

## CHAPTER 2

### VIETNAM SHRIMP IN WORLD SHRIMP PRODUCTION AND TRADE

This chapter aims to overview global shrimp production and marketing as well as the situation in Vietnam. The shrimp industry in Vietnam is not overviewed separately to that of the world; on the contrary, it is put in the world context in order to see clearly the global position of Vietnamese shrimp production and trade.

#### 2.1 Shrimp production

Shrimp production-that is captured and aquacultured-has expanded over the past decade from 1.94 million metric tons in 1984 to 3.83 million metric tons in 1998 (Table 2.1). The main shrimp producing country is China (971 thousand metric tons), followed by Indonesia (395 thousand metric tons), India (385 thousand metric tons), Thailand (368 thousand metric tons), and Vietnam with a production of 196 thousand metric tons. China has been always at the top of shrimp production. India experienced some ups-and-downs during the period, but continues to hold a strong third position among the main producing countries. Vietnam recently entered the top group and was the fifth largest shrimp producing country, prompted by its growing shrimp cultural industry (Table 2.2).

Total world shrimp production in 1998 was 3,827 thousand tons. 29.1% of the total shrimp production in 1998 was from the shrimp aquaculture. However, the growth rate of the cultured shrimp production was 15.4% compared with 3.2% from captured production (Table 2.1). Bangladesh had the highest growth rate, followed by Ecuador, China, and Vietnam (Sriboonchitta *et al.*, 2000).

Table 2.1 Production quantity of shrimp from capture and aquaculture

Year	Production (1,000metric tons)			Ratio (%)			
	Aquaculture	Capture	Total	Aquaculture	Capture	Total	
1984	172	1,770	1,942	8.9	91.1	100.0	
1985	214	1,957	2,171	9.8	90.2	100.0	
1986	320	1,977	2,297	13.9	86.1	100.0	
1987	494	1,941	2,435	20.3	79.7	100.0	
1988	576	1,999	2,575	22.4	77.6	100.0	
1989	621	1,960	2,581	24.0	76.0	100.0	
1990	672	1,968	2,640	25.5	74.5	100.0	
1991	832	2,055	2,887	28.8	71.2	100.0	
1992	890	2,113	3,003	29.6	70.4	100.0	
1993	848	2,082	2,930	28.9	71.1	100.0	
1994	891	2,287	3,178	28.0	72.0	100.0	
1995	952	2,337	3,289	28.9	71.1	100.0	
1996	960	2,455	3,415	28.1	71.9	100.0	
1997	1,001	2,600	3,601	27.8	72.2	100.0	
1998	1,114	2,713	3,827	29.1	70.9	100.0	
Growth rate*	15.4	3.2	5.0	Average*	23.6	76.4	100.0

Source: FAO Fisheries Department, 2000. \* (Sriboonchitta et al., 2000).

Table 2.2 Production quantity of shrimp by major producing countries 1984 -1998

Unit: 1,000 metric ton

Year	Bangladesh	China	Ecuador	India	Indonesia	Mexico	Thailand	Vietnam	Other	World
1984	8	249	40	213	137	76	136	47	1,036	1,942
1985	11	367	36	245	149	75	126	50	1,111	2,170
1986	15	427	53	229	163	73	139	58	1,140	2,297
1987	15	458	79	212	195	84	150	69	1,174	2,436
1988	17	584	83	216	237	73	165	80	1,121	2,576
1989	18	502	78	226	248	77	203	79	1,150	2,581
1990	19	532	85	246	258	62	224	83	1,130	2,639
1991	20	564	119	300	297	71	290	93	1,134	2,888
1992	21	574	127	290	311	66	301	95	1,217	3,002
1993	29	489	97	291	301	80	343	102	1,198	2,930
1994	29	605	99	370	320	77	385	110	1,183	3,178
1995	34	665	112	324	332	86	389	119	1,227	3,288
1996	49	752	113	335	343	79	371	129	1,244	3,415
1997	56	830	138	366	382	88	351	178	1,212	3,601
1998	66	971	150	385	395	90	368	196	1,207	3,828
Growth rate*	16.9	11.2	11.7	4.9	8.1	1.8	7.8	11.1	1.2	5.0

Source: FAO Fisheries Department, 2000. \* (Sriboonchitta et al., 2000).

Table 2.3 Shares of total production of major producing countries 1984 –1998

Unit: %

Year	Bangladesh	China	Ecuador	India	Indonesia	Mexico	Thailand	Vietnam	Other	World
1984	0.4	12.8	2.1	11.0	7.1	3.9	7.0	2.4	53.3	100.0
1985	0.5	16.9	1.7	11.3	6.9	3.4	5.8	2.3	51.2	100.0
1986	0.6	18.6	2.3	10.0	7.1	3.2	6.1	2.5	49.6	100.0
1987	0.6	18.8	3.2	8.7	8.0	3.4	6.2	2.8	48.2	100.0
1988	0.6	22.7	3.2	8.4	9.2	2.8	6.4	3.1	43.5	100.0
1989	0.7	19.5	3.0	8.8	9.6	3.0	7.9	3.1	44.6	100.0
1990	0.7	20.2	3.2	9.3	9.8	2.4	8.5	3.2	42.8	100.0
1991	0.7	19.5	4.1	10.4	10.3	2.4	10.0	3.2	39.3	100.0
1992	0.7	19.1	4.2	9.7	10.4	2.2	10.0	3.1	40.5	100.0
1993	1.0	16.7	3.3	9.9	10.3	2.7	11.7	3.5	40.9	100.0
1994	0.9	19.0	3.1	11.7	10.1	2.4	12.1	3.5	37.2	100.0
1995	1.0	20.2	3.4	9.8	10.1	2.6	11.8	3.6	37.3	100.0
1996	1.4	22.0	3.3	9.8	10.0	2.3	10.9	3.8	36.4	100.0
1997	1.6	23.0	3.8	10.2	10.6	2.5	9.7	4.9	33.6	100.0
1998	1.7	25.4	3.9	10.1	10.3	2.4	9.6	5.1	31.5	100.0
Average	0.9	19.6	3.2	9.9	9.3	2.8	8.9	3.3	42.0	100.0

Source: Sriboonchitta et al., 2000.

In terms of production share, the leading country was China with average production share of 19.6% during the period 1984 to 1998, followed by India with 9.9%, Indonesia with 9.3%, and Thailand with 8.9%. Vietnam ranked the fifth with 3.3% of shrimp production share (Table 2.3).

### 2.1.1 Shrimp aquaculture

The world's production of aquacultured shrimp is dominated by developing countries located in the tropical latitudes. Seven countries produced about 86% of the aquacultured shrimp production in 1995-six Asian and one Latin American (Thailand, China, Vietnam, India, Indonesia, Bangladesh, and Ecuador). Regionally, Asia produces nearly four-fifths of the world's aquacultured shrimp output, with Latin

American countries providing the rest. Shrimp farms throughout Asia harvested 558,000 metric tons in 1995, accounting for 78% of the world's aquacultured shrimp production. By comparison, the shrimp aquacultural industry in the Western Hemisphere, led by Ecuador's annual output of 100,000 metric tons, produced a regional total of 154,000 metric tons. In 1995 about 712,000 metric tons of shrimp were produced in farms, approximately 26% of the world's total shrimp production (Hagler *et al.*, 1997).

In total, about 1,114 thousand metric tons of shrimp were produced in farms in 1998, roughly 29.1% of the world's total shrimp production (Table 2.1). Thailand has been the world's leading producer of farmed shrimp for the past few years, producing 244 thousand metric tons of farmed shrimp in 1998, twice as much as it produced in 1990, and nearly one-third of the world's entire 1998 farmed shrimp production. Vietnam had occupied the fourth top rank in 1997 with 108 thousand metric tons. In 1998, its shrimp aquaculture production continued to increase at 116 thousand metric tons; however, its position changed to fifth (Table 2.4).

World shrimp aquaculture production stabilized at 800,000 metric tons in the 1990s, while the late 1980s was characterized by strong increases. Disease problems like the one now being experienced by Central and Southern America, led to the sudden decline of Chinese production in 1993, Thai production in 1996 and 1997 and Ecuadorian production in 1999. It is very unlikely that shrimp aquaculture production will increase very much beyond the 800,000 metric tons mark in the near future (Josupeit, 1999a).

Considering only cultured shrimp production share, Thailand had the highest share in 1998 at 21.9% but its average share from 1984-1998 was the second after China (Table 2.5). Vietnam was the fifth country in the world with the share of shrimp production from aquaculture of 10.4% in 1998. However, it ranked sixth in terms of average share from 1984-1998 with 5.4%.

Table 2.4 Shrimp aquaculture in the world

Unit: 1,000 metric ton

Countries	1990	1991	1992	1993	1994	1995	1996	1997	1998
Thailand	119.5	162.1	184.9	225.3	265.5	260.7	240.3	227.6	243.8
Indonesia	107.3	140.1	141.7	138.8	135.1	146.6	151.8	167.4	168.5
Ecuador	76.4	105.2	113.1	83.4	88.7	105.6	107.9	132.7	144.0
China	184.7	219.6	206.9	87.9	63.9	78.4	88.9	102.9	143.1
Vietnam	31.0	35.6	37.8	42.0	45.0	52.0	60.0	108.0	116.0
India	30.0	35.5	40.0	72.2	91.2	97.5	95.2	65.6	81.1
Others	123.0	134.1	165.3	197.9	201.3	210.7	216.0	196.3	217.4
Total	671.9	832.2	889.7	847.7	890.7	951.6	960.1	1,000.5	1,113.9

Source: *Fishery Trade Magazine 3/2001 (cited by Thu, 2002).*

Table 2.5 Shares of shrimp production from aquaculture of major producing countries 1984-1998

Unit: %

Year	Bangladesh	China	Ecuador	India	Indonesia	Mexico	Thailand	Vietnam	Other	World
1984	4.8	11.2	19.5	5.8	18.6	0.0	7.5	4.6	27.9	100.0
1985	5.3	19.0	14.1	6.1	17.6	0.0	7.4	3.7	26.7	100.0
1986	4.6	25.9	13.6	4.4	13.1	0.0	5.6	4.1	28.7	100.0
1987	3.0	31.0	14.0	3.0	11.9	0.1	4.8	3.8	28.3	100.0
1988	2.9	34.6	12.9	3.5	13.5	0.1	9.7	4.8	18.1	100.0
1989	2.9	30.0	11.3	4.5	15.9	0.5	15.1	4.5	15.4	100.0
1990	2.8	27.5	11.4	4.5	16.0	0.7	17.8	4.6	14.9	100.0
1991	2.3	26.4	12.6	4.3	16.8	0.6	19.5	4.3	13.1	100.0
1992	2.4	23.3	12.7	4.5	15.9	0.9	20.8	4.2	15.3	100.0
1993	3.4	10.4	9.8	8.5	16.4	1.4	26.6	5.0	18.6	100.0
1994	3.2	7.2	10.0	10.2	15.2	1.5	29.8	5.1	17.9	100.0
1995	3.6	8.2	11.1	10.3	15.4	1.7	27.4	5.5	16.9	100.0
1996	5.1	9.3	11.2	9.9	15.8	1.4	25.0	6.2	16.0	100.0
1997	5.6	10.3	13.3	6.6	16.7	1.7	22.7	10.8	12.2	100.0
1998	5.9	12.8	12.9	7.3	15.1	2.1	21.9	10.4	11.5	100.0
Average	3.9	19.1	12.7	6.2	15.6	0.8	17.4	5.4	18.8	100.0

Source: *Sriboonchitta et al., 2000.*

### 2.1.2 Aquacultural shrimp species

Black Tiger shrimp (*Penaeus monodon*) is the most widely distributed and marketed species in the world. Harvests occur along coastlines in an eastward arc, stretching from the southern tip of Africa almost to the Sea of Japan. Black Tiger shrimp accounted for more than 50% of total global shrimp aquaculture in late 1990s and more than 60% in mid-1990s (Table 2.6).

Black Tiger shrimp is by far the most cultured species in the world. These shrimp are easy to farm, because they are quite adaptable and thrive in a wide range of environments. However, recent disease problems have reduced the output. Black Tiger shrimp production peaked at almost 600,000 metric tons in 1995 (Table 2.6), and has since declined. On the other hand, the production of White shrimp from Ecuador has been expanding until recently. The *Penaeus chinensis*, which used to be the main farmed shrimp in the mid-1980s, lost its position in recent years, again due to disease problems, which almost wiped out Chinese production (Josupeit, 1999b). It should be noticed that several other kinds of shrimp, for instance Flower, Pink, Brown, Poovalan, and Karkadi are reared in aquacultural systems.

Considering the production quantity of Black Tiger shrimps (Table 2.7), Thailand had the highest growth rate during period of 1984–1998 with 104.8%, followed by India with 53.8%, Vietnam with 23.1%, Indonesia with 13.9% and so on. In 1998, Vietnam harvested 87,000 metric tons of Black Tiger shrimp and it ranked fourth in the world after Thailand with 242,000 metric tons, India with 208,725 metric tons, and Indonesia with 128,050 metric tons.

Table 2.6 Shrimp aquaculture and Black Tiger shrimp of the world

Year	Shrimp aquaculture	Black Tiger shrimp	
	(1,000 MT)	Quantity (1,000MT)	%
1989	620.50	257	41.45
1990	672.00	288	42.86
1991	832.18	375	45.07
1992	889.68	438	49.27
1993	847.70	514	60.68
1994	890.69	576	64.72
1995	951.59	596	62.67
1996	960.05	576	60.00
1997	1,000.57	531	53.10
1998	1,113.89	557	51.84

Source: Fisheries Information Centre (Ficen)-Ministry of Fisheries, Vietnam (cited by Thu, 2002).

Table 2.7 Production quantity of Black Tiger shrimps of major producing countries

Unit: 1,000 metric ton

Year	India	Indonesia	Philippines	Taiwan	Thailand	Vietnam	Other	World
1984	10	25	26	12	0.5	6	0.2	80
1985	13	24	27	18	0.4	6	0.5	89
1986	14	30	28	46	1	10	0.8	130
1987	15	36	32	80	11	14	1	189
1988	109	57	42	31	41	21	2	303
1989	110	76	44	17	82	21	8	358
1990	123	79	48	9	108	23	8	398
1991	155	111	46	10	155	27	10	514
1992	171	114	76	11	180	28	11	591
1993	175	103	86	9	220	32	12	637
1994	220	100	92	7	260	34	15	628
1995	176	114	89	11	257	39	18	704
1996	150	116	77	12	238	45	20	658
1997	195	122	41	5	226	81	23	693
1998	209	128	37	5	242	87	29	737
Average*	53.8	13.9	5.3	7.7	104.8	23.1	50.4	18.7

Source: FAO Fisheries Department, 2000. \* (Sriboonchitta et al., 2000).



Table 2.8 Shares of Black Tiger shrimp production of major producing countries

Unit: %

Year	India	Indonesia	Philippines	Taiwan	Thailand	Vietnam	Other	World
1984	12.5	30.8	33.1	15.1	0.7	7.5	0.3	100.0
1985	14.8	26.8	30.2	20.2	0.5	6.8	0.5	100.0
1986	10.8	22.9	21.7	35.5	0.9	7.6	0.6	100.0
1987	7.9	18.9	17.0	42.3	5.7	7.5	0.7	100.0
1988	36.1	18.7	13.7	10.3	13.6	6.8	0.7	100.0
1989	30.9	21.2	12.2	4.8	22.9	5.9	2.1	100.0
1990	30.8	19.9	12.0	2.3	27.2	5.8	2.0	100.0
1991	30.2	21.5	8.9	2.0	30.2	5.2	1.9	100.0
1992	28.9	19.3	12.9	1.8	30.4	4.8	1.9	100.0
1993	27.4	16.2	13.5	1.4	34.6	4.9	1.9	100.0
1994	30.2	13.8	12.6	1.0	35.7	4.6	2.0	100.0
1995	25.0	16.2	12.7	1.6	36.5	5.5	2.6	100.0
1996	22.9	17.6	11.7	1.9	36.1	6.8	3.0	100.0
1997	28.1	17.6	5.9	0.8	32.6	11.7	3.3	100.0
1998	28.3	17.4	5.1	0.7	32.8	11.8	4.0	100.0
Average	24.3	19.9	14.9	9.4	22.7	6.9	1.8	100.0

Source: Sriboonchitta et al., 2000.

Regarding the Black Tiger shrimp production share (Table 2.8), Vietnam had an average share of 6.9% during period 1984-1998 and ranked sixth in the world. This reflects that Black Tiger shrimp production in Vietnam developed rapidly only in the late 1990s, and this development has changed its share from 7.5% in 1984 to 11.8% in 1998.

## 2.2 Shrimp trade

### 2.2.1 World shrimp export

Thailand is the world's major shrimp exporter, however in 1997, Thai shipments collapsed as a result of diseases. During that year, Thai shrimp exports were 125,000

metric tons, about half the previous year's exports. In 1998, the disease problem was brought under control, and Thai exports returned to normal. In 1997, Indian shrimp export was about stable at 100,000 metric tons. In 1998, this figure declined as a result of the European Union (EU) ban, however in 1999, shrimp trade returned to normal. Ecuador expanded its exports of shrimp in the years under review, especially 1998, which was a very positive year for the Ecuadorian shrimp trade. In 1999, however, exports were curtailed by disease problems. Indonesian exports were stable around 80,000 metric tons during period of 1988 to 1997. In 1998 and 1999 exports of shrimp were down, as a result of the Asian economic crisis and also due to some disease problems experienced. The first four shrimp exporting countries are all developing countries exporting tropical shrimp. Thailand and Indonesia mainly sell Black Tiger shrimp from aquaculture, while Ecuador sells White shrimp, also from shrimp farms. India still exports captured shrimp, but the share of cultured shrimp in its exports is expanding (Josupeit, 1999c).

Among the export shrimp commodities, frozen shrimp is the commodity that has the highest trade value in the world. The state of frozen shrimp in the world is depicted in Table 2.9.

Table 2.9 Export quantity of frozen shrimp of the world

Year	Quantity (1,000MT)	USD billion	Average price (USD/kg)
1993	968	6.92	7.15
1994	1,048	8.20	7.78
1995	978	8.44	8.62
1996	1,007	7.88	7.82
1997	1,011	8.15	8.05
1998	1,131	8.13	7.18

Source: Fisheries Information Centre (Ficen)-Ministry of Fisheries, Vietnam (cited by Thu, 2002).

The export quantity of frozen shrimp fluctuated in the first half of the 1990s. However, it was stable in the second half of this decade at a level of about one thousand metric tons.

Table 2.10 Export quantity of frozen shrimps of major exporting countries

Unit: 1,000 metric ton

Year	Bangladesh	China	Ecuador	India	Indonesia	Mexico	Thailand	Vietnam	Other	World
1984	15	14	19	55	26	34	19	12	258	452
1985	22	10	20	50	28	30	24	16	283	483
1986	17	32	31	52	34	32	29	19	335	581
1987	20	64	49	52	41	35	54	22	358	695
1988	20	106	50	56	53	21	43	31	361	741
1989	21	95	47	62	68	26	69	22	349	759
1990	26	119	58	62	85	18	80	30	392	870
1991	22	86	80	83	85	17	116	41	371	901
1992	24	90	84	78	82	17	134	48	370	927
1993	25	64	71	96	85	24	142	55	389	951
1994	31	61	72	110	84	31	179	63	407	1,038
1995	28	47	86	98	77	37	166	39	386	964
1996	28	35	86	111	80	36	152	39	428	995
1997	31	43	109	105	78	36	128	45	428	1,003
1998	23	39	114	101	124	47	147	47	472	1,114
Average*	5.2	20.1	15.5	5.2	13.1	4.9	18.8	13.2	4.7	6.9

Source: FAO Fisheries Department, 2000. \* (Sriboonchitta et al., 2000).

The global export quantity of frozen shrimps in 1998 was 1,113,910 metric tons, an increase of 2.5 times the figure for 1984 (450,864 metric tons). During this period, Thailand dominated the global exported frozen shrimp market with a share of 10.9%, followed by India with 9.4%, Indonesia with 8.0%, Ecuador with 7.4% and China with 7.2%. Vietnam was in sixth position with 4.1% during the period 1984 to 1998. Vietnam's competitors in the frozen shrimp export market are Thailand, India, Indonesia, Ecuador, and China.

Table 2.11 Shares of frozen shrimp export of major exporting countries

Unit: %

Year	Bangladesh	China	Ecuador	India	Indonesia	Mexico	Thailand	Vietnam	Other	World
1984	3.2	3.0	4.2	12.2	5.8	7.5	4.3	2.6	57.1	100.0
1985	4.6	2.1	4.2	10.3	5.8	6.3	5.0	3.3	58.5	100.0
1986	3.0	5.5	5.3	9.0	5.8	5.5	4.9	3.3	57.7	100.0
1987	2.9	9.2	7.0	7.4	5.9	5.1	7.8	3.1	51.6	100.0
1988	2.7	14.3	6.7	7.6	7.2	2.8	5.8	4.1	48.8	100.0
1989	2.7	12.6	6.2	8.2	8.9	3.4	9.1	2.8	46.1	100.0
1990	3.0	13.7	6.7	7.1	9.8	2.0	9.2	3.5	45.1	100.0
1991	2.5	9.5	8.8	9.3	9.4	1.9	12.8	4.5	41.1	100.0
1992	2.6	9.7	9.1	8.4	8.9	1.8	14.5	5.2	39.8	100.0
1993	2.6	6.8	7.5	10.1	9.0	2.5	14.9	5.8	40.9	100.0
1994	3.0	5.9	6.9	10.6	8.1	3.0	17.2	6.1	39.2	100.0
1995	2.9	4.9	9.0	10.2	8.0	3.8	17.2	4.0	40.1	100.0
1996	2.8	3.5	8.6	11.1	8.0	3.6	15.3	3.9	43.1	100.0
1997	3.1	4.3	10.9	10.5	7.7	3.6	12.8	4.5	42.7	100.0
1998	2.1	3.5	10.3	9.1	11.1	4.2	13.2	4.2	42.4	100.0
Average	2.9	7.2	7.4	9.4	8.0	3.8	10.9	4.1	46.3	100.0

Source: Sriboonchitta et al., 2000.

According to Thu (2002), since 1999 Vietnam's seafood has been found in 64 countries in the world. However, nearly 80% of the export value was concentrated on four main markets: Japan, USA, EU, and China and Hong Kong with the market share as shown in the Table 2.12.

It can be seen from Table 2.12 that Vietnamese seafood export has decreased the dependence on the Japanese market and has increased exports to USA, China and Hong Kong markets.

Table 2.12 Export market share of Vietnam seafood (1998 – 2000)

Unit: %

Market	1998	1999	2000
Japan	43.90	40.90	33.00
USA	9.80	14.25	20.60
EU	11.40	9.60	6.15
China and Hong Kong	14.40	14.60	19.80
Other market	20.50	20.50	20.45
Total	100.00	100.00	100.00

Source: Fisheries Information Centre (Ficen)-Ministry of Fisheries, Vietnam (cited by Thu, 2002).

Table 2.13 Seafood export to the four main export markets of Vietnam

Market	2000		± % compared 1999
	USD Million	%	
Japan	467.265	32.7	22.5
USA	298.220	20.9	240.0
China + Hong Kong	291.729	20.4	230.0
EU	98.901	6.9	10.0
Other	271.303	19.1	23.2
Total	1,427.418	100.0	52.2

Source: Fishery Trade Magazine 1-2/2001 (cited by Thu, 2002).

Table 2.14 Exported seafood commodities of Vietnam in 2000

Commodities	USD million	%	± % Compared with 1999
Shrimp	662.494	46.4	37.3
Fish	242.590	17.0	72.9
Dry sea food commodities	185.155	13.0	240.0
Cuttle fish & octopus	108.631	7.6	- 100.0
Other commodities	228.548	16.0	52.2
Total	1,427.418	100.0	52.2

Source: Fishery Trade Magazine 12/2001 (cited by Thu, 2002).

In Vietnam, as shrimps are generally too expensive for local consumption as a result of the high price fetched on the global market, 90% are exported (Vietshrimp, 1996). In 2000, the value from exported shrimp accounted for 46.4% of the total export value of the fishery sector in Vietnam (Table 2.14).

Table 2.15 reflects that shrimp export to the markets in 2000 had an average increase of 37.3% as compared with 1999, of which the highest increase was in the USA market (2.3 times), followed by the Japanese market (22.8%).

Table 2.15 Shrimp exported to some main markets in 1999 & 2000

Markets	2000		± % Compared with 1999
	USD million	%	
Japan	292.705	44.2	22.8
USA	217.426	32.8	230.0
China + Hong Kong	61.079	9.2	4.5
EU	25.573	3.9	-15.6
Other countries	65.712	9.9	9.4
<b>Total</b>	<b>662.494</b>	<b>100,0</b>	<b>37.3</b>

Source: *Fishery Trade Magazine 1-2/2001 (cited by Thu, 2002).*

### 2.2.2 World shrimp import

World shrimp imports grew steadily from 1988 to 1994, but after this date, shrimp imports stabilized at 1.2 million metric tons. The Asian crisis combined with various supply problems were the main reasons behind the stabilization (Josupeit, 1999d).

Over 90% of all shrimp traded in the international market is consumed by a few importing countries i.e. Japan, the US and countries comprising the European Union (EU). Japan and the U.S are the major consumers of farmed tropical shrimp; while European consumers still prefer coldwater species harvested from the wild, they are

warming to tropical, farm reared shrimp varieties. While Japan is the largest warm water shrimp importer, the U.S. is the world's leading consumer of shrimp. The U.S consumes some 600,000 metric tons round weight, or 360,000 metric tons processed weight of shrimp each year. This compares to a Japanese consumption of about 318,000 metric tons (processed weight), while shrimp consumers in the EU buy close to 200,000 metric tons (processed weight) annually. Between one-half and two thirds of the shrimp consumed in the U.S. comes from shrimp farms located in Asia and Latin America. Wild caught shrimp makes up the rest, and most of this comes from the US domestic shrimp fishery in the southeastern U.S. and the Gulf of Mexico or from the neighboring Latin American or Caribbean countries (Hagler *et al.*, 1997).

Table 2.16 Import quantity of frozen shrimps of major importing countries

Unit: 1,000 metric ton

Year	Japan	USA	EU	Hong Kong	Australia	China	Singapore	Taiwan	Other	World
1984	169	137	106	23	3	-	17	-	30	485
1985	183	141	118	28	5	-	17	-	32	524
1986	214	161	146	41	4	-	20	0.1	31	617.1
1987	247	194	176	50	6	0.5	21	0.1	35	729.6
1988	259	207	206	68	5	0.0	22	0.2	49	816.2
1989	264	214	233	61	6	0.4	22	1	48	849.4
1990	284	211	258	55	6	0.2	34	1	57	906.2
1991	285	227	285	45	7	0.4	22	2	63	936.4
1992	273	253	282	38	7	3	22	7	64	949
1993	301	252	301	28	7	3	23	12	80	1007
1994	304	263	336	33	8	14	24	16	72	1070
1995	293	245	301	29	8	12	9	14	91	1002
1996	289	230	322	30	8	15	8	14	118	1034
1997	268	260	305	23	14	14	7	19	107	1017
1998	239	272	360	22	15	15	6	15	129	1073
Average*	2.8	5.3	9.5	1.8	13.8	126.6	-3.1	78.1	12.1	6.0

Source: FAO Fisheries Department, 2000. \* (Sriboonchitta *et al.*, 2000).

The main shrimp importing countries have always been Japan and the USA, with the US taking over in recent years. In 1984, Japan was the largest importer of

frozen shrimps while the US and Europe were the second and the third largest importers, respectively. However, in 1998 Europe became the largest, Japan was the third while the US was still the second. The market shares of frozen shrimp import for Europe, the US and Japan were 33.5%, 25.3% and 22.3% in 1998, respectively (Tables 2.16 and Table).

Table 2.17 Shares of frozen shrimp import of major importing countries

Unit: %

Year	Japan	USA	EU	Hong Kong	Australia	China	Singapore	Taiwan	Other	World
1984	34.9	28.2	21.8	4.8	0.7	-	3.6	-	6.1	100.0
1985	35.0	26.8	22.5	5.4	0.9	-	3.2	-	6.2	100.0
1986	34.7	26.0	23.6	6.6	0.7	-	3.2	0.0	5.1	100.0
1987	33.8	26.5	24.2	6.8	0.9	0.1	2.8	0.0	4.8	100.0
1988	31.7	25.3	25.2	8.3	0.6	0.0	2.8	0.0	6.1	100.0
1989	31.0	25.2	27.4	7.2	0.7	0.0	2.6	0.2	5.7	100.0
1990	31.3	23.3	28.5	6.0	0.6	0.0	3.8	0.1	6.3	100.0
1991	30.4	24.2	30.5	4.8	0.7	0.0	2.3	0.2	6.7	100.0
1992	28.8	26.7	29.7	4.0	0.7	0.3	2.3	0.7	6.8	100.0
1993	29.9	25.0	29.9	2.8	0.7	0.3	2.3	1.2	7.9	100.0
1994	28.4	24.6	31.4	3.1	0.8	1.3	2.2	1.5	6.7	100.0
1995	29.2	24.4	30.0	2.9	0.8	1.2	0.9	1.4	9.1	100.0
1996	27.9	22.3	31.1	2.9	0.8	1.4	0.8	1.4	11.4	100.0
1997	26.4	25.6	30.0	2.3	1.3	1.4	0.7	1.8	10.5	100.0
1998	22.3	25.3	33.5	2.1	1.4	1.4	0.6	1.4	12.0	100.0
Average	30.4	25.3	28.0	4.7	0.8	0.6	2.3	0.8	7.4	100.0

Source: Sriboonchitta et al., 2000.

#### 2.2.2.1 Vietnamese shrimp in Japan

Japan is the largest import market in the world, and it is also the country that has the highest average consumption per head reaching 72 kg/head/year. Japan has been the leading import market for Vietnamese shrimp for 15 years (Thu, 2002).



Table 2.18 Shrimp imported of Japan

Unit: 1,000 metric ton

Countries	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Indonesia	53.8	54.1	60.0	63.7	64.3	64.1	57.3	53.7	50.6	49.8
Thailand	47.2	46.8	51.5	49.3	48.5	33.4	24.1	17.8	19.3	18.6
India	35.8	32.8	36.8	44.1	45.6	55.5	59.1	50.4	52.8	50.0
Vietnam	18.6	23.1	28.8	33.0	28.5	28.2	31.1	26.7	30.3	33.0
China	35.4	34.7	30.2	20.4	15.7	16.3	15.1	12.1	13.5	16.5
Philippine	22.4	18.4	17.5	16.9	12.4	8.8	6.9	7.3	7.9	8.3
Greenland	13.9	13.8	17.2	16.2	13.4	13.9	9.5	10.0	10.4	9.8
Taiwan	8.5	5.6	4.2	2.6	2.2	1.9	1.1	0.5	0.4	0.2
Others	48.8	43.4	54.3	56.8	62.3	66.7	63.0	60.4	62.1	60.5
Total	284.4	272.7	300.5	303.0	292.9	288.8	267.2	238.9	247.3	246.6

Source: *Fishery Trade Magazine 3/2001 (cited by Thu, 2002).*

#### 2.2.2.2 Vietnamese shrimp in USA

The USA is the second leading seafood import market in the world and has also been the second largest export market for Vietnam since 2001. This market has great potential for Vietnam in the next ten years (Thu, 2002).

The USA export market has the highest export growth rate for Vietnam. Vietnam has exported to the USA market for 7 years, with a yearly average growth rate of 105.4% (Table 2.19).

In 1999 Vietnam exported 8,170 metric tons of shrimp to the USA market, valued at USD 95 million. Therefore, it ranked ninth among ten countries that were leading shrimp exporters to America. In 2000, Vietnam exported to America 14,831 metric tons, valued at USD 217.4 million, and ranked sixth after Thailand, Mexico, Indian, Ecuador, and China (Thu, 2002).

Table 2.19 Vietnam export to USA market 1994–2000

Year	USD million	Growth rate (%)	In which shrimp is	
			USD million	%
1994	5.802	-	5.121	88.26
1995	19.583	237.5	16.615	84.84
1996	33.988	73.56	28.174	82.89
1997	46.376	36.45	35.313	76.14
1998	79.526	71.48	62.096	78.08
1999	108.1	35.93	83.300	77.06
2000	298.22	175.87	217.426	72.91

Source: American Custom Department (cited by Thu, 2002).

## 2.2 Summary

1. World shrimp production consists of aquaculture and capture, of which about 30% is from aquaculture and the remaining is from capture. The top five world leading shrimp producing countries, in order, are China, Indonesia, India, Thailand and Vietnam; the leading shrimp aquaculture countries are Thailand, Indonesia, Ecuador, China and Vietnam; however, Vietnam ranks fourth in terms of Black Tiger shrimp aquaculture after Thailand, India and Indonesia.
2. Black Tiger shrimp (*Penaeus monodon*) is the most widely distributed, aquacultured and marketed shrimp species in the world.
3. The main shrimp exporting countries in the world are developing countries: Thailand, Indonesia, Ecuador, India and Vietnam while the main shrimp importing countries are developed countries such as the USA, Japan, and countries of the EU.
4. Among shrimp export commodities, frozen shrimp is highly traded in the world.