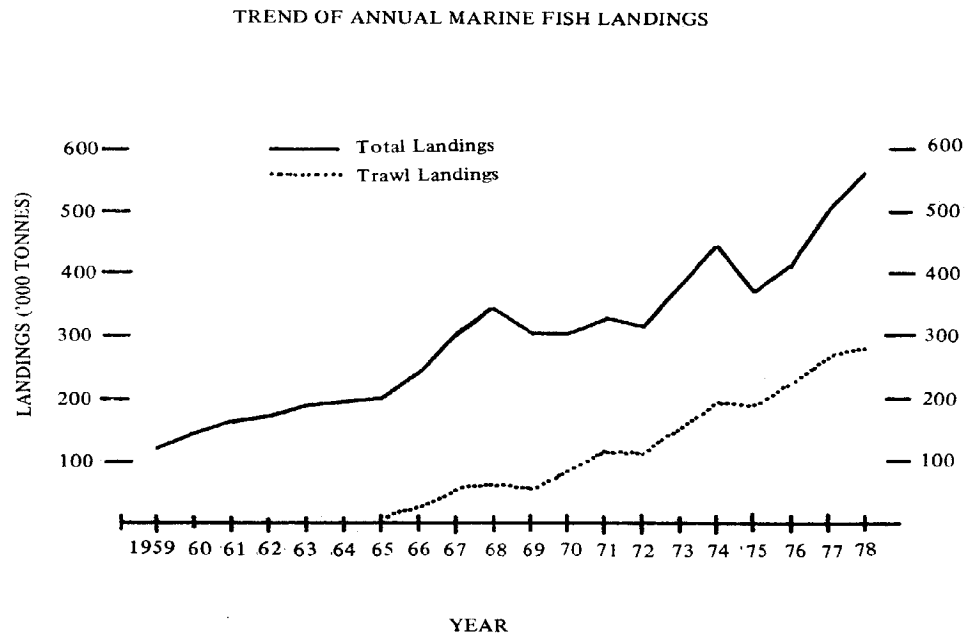


(TRANSLATION)

GENERAL REVIEW

PENINSULAR MALAYSIA

1. Trend of Annual Landings:



The trend of annual fisheries landings and cultures (excluding freshwater fisheries) has been increasing for the last two decades or so. One reason for this trend was the mechanization of the fishing fleet which increased fishing effort and efficiency. Another more important reason for this trend was the introduction of trawling in 1965 which acted as growth catalyst by increasing the pace of mechanization and capital investment in the fishery. These developments greatly contributed to the increase in landings.

Whereas the prospects for the continuation of this trend on the East Coast is good, the West Coast, on the other hand, has very limited potential for further growth. This is because of the limitations imposed by the geography of the coastline and the lack of knowledge of the resources in the off-shore waters. Presently about 72% of the total fishing fleet in the country is concentrated in the inshore waters of the West Coast and contributing to about 73% of total Peninsular landings. This concentration of fishing effort has put a heavy pressure on the existing resources to a point that it has begun to lead to a situation of over exploitation of the resources. This is reflected in the increasing trend in trash fish landings and the decrease in the sizes of fish and prawn species landed. Today the marine fishery here

is sustained mainly by prawns and the more or less regular good seasons for pelagic fishes such as in 1967 – 1968, 1973 – 1974 and 1977 – 1978.

2. Landings in 1978:

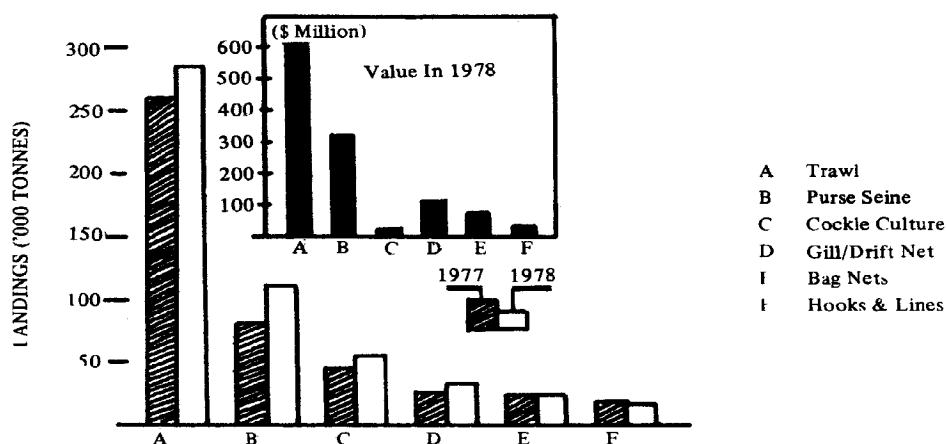
Total landings by fisheries and cultures (excluding freshwater fisheries) in 1978 was 564,898 tonnes. Compared to 1977, this is an increase of 13.4% or 66,946 tonnes. Whereas the increase in 1977 was 21.2%, this year's increase indicates a slower growth rate in the fishery. The increase in 1978 was due largely to the abundance of pelagic fish species, prawns and the increase in cockle production. Pelagic fish landings increased by 21.8% to 169,548 tonnes; prawn landings increased by 23.8% to 67,548 tonnes; and cockles increased by 19.8% to 55,598 tonnes. By comparison, demersal fish landings increased by 4.6% to 233,448 tonnes while other crustaceans, molluscs and jelly fish increased by 12% to 38,756 tonnes.

The West Coast landed 410,774 tonnes in 1978 which was an increase of 8.7% over 1977. Whereas last year's increase was 28.3%, this year's increase of 8.7% could possibly mean that the upward trend which started in 1976 is beginning to taper-off. The increase in 1978 was largely due to the increase in pelagic fish landings, prawn landings and cockle production. Pelagic fish landings increased by 21.3% from 69,994 tonnes in 1977 to 84,915 tonnes in 1978; prawn landings increased by 23.5% from 50,987 tonnes in 1977 to 63,017 tonnes in 1978; and cockles increased by 19.8% from 46,423 tonnes in 1977 to 55,598 tonnes in 1978. By comparison, demersal fish landings increased by a mere 0.4% from 179,411 tonnes in 1977 to 180,257 tonnes in 1978, while other crustaceans, molluscs and jellyfish landings decreased by 13.1% from 31,052 tonnes in 1977 to 26,987 tonnes in 1978.

The East Coast landed 154,124 tonnes in 1978 which was an increase of 28% over 1977. Compared to last year's increase of 3.2%, this year's increase of 28% indicates better prospects for growth. The main reason for this year's increase was the recovery of the fisheries in Kelantan and East Johore. Both these states which had a very poor season in 1977, had increases in their landings this year by 103% and 120% respectively. This recovery was largely brought about by the abundance of pelagic and demersal fishes, squids, cuttlefish and acetes. East Coast pelagic fish landings increased by 22% from 69,223 tonnes in 1977 to 84,633 tonnes in 1978; demersal fish landings increased by 21% from 43,738 tonnes in 1977 to 53,191 tonnes in 1978; and other crustaceans and molluscs (mainly acetes, squids and cuttlefish) increased by 34% from 3,527 tonnes in 1977 to 11,769 tonnes in 1978. Prawns, which are less significant on the East Coast, increased by 26% from 5,597 tonnes in 1977 to 4,531 tonnes in 1978.

Total value of fish landings and cultures (excluding fresh-water fisheries) in 1978 was \$ 1,293 million. Compared to 1977 this is an increase of 56%. This increase in value was due to the increase in landings and the increase in fish prices brought about by the increasing domestic demand for fish.

3. Landings By Major Fisheries:



LANDINGS AND VALUE BY MAJOR FISHERIES

Peninsular Malaysian fisheries are roughly divided into large scale and small scale fisheries. Large scale fisheries consists of purse seines and trawls while all others are small scale traditional fisheries.

The large scale fisheries, which account for 70% of total landings, benefitted from the good season for pelagic fish and prawns this year. The 1978 purse seine fishery landing was 112,634 tonnes which was an increase of 32,799 tonnes or 41% over 1977. The total value of the landings by this fishery was \$324 million.

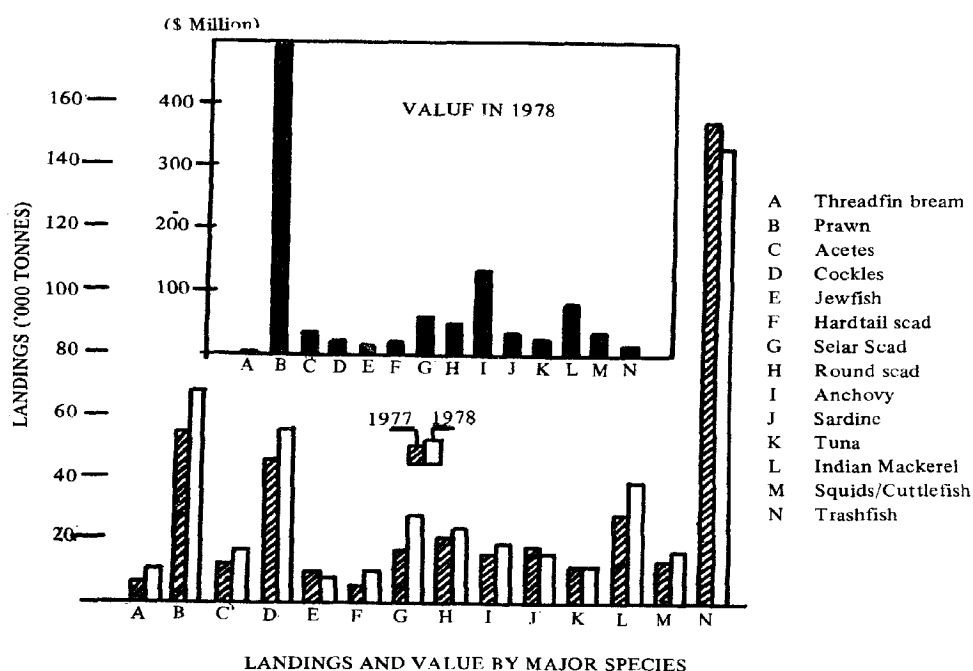
The trawl fishery, which accounts for 50% of total landings, also had a good season in 1978 with total landings increasing by 9% from 261,125 tonnes in 1977 to 285,019 tonnes in 1978. The increase of 9% was mainly brought about by the increase in pelagic fish and prawn landings. The total value of trawl landings in 1978 was \$615 million.

The most significant small scale fishery is the drift/gill net fishery. Drift/gill net landings increased by 29% from 24,504 tonnes in 1977 to 31,508 in 1978. The value of the 1978 landing was \$106 million.

Other less significant small scale fisheries like traps, bagnets, barrier nets, push nets etc. also showed small increases in their 1978 landings. However, the more significant small scale fisheries like liftnets, seines, fishing stakes and hooks and lines had a decrease in landings in 1978 compared to 1977.

The coastal aquaculture production of cockles in 1978 was 55,598 tonnes which was a 19.8% increase over 1977. The value of this year's cockle production was \$22 million.

4. Landings By Major Species:



The 1978 marine landings and cultures composed of 402,996 tonnes of fish, 89,039 tonnes of crustaceans, 72,740 tonnes of molluscs and 123 tonnes of jellyfish.

PELAGIC LANDINGS

This year there were significant increases in pelagic fish landings due to the prevailing good season. The major species selected for mention here are Hardtail scads, Selar scads, Round scads, Anchovies, Sardines, Tuna, Indian mackerels and Squids Cuttlefish. Except for Sardines and Tuna, all the other species increased in landings in 1978 over 1977.

HARDTAIL SCAD Landings increased by 109% from 4,831 tonnes in 1977 to 10,105 tonnes in 1978. By area, the West Coast landed 7,644 tonnes while 2,461 tonnes were landed on the East Coast. The bulk of this species was landed by purse seines, trawls and drift/gillnets. The value of hardtail landings in 1978 was \$21 million.

SELAR SCADS which include the Yellow-tail and Goldbanded scads, increased by 63% from 17,417 tonnes in 1977 to 28,456 tonnes. The West Coast landed 7,948 tonnes while the East Coast landed 20,508 tonnes. Purse Seines landed 65% of this species while the balance was landed by trawls, drift/gill nets, lift nets and hooks and lines. The value of Selar landings in 1978 was \$59 million.

ROUND SCAD landings in 1978 was 23,666 tonnes. Compared to 1977 this was only a 10% increase. There was no significant increase in this species even though the season for pelagic species was generally good. Whereas there was a 32% increase in 1977, this year's 10% increase may indicate that the season for round scads is on the down swing. The West Coast

landings of round scads was 6,025 tonnes while the East Coast landings was 17,641 tonnes. The bulk of this species (88%) was landed by purse seines while the balance by liftnets and other minor gears. The value of round scad landings in 1978 was \$49 million.

ANCHOVY landings in 1978 was 18,539 tonnes which was a 19% increase over 1977. The West Coast landings were 14,882 tonnes while East Coast landings were 3,657 tonnes. Anchovies, which are almost exclusively landed by purse seines, were mainly landed in Kedah, Perak and Trengganu. In terms of value, anchovies have no value in their wet state as they were used for conversion into salted/dried anchovies. The value, after processing, was \$136 million in 1978.

INDIAN MACKEREL landings increased by 36% from 28,531 tonnes in 1977 to 38,767 tonnes in 1978. Whereas the 1977 increase was 58%, this year's increase may indicate a downward trend in landings of this species. The West Coast landings were 23,803 tonnes while the East Coast landings were 14,964 tonnes. Most of the Indian mackerels were landed by purse seines and to a lesser extent by trawlers. The value of Indian mackerel landings in 1978 was \$80 million.

SQUIDS AND CUTTLEFISH landings in 1978 was 16,634 tonnes. This was an increase of 22% over 1977. The West Coast landings were 11,778 tonnes while for the East Coast it was 4,856 tonnes. The bulk of squids and cuttlefish (95%) was landed by trawlers. Total value of their landings in 1978 was \$34 million.

Among the dominant pelagic species which showed a decrease in 1978 were sardines and tuna.

SARDINE landings has been on the decrease since 1977. Whereas the decrease in 1977 was 13%, this year's landings of 16,181 tonnes is a further decrease by 12% over 1977. This decrease in landings in 1978 was only on the West Coast where landings declined by 4,593 tonnes from 9,833 tonnes in 1977 to 5,240 tonnes in 1978. East Coast sardine landings, however, increased from 8,582 tonnes in 1977 to 10,941 tonnes in 1978. Most of the sardines were landed by purse seines, trawlers and liftnets. The value of the 1978 sardine landings was \$33 million.

TUNA which composes of the Northern bluefin tuna, bonito and Longtail tuna, also showed a small decrease in landings of 2% from 12,446 tonnes in 1977 to 12,147 tonnes in 1978. The bulk of these tuna were landed on the East Coast (8,957 tonnes) while the balance were landed on the West Coast. These tuna species were mainly landed by purse seines, hooks and lines and drift/gill nets. Value of tuna landings in 1978 was \$25 million.

DEMERSAL LANDINGS

With the exception of trash fish and Jewfish, all the other dominant demersal species showed an increase in 1978 over 1977. These were threadfin breams, prawns and acetes.

THREADFIN BREAMS mainly landed by trawlers, amounted to 10,656 tonnes in 1978. This was a 75% increase over the 1977 landings of 6,103 tonnes. The West Coast landings amounted to 4,920 tonnes while the East Coast landings were 5,736 tonnes. The value of threadfin bream landings in 1978 was \$1.3 million.

PRAWN landings in 1978 amounted to 67,548 tonnes which was a 24% increase over 1977. Being the mainstay of the trawl fishery, 72% of the 1978 landings were by trawlers while the balance were landed by seines, bagnets and drift/gill nets. The 24% increase in landings this year could be possibly due to the intensification of the trawl fishing effort brought about by rising production costs, especially diesel fuel prices. Prawns, because of their value, is vital to the survival of the trawl fishery. The bulk of the prawn landings were on the West Coast totalling 63,017 tonnes, while the balance of 4,531 tonnes was landed on the East Coast. The disparity in quantity landed between the two coasts is because the bulk of the trawl fleet is on the West Coast and also because the West Coast prawn fishery is an all the year round fishery. The East Coast, on the other hand, has a smaller trawl fleet and also the prawn fishery is seasonal, appearing mainly during the northeast monsoon period. The total value of prawn landings in 1978 was \$496 million.

ACETES, a kind of tiny shrimps, caught mainly by bagnets and fishing stakes amounted to 16,772 tonnes in 1978. This was an increase of 42% over 1977. Acetes is mainly used in the production of a shrimp paste called "belacan" and a pickled paste called "cincalok". The total value of acetes landings in 1978 was \$35 million.

JEWFISH, mainly landed by trawlers, was one of the dominant demersal species which showed a decline in 1978. The total quantity landed in 1978 was 8,484 tonnes valued at \$18 million. Compared to the 10,060 tonnes in 1977, this year's landing shows a decrease of 16%. The bulk of Jewfish was landed on the West Coast (6,322 tonnes) while the balance was landed on the East Coast (2,162 tonnes).

TRASHFISH landings in 1978 was 146,561 tonnes, which was 26% of total landings. Compared to 1977, this year's landing showed a decrease of 5%. This decrease is significant because this is the first time trash-fish landings declined inspite of an overall increase in total landings. The decline in trashfish landings occurred only on the West Coast where landings declined by 8.5% from 135,324 tonnes in 1977 to 123,893 tonnes in 1978. East Coast landing, however, increased by 15% from 19,671 tonnes in 1977 to 22,668 tonnes in 1978. But because the West Coast accounts for 85% of total trashfish landings, there was an overall decline in landings when the West Coast landings decreased. This decline on the West Coast has serious implications because trashfish, which is mainly juvenile edible fish and amounting to 69% of total demersal landings, may indicate a decrease in West Coast demersal fish resources.

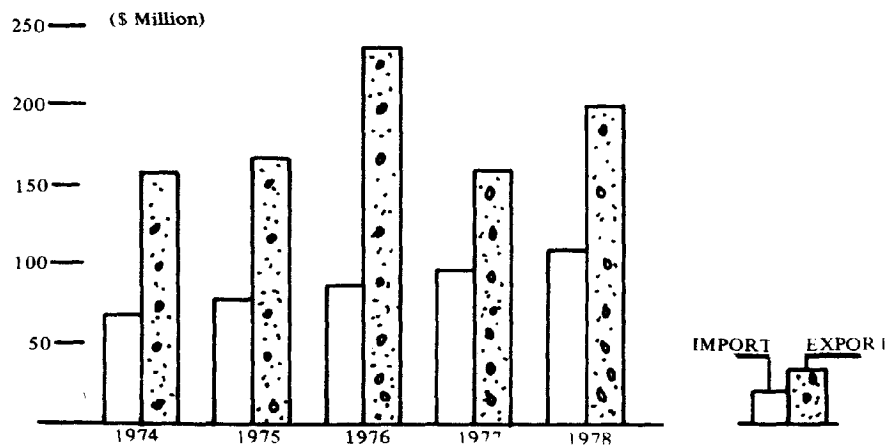
As trashfish is mainly a by-catch of trawling, trawlers landed 88% of the total trashfish landings while the balance was landed by bagnets, seines and other minor fisheries. The value of trashfish landings was \$18 million in 1978.

CULTURES

The marine coastal aquaculture of cockles produced 55,598 tonnes of blood cockles which was a 19.8% increase over 1977. Cockles are only cultured on the West Coast and Perak being the most important centre produced 84% of the total production in the country. The value of cockles produced in 1978 was \$22 million.

5. Imports And Exports of Fishery Commodities:

Both imports and exports increased in 1978 over 1977. As imports were mainly cheaper fishery commodities while exports were largely fishery commodities of higher value, there was thus a surplus trade balance in fishery commodities favourable to Peninsular Malaysia in 1978 in value terms.

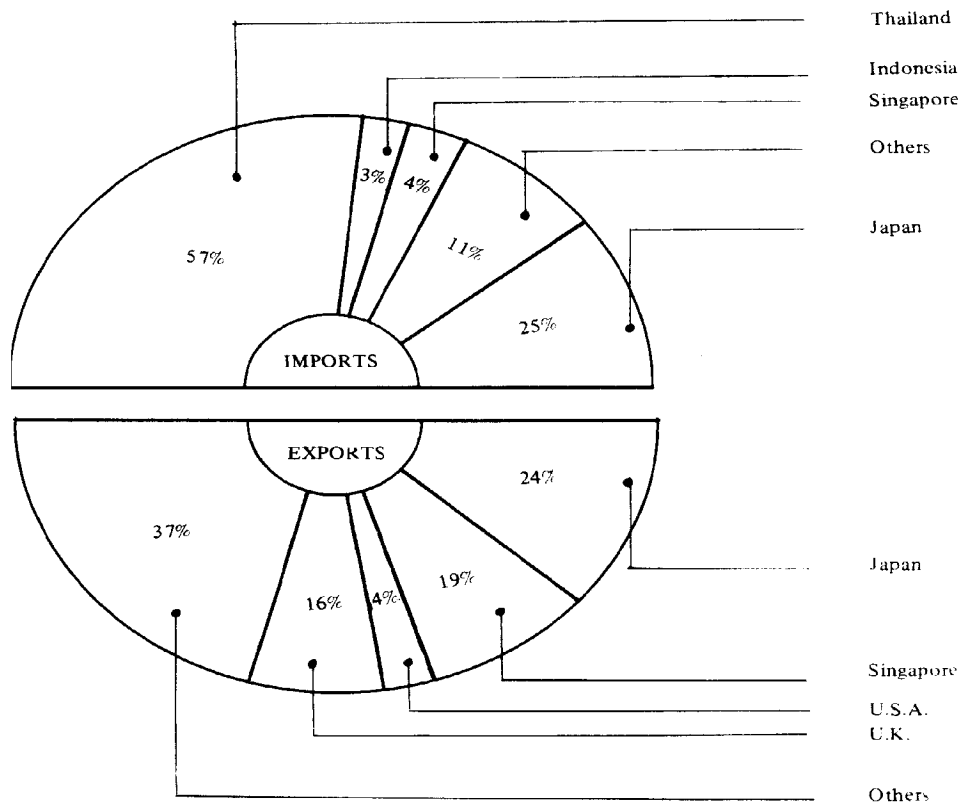


IMPORTS

Imports of fishery commodities have been increasing for the last five years. This was so because domestic fish landings have been unable to meet the growing domestic demand. Total imports in 1978 was about \$110 million which was 15.3% more than that of 1977. The bulk of the imports were fresh, chilled or frozen fish, prawns, other crustaceans and molluscs which together accounted for 46% of total imports. Of these, fish alone accounted for 34% of total imports while prawns accounted for 9% of total imports and the other crustaceans and molluscs made up the remaining 3%. Besides fresh, chilled and frozen fish, crustacea and molluscs, the next most important commodity was canned fish, crustacea and molluscs which together accounted for 25% of total imports. Among the non-edible commodities, the most important was fishmeal which accounted for 15% of total imports. The major exporting countries to Peninsular Malaysia in 1978 were Thailand and Japan. Whereas the bulk of Thai Exports to this country were fresh or chilled fish, crustacea and molluscs, the Japanese exports were largely canned fish products.

EXPORTS

Exports of fishery commodities amounted to more than \$200 million in 1978. Compared to 1977 this was an increase of 25.3%. The bulk of the export were fresh, chilled or frozen fish, prawns and other crustaceans and molluscs which together accounted for 71% of total exports. Of these, prawns alone accounted for 51% of total exports while fish and other crustaceans and molluscs accounted for 12% and 8% of total exports respectively. The major importing countries from Peninsular Malaysia were Singapore, Japan and the United Kingdom. Whereas the exports to Singapore were largely fresh or chilled fish, prawns and molluscs, the exports to Japan and the United Kingdom were mainly frozen prawns, frozen fish and other frozen crustaceans and molluscs.



Peninsular Malaysia: Imports-Exports Of Fishery Commodities By Countries Of Origin And Destination

SARAWAK

1. Landings In 1978:

For the first time since 1972 Sarawak's marine fisheries and cultures (excluding freshwater fisheries) showed a decline in landings in 1978. This year's landings of 77,512 tonnes was 5,783 tonnes or 7% less than that of last year. This decline was brought about by the decline in jellyfish landings in 1978. The decline in jellyfish landings, though offset by increases in other fisheries, is the main reason for the decrease in 1978 landings.

2. Landings By Major Fisheries:

The major fisheries in Sarawak are the trawl and drift/gillnet fisheries. However, in 1977 the push/scoop/liftnet fishery gained importance because of the abundance of jellyfish landed by this fishery. With the decline in jellyfish landings this year, this fishery declined to its original status as a minor fishery.

The trawl fishery accounted for 68% of total landings in 1978. Similar to Peninsular Malaysia, it is the main fishery here. Trawl landings in 1978 was 52,439 tonnes which when compared to last year, was a 15% increase. Whereas it only gained a 4% increase in 1977, this year's gain of 15% indicates the increasing importance of this fishery.

The drift/gillnet fishery, which accounted for 17% of total landings in 1978, retained its status as the second most important fishery. The landings by this fishery in 1978 was 13,139 tonnes which was a 14% decrease over 1977. However, whereas the decrease in 1977 was 27%, this year's decrease of 14% indicates an improvement in this fishery.

Besides the trawls and drift/gillnets, all other fisheries are minor fisheries which together accounted for 15% of total landings in 1978. With the exception of the push/scoop/liftnet fishery, all the other minor fisheries showed insignificant changes in 1978. The push/scoop/liftnet fishery, which in 1977 accounted for about 17% of total landings, accounted for only 2% of total landings this year. This was so because the main catch of this fishery in 1977 was jellyfish which appeared in great abundance. But with the decline in jellyfish landings in 1978, the landings of this fishery decreased from 13,720 tonnes in 1977 to 1,223 tonnes in 1978 and along with it the importance of this fishery also declined to its pre-1977 status.

3. Landings By Major Species:

The 1978 landings composed of 60,617 tonnes of fish, 14,930 tonnes of crustaceans, 874 tonnes of molluscs and 1,091 tonnes of jellyfish.

Similar to Peninsular Malaysia, the number of fish species in Sarawak is numerous. As such only the dominant species are highlighted here. With the exception of jellyfish, all the other dominant species showed an increase in 1978 as compared to last year.

The biggest group, quantity wise, was trashfish landed mainly by trawlers. Trashfish landings increased by 10% from 12,480 tonnes in 1977 to 13,761 tonnes in 1978. Compared to the

4% increase in 1977 this year's increase of 10% was mainly due to increased trawling activities in the region.

Unsorted and unidentified fishes are also an important by-catch of trawling. Though most other fisheries also land this group of fishes, the biggest quantity however is landed by the trawlers. Total landings of this group in 1978 was 9,966 tonnes which when compared to the 1977 landing of 10,473 tonnes indicates a drop of 5%.

The 1978 landings of prawns was 14,210 tonnes which when compared to 1977 was an increase by 50%. Though prawns are landed by a variety of gears, the bulk of prawns are landed by the trawlers. Whereas there was a decline of 8% in prawns landings in 1977, this year's increase of 50% augers well for the industry. This is because prawns, by their value, is an important source of sales revenue both domestically and export-wise.

Marine catfish and jewfish, both common trawl species, increased by 177% and 22% respectively in 1978 over 1977. Marine catfish landings in 1978 was 4,294 tonnes while jewfish landings was 3,513 tonnes.

Among the pelagic species, the most dominant species is the Spanish mackerel. Total Spanish mackerel landing in 1978 was 3,750 tonnes which is a 43% increase over last year.

The biggest decrease in 1978 was in jellyfish which dropped from 16,040 tonnes in 1977 to a mere 1,091 tonnes in 1978. Jellyfish is seasonal and 1977 was an exceptionally good year. The quantity of landings in 1978 is similar to the pre-1977 landings of jellyfish. The decline in jellyfish affected not only the push/scoop/liftnet operators but also the jellyfish processors who had invested in jellyfish processing centres in 1977. The decline in jellyfish also denied Sarawak fisheries a good source of foreign exchange as the bulk of the jellyfish processed was exported.

4. Imports And Exports Of Fishery Commodities:

Despite of having a small population and reasonable abundance of fish resources, Sarawak is still a net importer of fish, quantity-wise, in 1978. The total import of fish and fisheries products into Sarawak in 1978 was 2,022 tonnes valued at about \$5 million. Total exports for the same period was 1,819 tonnes valued at more than \$9 million. Thus, in value terms, Sarawak was a net exporter and this was mainly due to the high price of prawns which are mainly exported.

Generally, there was decline in the foreign fish trade this year, both in volume and in value, as compared to last year. Imports declined by about 60% quantity-wise and 58% value-wise; exports declined 41% quantity-wise and 155% value-wise.

SABAH

1. Landings in 1978.

During the last 10 years, Sabah's fish landings and cultures have been continuously increasing with the exception of 1976 when there was a slight decrease. The bulk of the landings is landed on the East Coast of Sabah facing the Sulu and Celebes Seas where the fisheries is more developed.

Total landings and cultures in 1978 were 41,600 tonnes which was a 15% increase over 1977. The value of this landing was \$107 million. Marine fish landings alone accounted for 40,100 tonnes valued at \$103 million while freshwater fish production amounted to 1,500 tonnes valued at \$4 million.

The rate of increase in 1978 was more or less similar to 1977 indicating a stable fishery with no exceptional developments in 1978.

2. Landings By Major Species:

The 1978 landings and cultures composed of 28,800 tonnes of marine fish, 9,000 tonnes of crustaceans, 1,600 tonnes of molluscs, 700 tonnes of other aquatic plants and animals and 1,500 tonnes of freshwater fish.

Among the dominant species groups which showed a significant increase in 1978 over 1977 were Mackerels, Bill fishes etc., Redfishes, Basses, Congers etc. and Crustaceans (mainly prawns).

Jacks and Mulletts were the only significant species group which showed a decline in 1978.

The 1978 landings of Mackerels, Bill fishes etc. showed a significant increase of 49% from 7,400 tonnes in 1977 to 11,000 tonnes in 1978. Their total 1978 value was \$24 million.

The total landings of Redfishes, Basses, Congers etc. in 1978 was 7,300 tonnes which when compared to the 1977 landings of 6,500 tonnes is an increase of 12%. The total value of this species group was \$14 million in 1978.

The bulk of the crustacean group is prawns which is the most important commercial marine landing in Sabah. The 1978 landings of 9,000 tonnes when compared to the 6,000 tonnes in 1977 is a 50% increase. The total value of crustaceans in 1978 was \$44 million.

The species group which had a significant decrease in 1978 were the Jacks and Mulletts. Their total landings decreased from 7,900 tonnes in 1977 to 5,700 tonnes in 1978 – a decrease of 28%. The total value of the 1978 landings was \$13 million.

3. Imports And Exports Of Fishery Commodities:

Total domestic consumption of fish in 1978 for Sabah was 42,994 tonnes. As domestic

production was only 41,600 tonnes, Sabah was a net importer, in quantity terms, in 1978. However this unfavourable balance of trade in quantity terms was offset by the high value of her exports whereby in value terms she had a surplus balance of trade of \$22.9 million.

Total fisheries imports into Sabah in 1978 was 5,195 tonnes valued at \$11.8 million, while total fisheries exports from Sabah was 3,801 tonnes valued at \$34.7 million for the same period. Compared to 1977, imports in 1978 increased by 1,109 tonnes and by \$1.6 million. Exports on the other hand decreased by 1,925 tonnes and by \$1.6 million also.

Thus though there was no change in imports and exports in value terms, in terms of quantity, imports increased while exports decreased. Such a situation of increasing imports and decreasing exports indicates a rising domestic demand for fish.

The main imports in 1978 into Sabah were canned fish, canned crustaceans, canned molluscs and canned prawn paste. The total value of these products imported alone was worth \$9 million or 76% of total fisheries imports.

The main exports were fresh/frozen prawns (\$31.1 million), fresh/chilled prawns (\$0.74 million) and frozen marine fish (\$1.7 million). The total value of prawns exported alone was \$31.84 million or about 92% of total fisheries exports in 1978.