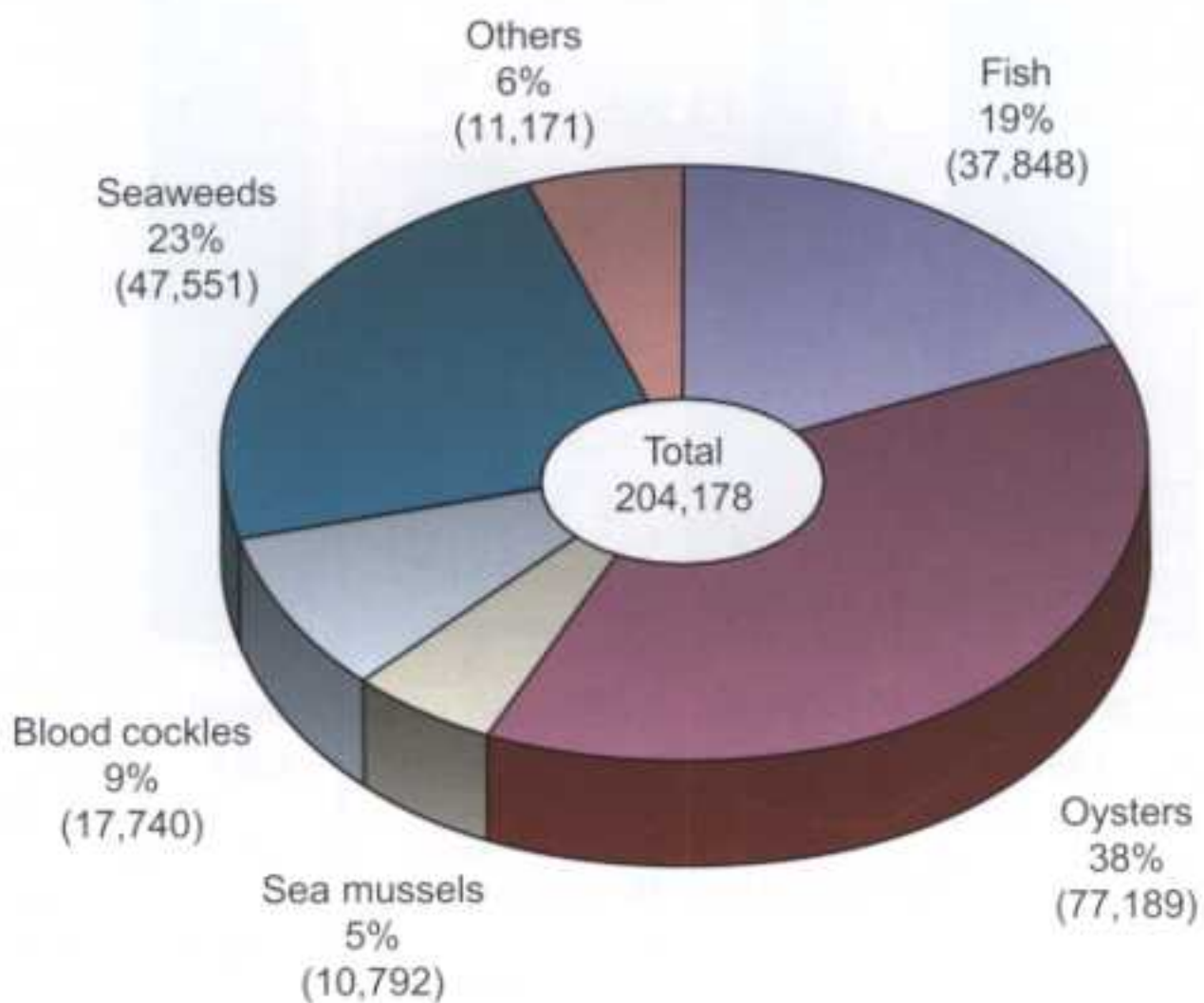
## 10. Aquaculture

### 10.1 Mariculture Production : 1997

(1) In quantity (MT)

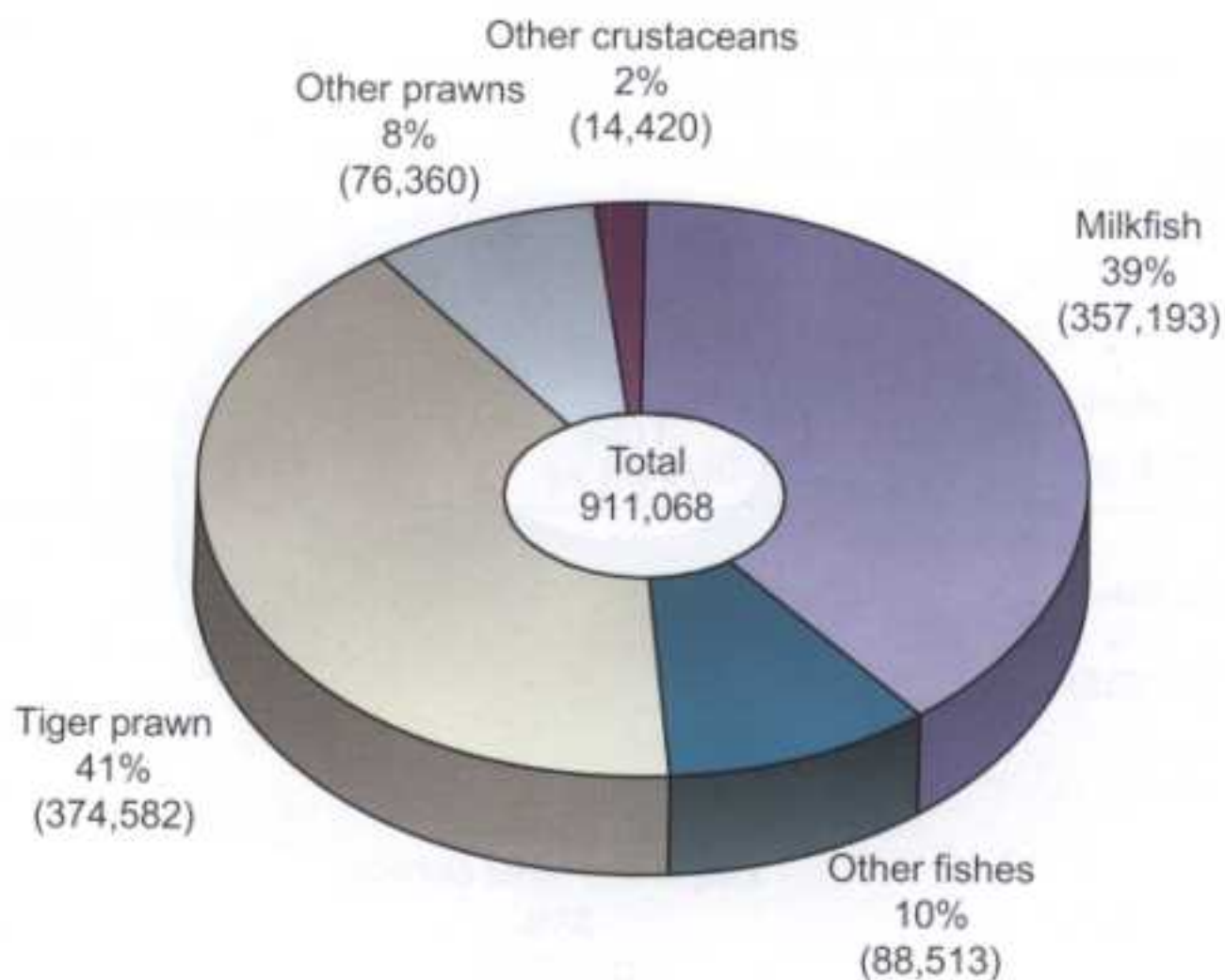


(2) In value (US\$ 1,000)

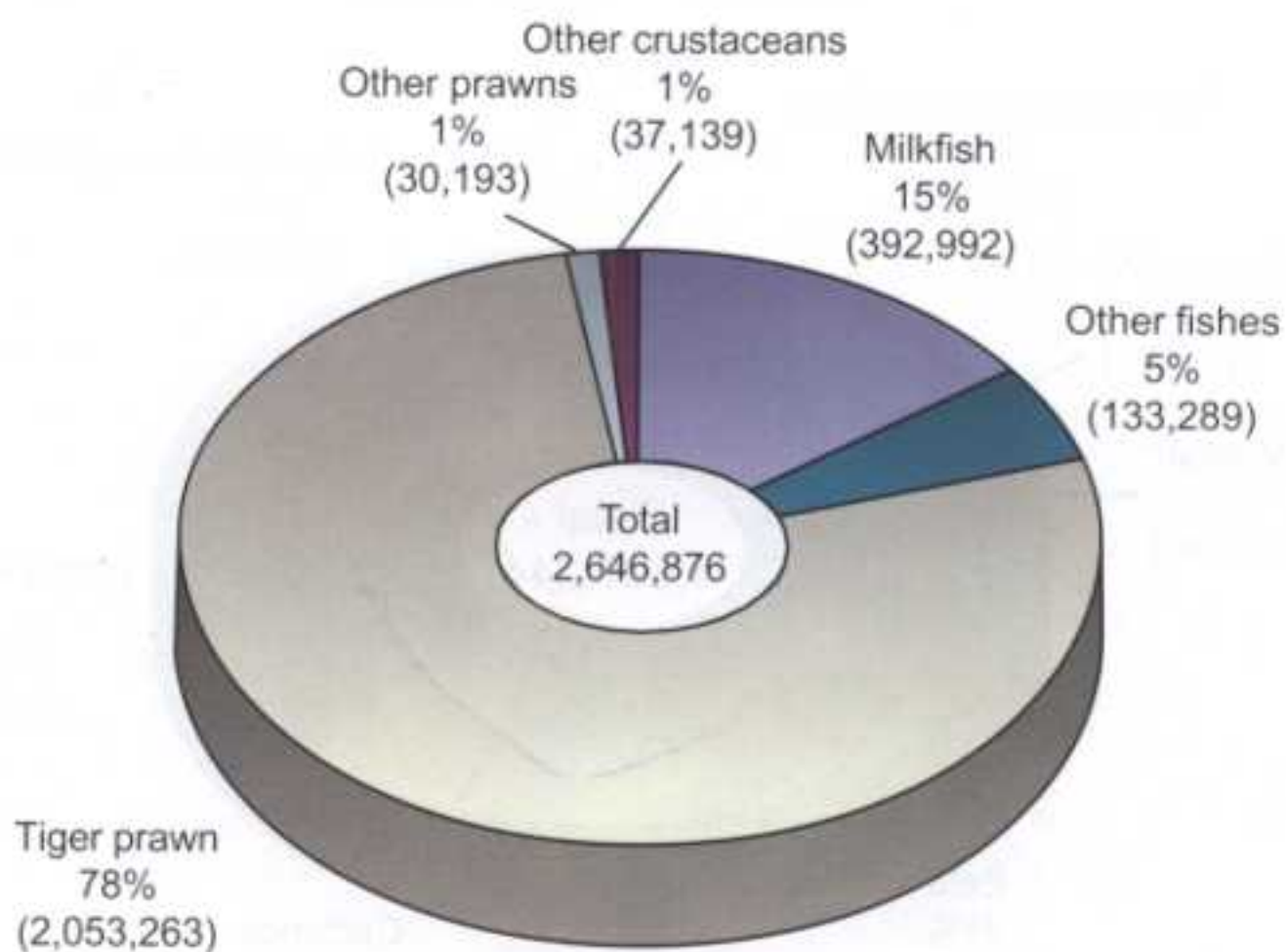


## 10.2 Brackishwater Production : 1997

(1) In quantity (MT)



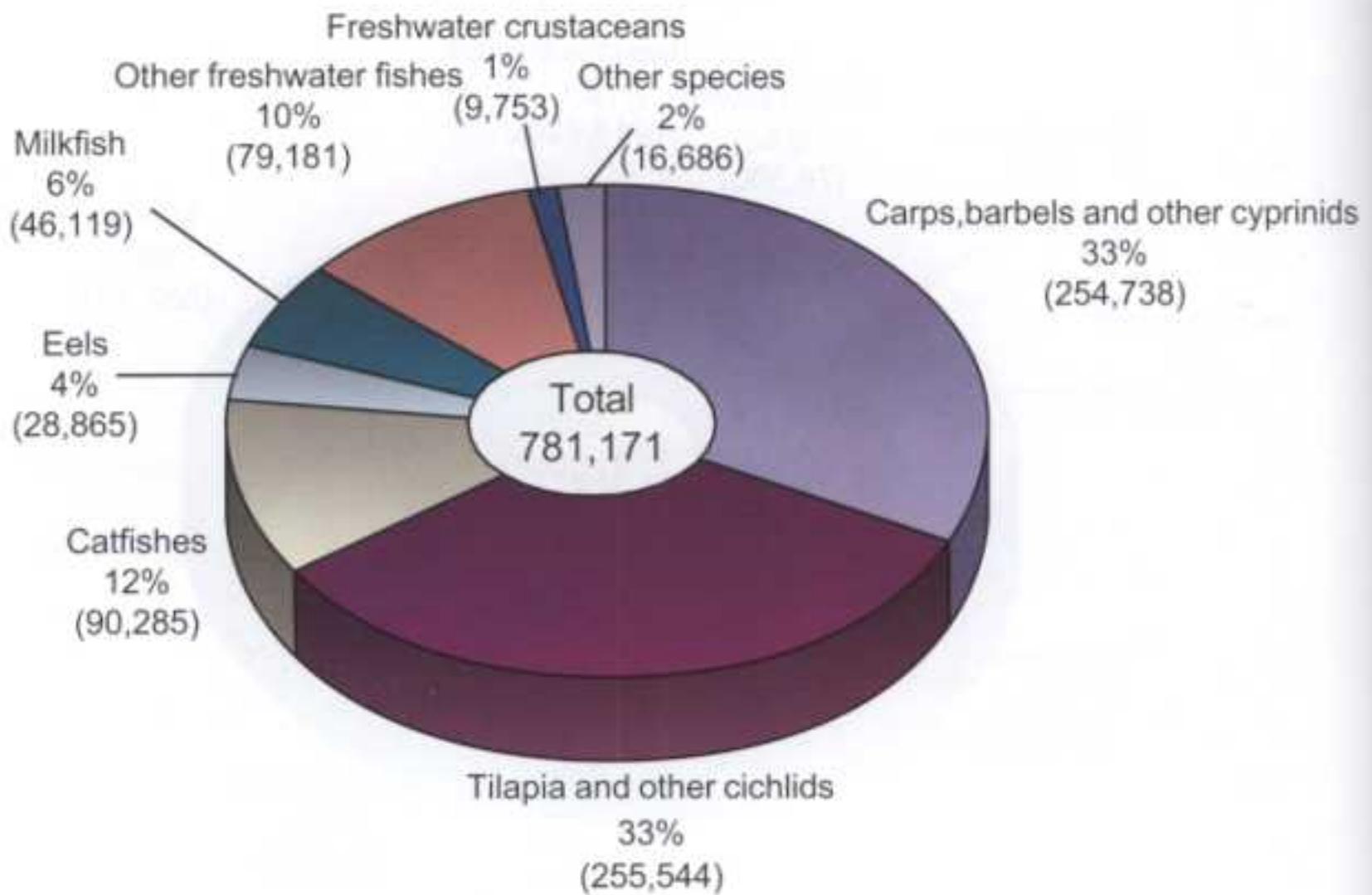
(2) In value (US\$ 1,000)



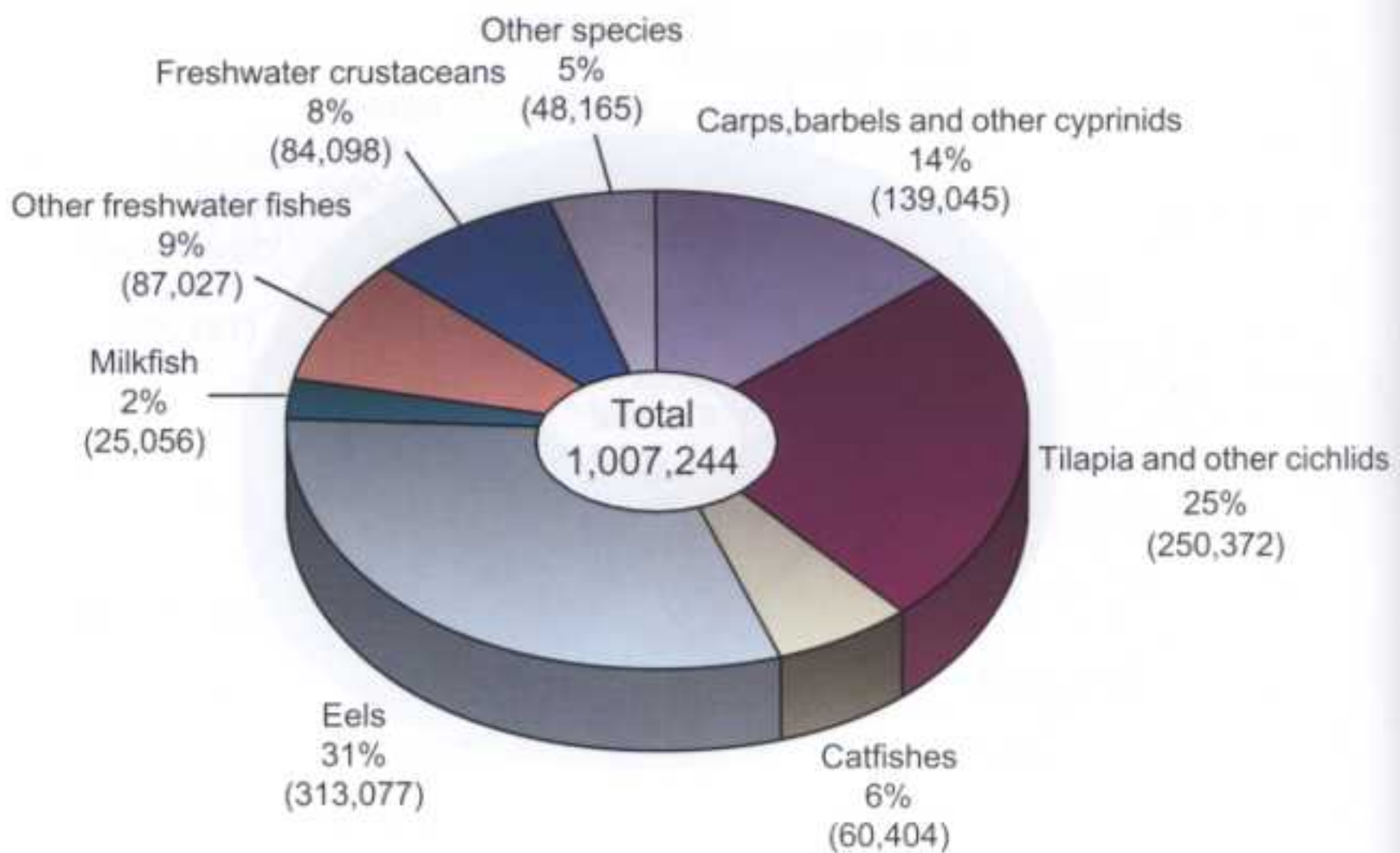
Note : Data in value of Indonesia are not available.

### 10.3 Freshwater Culture Production : 1997

(1) In quantity (MT)



(2) In value (US\$ 1,000)



Note : Data in value of Indonesia are not available.

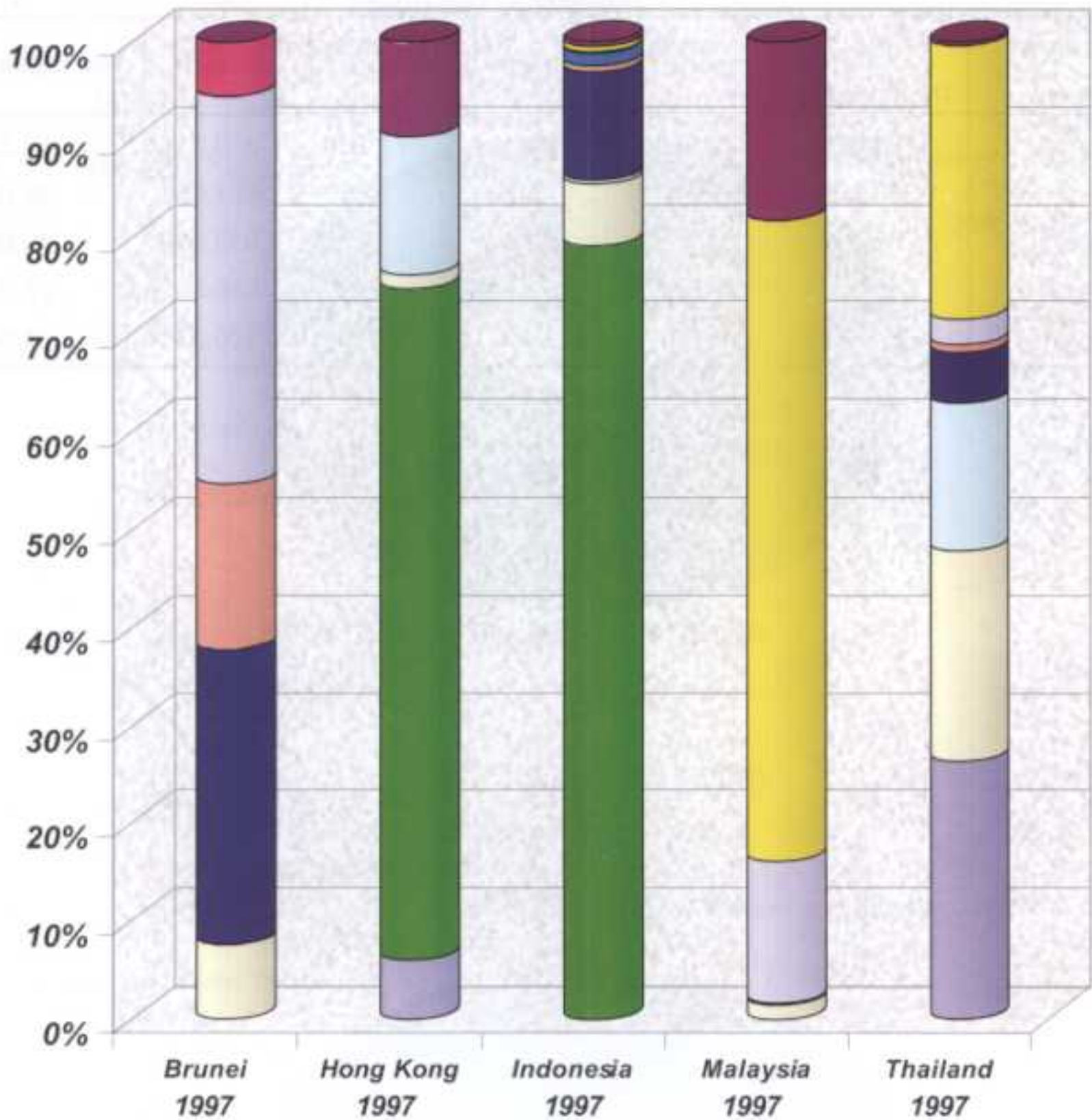
## 11. Fish Food Balance : 1997

kg.

Country / Territory	Total Production	Import	Trash fish	Export	Balance	Per capita
Hong Kong	194,026	222,554	-	77,264	339,316	52.20
Malaysia	1,280,907	229,929	333,668	180,080	997,088	46.00
Philippines	2,766,507	291,067	7,869	130,399	2,919,306	40.80
Taiwan	559,524	467,535	30,691	476,786	519,582	23.97
Thailand	3,384,400	718,237	822,110	1,173,637	2,106,890	34.64

**Notes :** Per capita fish consumption was estimated based on the assumption that all Trash fish landed were used not for human consumption.

## 12. Disposition of Catch (percentage)



- |                   |                               |                            |
|-------------------|-------------------------------|----------------------------|
| ■ Live fish       | ■ Fresh fish                  | □ Frozen products          |
| □ Canned products | ■ Dried products              | ■ Smoked products          |
| ■ Boiled products | □ Fermented products          | ■ Cured products           |
| ■ Comminuted      | ■ Reduction to other products | ■ Powdered/flaked products |
| ■ Others          |                               |                            |

### 13. Export and Import of Fishery Commodities : 1997

US\$ 1,000

Country/Territory	Export	Import	Balance of Trade
Total	7,293,488	4,194,152	4,439,792
Hong Kong	407,066	1,665,312	-1,258,246
Malaysia	177,289	170,017	7,272
Philippines	436,204	134,105	302,099
Singapore	535,795	618,006	-82,211
Taiwan	1,341,447	717,902	623,544
Thailand	4,395,687	888,810	3,506,877