

**Table 1.5.1 Target Production in Aquaculture Sector**

	Unit: ton					
	2000	2001	2002	2003	2004	2005
<b>Mariculture</b>						
Seaweeds	115,365	140,745	173,117	214,665	259,744	314,291
Fin-fishes	32,815	38,553	43,834	47,845	57,893	70,050
Sub-total	148,180	179,298	216,951	262,510	317,637	384,341
<b>Brackishwater culture</b>						
Extensive	322,838	371,909	433,894	505,796	571,252	664,080
Semi intensive	64,568	82,646	105,374	133,887	178,516	224,930
Intensive	43,045	56,819	80,580	104,134	142,813	182,087
Sub-total	430,451	511,374	619,848	743,817	892,581	1,071,097
<b>Freshwater culture</b>	347,574	419,928	494,963	590,708	705,010	841,477
<b>Total</b>	<b>926,205</b>	<b>1,110,600</b>	<b>1,331,762</b>	<b>1,597,035</b>	<b>1,915,228</b>	<b>2,296,915</b>

Source: Directorate General of Aquaculture

**Table 1.5.2 Target Development Area in Aquaculture Sector**

	Unit: ha					
	2000	2001	2002	2003	2004	2005
<b>Mariculture</b>						
Seaweeds	1,923	2,346	2,885	3,578	4,329	5,238
Fin-fishes	820	964	1,096	1,196	1,447	1,751
Sub-total	2,743	3,310	3,981	4,774	5,776	6,989
<b>Brackishwater culture</b>						
Extensive	284,031	301,315	309,924	318,779	327,280	334,718
Semi intensive	56,806	75,329	95,361	119,542	148,764	184,095
Intensive	37,871	53,806	71,521	92,977	119,011	150,623
Sub-total	378,708	430,450	476,806	531,298	595,055	669,436
<b>Freshwater culture</b>	297,048	352,433	418,183	496,244	588,864	698,815
<b>Total</b>	<b>678,499</b>	<b>786,193</b>	<b>898,970</b>	<b>1,032,316</b>	<b>1,189,695</b>	<b>1,375,240</b>

Source: Directorate General of Aquaculture

**Table 1.5.3 Target Export Volume by Species**

	Unit: ton					
	2000	2001	2002	2003	2004	2005
<b>Shrimp</b>	81,331	101,145	144,974	191,723	235,735	264,661
<b>Fin-fish</b>						
Giant sea perch	4,064	4,871	5,855	7,037	8,458	10,167
Groupers	817	988	1,190	1,432	1,724	1,987
Tilapia	15,152	17,981	21,313	25,268	29,961	35,530
Soft-shelled turtle	849	1,011	1,204	1,434	1,707	2,034
Sub-total	20,882	24,851	29,562	35,171	41,850	49,718
<b>Crabs</b>	1,238	1,350	1,483	1,631	1,793	1,972
<b>Frog</b>	415	450	493	540	592	649
<b>Seaweeds</b>	23,073	26,334	31,428	37,514	44,787	53,479
<b>Ornamental fish</b>	1,897	2,275	2,770	3,373	4,107	5,001
<b>Shellfish</b>	291	326	356	390	426	466
<b>Pearls</b>	9	12	14	18	22	28
<b>Others</b>	14,608	16,390	18,406	20,688	23,274	26,183
<b>Total</b>	<b>143,744</b>	<b>173,133</b>	<b>229,486</b>	<b>291,048</b>	<b>352,586</b>	<b>402,157</b>

Source: Directorate General of Aquaculture

**Table 1.5.4 Planned Number of Employee in Aquaculture Sector**

	Unit: person					
	2000	2001	2002	2003	2004	2005
<b>Mariculture</b>						
Seaweed	19,228	23,458	28,853	35,777	43,291	52,382
Fin-fishes	16,408	19,276	21,917	23,923	28,946	35,025
Sub-total	35,636	42,734	50,770	59,700	72,237	87,407
<b>Brackishwater culture</b>						
Extensive	568,061	602,630	619,848	637,558	654,559	669,436
Semi intensive	227,225	301,315	381,445	478,168	595,054	736,379
Intensive	227,225	322,838	429,126	557,863	714,065	903,738
Sub-total	1,022,511	1,226,783	1,430,419	1,673,589	1,963,678	2,309,553
Freshwater culture	841,122	1,000,892	1,191,089	1,417,526	1,687,120	2,008,123
<b>Total</b>	<b>1,899,269</b>	<b>2,270,409</b>	<b>2,672,278</b>	<b>3,150,815</b>	<b>3,723,035</b>	<b>4,405,083</b>

Source: Directorate General of Aquaculture

**Table 1.5.5 Potential Area for Aquaculture in NTB and NTT**

	Unit: ha	
	NTB	NTT
<b>Brackishwater culture</b>		
Shrimp	1,000	800
Shrimp & Milk fish	13,000	1,000
Shrimp & Sea cucumber	24,400	3,200
<b>Total</b>	<b>38,400</b>	<b>5,000</b>
<b>Mariculture</b>		
Giant sea perch		12,500
Groupers	112,500	80,000
Shellfish	-	10,000
Sea cucumber	1,000	-
Pearl oyster/Abalone	27,300	27,500
Seaweed	12,000	1,000
<b>Total</b>	<b>152,800</b>	<b>131,000</b>

Source: Directorate General of Aquaculture

**Table 2.1.1 Average Number of Rainy Days in a Month by Districts in NTB (1999)**

District	Unit: Days											
	JAN.	FEB.	MAR.	APR.	MAY.	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
Lombok Barat	18	19	15	13	3	2	1	2	3	13	17	12
Lombok Tengah	24	18	23	16	3	1	2	1	2	10	16	15
Lombok Timur	22	18	19	13	1	1	1	2	1	6	12	18
Sumbawa	22	21	17	15	2	2	2	2	1	9	12	16
Dompu	15	19	15	15	3	3	1	0	1	8	9	17
Bima	16	19	17	18	3	3	1	1	0	5	10	19
Kota Mataram	17	16	15	10	3	2	4	3	5	12	16	19

Source: Nusa Tenggara Barat Dalam Angka, 1999

**Table 2.1.2 Monthly Average Rainfall by Districts in NTB (1999)**

District	Unit: mm												Total
	JAN.	FEB.	MAR.	APR.	MAY.	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
Lombok Barat	341	328	227	156	21	23	7	12	42	163	285	162	1,767
Lombok Tengah	398	264	359	198	26	11	8	31	9	155	261	191	1,911
Lombok Timur	477	271	250	184	4	4	4	41	7	71	171	293	1,777
Sumbawa	368	334	216	176	28	17	18	21	4	86	120	207	1,595
Dompu	154	575	421	132	20	36	4	1	17	126	130	226	1,842
Bima	228	261	201	341	20	21	7	3	1	33	117	265	1,498
Kota Mataram	495	270	244	129	11	85	38	42	53	213	450	103	2,133

Source: Nusa Tenggara Barat Dalam Angka, 1999

**Table 2.1.3 Average Number of Rainfall for Five Years by Districts in NTB (1995-1999)**

District	Unit: mm					Average
	1995	1996	1997	1998	1999	
Lombok Barat	133	263	92	140	147	155
Lombok Tengah	154	113	112	172	159	-
Lombok Timur	108	88	62	134	148	108
Sumbawa	118	88	66	123	133	106
Dompu	63	79	54	111	153	92
Bima	112	204	66	116	125	125
Kodya mataram	-	-	-	68	177	123

Source: Nusa Tenggara Barat Dalam Angka, 1999

**Table 2.1.4 Monthly Climatic Condition of Sumbawa Besar in NTB (1999)**

Year		JAN.	FEB.	MAR.	APR.	MAY.	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
2000	Rainfall (mm)	362	240	129	171	79	0	0	11	0	149	72	108
	Rain Days	13	21	16	18	8	0	0	1	0	5	9	6
	Max. Rainfall a Day (mm)	89	57	34	37	28	0	0	11	0	82	26	37
1998	Ave. (°C)	26.9	26.9	27.2	27.6	26.3	26.1	26.6	26.9	27.2	27.5	27.1	27.0
	Temp Max. (°C)	31.3	31.4	31.8	32.5	32.4	32.5	32.2	33.4	34.0	34.5	32.0	31.8
	Min. (°C)	23.9	24.1	24.2	24.4	23.1	21.5	22.6	21.7	22.6	22.0	23.6	23.8
	Ave. (m/sec)	2.5	2.5	2.5	2.5	2.5	3.0	2.5	3.5	3.0	3.5	3.0	3.0
	Wind Max. (m/sec)	7.5	7.5	5.5	7.0	6.0	7.5	6.0	13.0	7.5	7.5	7.5	6.0
	Direction	W	W	W	W	SE	SE	SE	SE	SE	SE	W	W

Source: Badan Meteorologi dan Geofisika, Departemen Perhubungan.

**Table 2.1.5 Monthly Average Rainfall by Districts in NTT (1999)**

District	Unit: mm												Total
	JAN.	FEB.	MAR.	APR.	MAY.	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
Sumba Barat	-	-	-	-	-	-	-	-	-	-	-	-	-
Sumba Timur	247	218	287	135	0	1	3	-	-	18	172	322	1403
Manggarai	416	415	410	472	16	96	30	76	137	309	458	373	3208
Ngada	308	277	311	246	1	30	2	-	-	56	387	212	1830
Ende	222	164	216	98	-	8	-	4	-	27	99	534	1372
Sikka	323	363	200	55	-	7	-	10	-	16	43	195	1212
Flores Timur	247	436	94	57	11	65	2	-	-	19	16	241	1188
Lembata	-	-	-	-	-	-	-	-	-	-	-	-	-
Alor	149	283	170	176	25	85	2	5	-	17	-	-	912
Kupang	752	802	501	142	19	-	48	-	-	60	363	209	2896
Timor Tengah Selatan	596	226	590	298	155	246	53	23	-	123	260	355	2925
Timor Tengah Utara	-	-	-	-	-	-	-	-	-	-	-	-	-
Belu	629	908	354	351	-	42	-	-	-	93	-	-	-

Source: Nusa Tenggara Timur Dalam Angka, 1999

**Table 2.1.6 Percentage of Sunshine in Kupang by Months (1996-1999)**

Year	Unit: %											
	JAN.	FEB.	MAR.	APR.	MAY.	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
1996	52	52	76	79	87	95	97	88	97	93	79	37
1997	58	37	83	96	96	86	92	99	99	100	89	60
1998	58	74	80	81	88	83	87	98	93	89	61	54
1999	47	38	54	73	95	90	95	93	100	93	77	46
Average												

Source: Nusa Tenggara Timur Dalam Angka, 1999

**Table 2.1.7 Monthly Climatic Condition of Maumere in NTB (1999, 2000)**

Year		JAN.	FEB.	MAR.	APR.	MAY.	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	
2000	Rain Fall (mm)	316	120	92	145	22	1	0	0	0	52	73	103	
	Rain Days		20	18	9	11	6	1	0	0	0	3	8	10
	Max. Rain Fall a Day (mm)		88	20	59	81	15	1	0	0	0	42	27	30
1998	Ave. (°C)	26.8	26.7	27.0	27.1	27.6	27.5	26.4	26.2	27.6	28.8	28.7	26.8	
	Temp Max. (°C)	31.1	30.3	30.9	31.4	32.4	32.0	31.5	31.8	33.1	34.0	33.5	30.2	
	Min. (°C)	23.0	24.3	23.7	23.0	23.9	23.7	22.4	22.8	22.6	25.0	24.8	24.0	
	Ave. (m/sec)	2.5	2.5	3.0	3.5	4.5	4.5	5.0	4.5	4.0	3.0	3.0	2.5	
	Wind Max. (m/sec)	9.0	8.0	9.0	7.5	9.0	9.0	12.5	9.0	11.0	9.0	8.5	9.5	
	Direction	W	W	W	SW	SE	SE	SE	SE	SE	SW	W	W	

Source: Badan Meteorologi dan Geofisika, Departemen Perhubungan

**Table 2.1.8 Damages in Sikka by Earthquake and Tsunami in December 1992**

Kecamatan/ Perw.	Deaths and Injuries (Persons)				Damaged Facilities (Numbers)												
	Dead	Heavy Injured	Slight Injured	Total	Government Buildings			Private Buildings			Churches/Mosques			Community Houses			
					Total	Heavy damaged	Slight damaged	Total	Heavy damaged	Slight damaged	Total	Heavy damaged	Slight damaged	Total	Heavy damaged	Slight damaged	
Paga	14	7	14	35	-	71	14	67	45	38	-	3	2	221	38	132	
Perw. Kec. Paga	7	9	27	43	57	4	2	1	2	-	8	2	1	303	231	42	
Lela	13	16	64	93	12	13	9	4	7	12	4	2	1	232	225	336	
Nita	16	42	116	174	15	22	5	36	5	8	3	8	1	2,042	670	140	
Alok	144	204	1,115	1,503	10	41	10	67	45	38	3	8	5	443	1,035	1,478	
Maumere	791	54	73	918	38	4	4	35	6	3	12	3	4	3,413	325	174	
Perw. Kec. Maumere	8	5	5	18	-	21	35	-	1	-	-	-	1	48	105	89	
Kewapante	9	13	87	109	11	36	5	5	13	18	-	6	1	228	279	255	
Bola	28	12	21	51	10	31	11	9	17	28	-	3	-	117	104	70	
Talibura	82	27	30	139	25	39	10	-	-	-	14	8	4	541	102	109	
Perw. Kec. Talibura	1	3	4	8	-	36	21	2	8	10	-	-	2	31	401	119	
<b>Total</b>	<b>1,103</b>	<b>392</b>	<b>1,597</b>	<b>3,092</b>	<b>168</b>	<b>318</b>	<b>126</b>	<b>226</b>	<b>149</b>	<b>155</b>	<b>44</b>	<b>43</b>	<b>23</b>	<b>7,619</b>	<b>3,515</b>	<b>2,953</b>	

Source: Laporan Kejadian Bencana Gempa Bumi dan Gelombang Pasang (Tsunami) Tanggal 12 Des. 1992 di Kab. Sikka, Kedaan Sampai Dengan 31 Des.1992, Pemerintah Kab.Sikka Maumere, 1992

**Table 2.1.9 Data on Victims Who Lost Properties in Earthquake in December 1992 (Sikka)**

Sub District	Village	North/ South Coast	Location	Number of households	Number of people	Origin where come from
Alok	1. Wuring	N.C.	a. Woromarang	620	2,958	Wuring
	2. Wolomarang	N.C.	a. Woromarang	72	338	Bebeng
	3. Kota Uneng	N.C.	a. Lapangan St. Yoseph	151	648	Sinde Kabor
	4. Beru	N.C.	a. Lapangan Kota Baru Pasar Waioti	508	1,802	Pantai beru s/d Lolaria
<b>Sub Total</b>				<b>1,351</b>	<b>5,744</b>	-
Maumere	1. Koja Doi	N.C.	a. Kaja Doi	97	160	Koja Doi
	2. Permaan	N.C.	a. Permaan	320	1,555	Permaan
			b. P. Damhila	90	481	Pangabatang
	3. Pemana	N.C.	a. Pemana	681	4,468	Pemana
			b. Sukun	137	768	Sukun
<b>Sub Total</b>				<b>1,325</b>	<b>7,432</b>	-
Talibura	1. Talibura	N.C.	Nangahale	222	830	Pulau Babi
	2. Nebe)	N.C.	Nebe	76	389	Iang Loeng/Nebe
	3. Wailamung	N.C.	Wailamung	23	115	Wailamung
<b>Sub Total</b>				<b>321</b>	<b>1,334</b>	-
Lela	1. Sikka	S.C.	a. Sikka	52	303	Wukur
			-sda-	66	380	Bidara
			b. Du	37	218	Tanaling
	2. Iigai)	S.C.	a. SDK. Puho	18	89	Iigai
			b. Baoletet	20	119	Kojapadu
<b>Sub Total</b>				<b>193</b>	<b>1,109</b>	-
Nita	1. Nirangkliung	M.	a. Oringkoting	90	450	Detunglikong
			b. Rano	34	170	-sda-
			c. Dong Pitu	28	140	-sda-
			d. Wolongpetung	16	80	-sda-
	2. Riit	M.	a. Wolongbago	1,321	132	Belat
			b. kelong	13	70	Pauwaun
	3. Magepanda	S.C.	a. Ijuware	75	296	Koisia
			b. Pakape	39	162	-sda-
			c. Baelokamen	13	65	-sda-
			d. wo;oboa	55	248	Duli
			e. Ilimodo	34	145	-sda-
			f. Tanahmerah	51	258	-sda-
			g. Magegano	7	24	Mageloo
h. Ledandoi	83	265	Magerongka			
			i. Waturia	16	78	Kelurahan Wuring
<b>Sub Total</b>				<b>575</b>	<b>2,583</b>	<b>-sda-</b>
Bola	1. Hokor	S.C.	a. Kompleks Pastoran Hokor	6	19	Hoko
			b. Todang	10	29	-sda-
<b>Sub Total</b>				<b>16</b>	<b>48</b>	<b>-sda-</b>
<b>Total</b>				<b>3,781</b>	<b>18,250</b>	<b>-sda-</b>

Remarks: N.C.: North Coast, S.C.: South Coast, M.: Mountain

Source: Laporan Kejadian Bencana Gempa Bumi dan Gelombang Pasang (Tsunami) Tanggal 12 Des. 1992 di Kab. Sikka, Kedaan Sampai Dengan 31 Des. 1992, Pemerintah Kab. Sikka Maumere, 1992

**Table 2.1.10 Households with Drinking Water by Provinces and Facility (2000)**

Province	Unit: %				
	Private	Shared	Public	Others	Total
Sumatra Utara	62.15	15.34	15.93	6.59	100
Sumatra Barat	55.39	26.72	12.43	5.46	100
Riau	55.76	15.11	8.54	20.59	100
Jambi	58.96	24.96	7.58	8.51	100
Sumatra Selatan	55.90	22.12	8.66	13.32	100
Bengkulu	65.51	21.65	9.15	3.69	100
Lampung	71.50	18.06	7.14	3.30	100
D.K.I. Jakarta	66.75	15.70	4.49	13.07	100
Jawa Barat	59.19	22.78	14.43	3.59	100
Jawa Tengah	52.57	27.84	13.42	6.17	100
D.I.Yogyakarta	65.43	30.51	3.36	0.69	100
Jawa Timur	50.99	28.73	14.82	5.46	100
Bali	56.19	28.26	10.20	5.35	100
Nusa Tenggara Barat	26.84	45.16	23.03	4.97	100
Nusa Tenggara Timur	18.36	27.78	45.50	8.35	100
Kalimantan Barat	36.38	6.48	10.85	46.29	100
Kalimantan Tengah	39.37	14.78	11.18	34.68	100
Kalimantan Selatan	35.30	18.45	18.21	28.05	100
Kalimantan Timur	48.01	11.40	13.43	27.16	100
Sulawesi Utara	46.12	33.84	17.10	2.93	100
Sulawesi Tengah	45.93	19.12	20.29	14.66	100
Sulawesi Selatan	44.00	30.09	18.19	7.72	100
Sulawesi Tenggara	44.60	29.71	21.59	4.10	100
Irian Jaya	32.92	16.34	20.54	30.20	100
National Average	53.71	24.33	13.97	7.99	100

Source: Welfare Statistics 2000, National Socio-Economic Survey, BPS

**Table 2.1.11 Households with Drinking Water by Provinces and Source (2000)**

Province	Unit: %									
	Pipe	Pump	Protected well	Unprotected well	Protected spring	Unprotected spring	Rivers	Rain water	Package	Others
Acch	9.73	2.79	47.02	27.58	3.03	3.19	4.34	0.82	0.28	1.20
Sumatra Utara	23.53	7.21	30.09	17.35	8.51	5.63	4.02	1.41	1.24	1.01
Sumatra Barat	21.52	4.53	28.13	18.42	9.12	10.76	3.72	3.20	0.50	0.10
Riau	7.30	1.42	29.15	24.34	2.26	2.15	4.92	27.73	0.34	0.39
Jambi	22.24	0.82	22.11	24.31	1.14	1.14	13.44	14.16	0.59	0.05
Sumatra Selatan	17.64	1.39	37.93	22.17	0.84	0.37	12.49	6.54	0.53	0.10
Bengkulu	14.65	3.02	32.53	41.86	2.50	3.76	1.50	-	0.08	0.10
Lampung	5.60	2.09	44.81	37.17	5.26	2.88	1.41	0.51	0.17	0.10
D.K.I. Jakarta	47.60	43.47	4.03	0.41	0.13	0.08	0.01	-	3.46	0.81
Jawa Barat	13.38	25.56	31.67	12.04	8.32	6.23	0.82	0.65	0.83	0.52
Jawa Tengah	15.10	8.84	46.67	12.76	9.39	7.49	0.90	0.86	0.47	0.22
D.I.Yogyakarta	9.15	11.00	55.20	15.44	1.90	1.68	-	5.55	0.05	0.02
Jawa Timur	18.84	14.21	41.90	9.51	8.16	4.82	0.40	0.33	1.11	0.72
Bali	46.16	5.80	26.94	2.69	7.66	3.45	1.33	3.38	2.44	0.14
Nusa Tenggara Barat	13.76	7.76	48.41	15.47	9.43	3.74	1.08	-	0.35	0.02
Nusa Tenggara Timur	19.13	0.72	14.71	10.81	27.27	18.83	5.99	1.68	0.40	0.46
Kalimantan Barat	11.48	0.16	3.52	11.25	2.31	0.98	31.87	38.11	0.30	0.02
Kalimantan Tengah	15.75	11.19	8.25	13.35	0.56	0.31	36.17	13.94	0.38	0.10
Kalimantan Selatan	34.34	11.09	10.11	19.46	0.74	0.27	19.38	3.52	1.00	0.09
Kalimantan Timur	46.55	3.15	9.53	13.51	1.49	0.85	14.18	8.81	1.49	0.45
Sulawesi Utara	23.07	1.71	38.48	18.85	11.34	3.53	0.23	1.14	1.08	0.56
Sulawesi Tengah	19.93	18.77	18.39	17.58	11.48	4.78	7.19	0.69	0.90	0.30
Sulawesi Selatan	21.68	8.10	30.79	19.25	9.56	4.61	4.05	1.22	0.64	0.11
Sulawesi Tenggara	21.73	2.85	31.37	19.07	10.59	5.99	3.56	3.81	0.94	0.08
Maluku	20.69	3.45	41.70	17.47	9.32	1.20	4.74	0.49	0.49	-
Irian Jaya	14.95	1.41	6.94	15.73	13.82	17.31	17.81	11.06	0.42	0.55
National Average	18.59	13.36	34.04	14.29	7.43	4.70	3.47	2.78	0.88	0.45

Source: Statistics Indonesia, Statistical Year Book of Indonesia, 1999

**Table 2.1.12 Households with Distance Between Pump/Well/Spring, and Cesspool or Toilet (2000)**

Province	Unit: %					Total
	<6m	6-10m	11-15m	≥16m	Not Stated	
Sumatra Utara	13.36	24.99	15.90	22.15	23.60	100
Sumatra Barat	13.08	19.48	10.11	29.36	27.98	100
Riau	17.56	34.54	16.15	20.79	10.96	100
Jambi	11.08	29.59	15.25	21.03	23.05	100
Sumatra Selatan	9.85	32.28	21.36	13.57	22.93	100
Bengkulu	17.58	40.95	11.25	13.78	16.44	100
Lampung	13.02	39.33	19.11	16.50	12.05	100
D.K.I. Jakarta	36.58	42.12	9.33	4.39	7.57	100
Jawa Barat	18.36	32.68	10.69	16.40	21.84	100
Jawa Tengah	9.52	26.16	14.36	26.60	23.35	100
D.I. Yogyakarta	12.67	41.24	23.56	17.20	5.32	100
Jawa Timur	9.70	24.52	13.46	31.04	21.28	100
Bali	11.21	32.09	10.27	31.51	14.92	100
Nusa Tenggara Barat	11.01	26.77	9.37	21.09	31.76	100
Nusa Tenggara Timur	4.31	9.91	8.14	50.01	27.63	100
Kalimantan Barat	5.26	25.91	16.85	41.96	10.02	100
Kalimantan Tengah	3.55	43.24	18.28	25.10	9.83	100
Kalimantan Selatan	10.78	26.63	15.04	28.71	18.84	100
Kalimantan Timur	5.15	14.12	16.69	46.43	17.62	100
Sulawesi Utara	13.48	32.59	11.15	24.93	17.85	100
Sulawesi Tengah	16.18	16.81	11.39	27.43	28.19	100
Sulawesi Selatan	8.49	18.71	11.52	31.19	30.09	100
Sulawesi Tenggara	14.20	16.83	8.84	41.16	18.96	100
Irian Jaya	7.68	15.63	8.09	40.37	28.24	100
National Average	13.44	28.57	13.16	23.55	21.28	100

Source: Welfare Statistics 2000, National Socio-Economic Survey, BPS

**Table 2.1.13 Households with Toilet Facilities by Province (1999)**

Province	Unit: %					Total
	Private	Shared	Public	Others		
Aceh	50.98	6.60	12.04	30.37	100	
Sumatra Utara	71.22	5.37	6.58	16.83	100	
Sumatra Barat	38.38	17.35	11.61	32.66	100	
Riau	77.90	8.25	2.49	11.36	100	
Jambi	56.54	11.44	11.72	20.30	100	
Sumatra Selatan	57.92	9.83	9.99	22.25	100	
Bengkulu	56.52	9.67	2.73	31.09	100	
Lampung	74.76	10.05	3.16	12.03	100	
D.K.I. Jakarta	78.06	15.02	6.12	0.80	100	
Jawa Barat	50.95	14.37	13.89	20.80	100	
Jawa Tengah	50.40	11.47	7.24	30.88	100	
D.I. Yogyakarta	60.56	21.82	1.56	16.07	100	
Jawa Timur	48.21	16.20	3.67	31.92	100	
Bali	55.22	19.11	0.81	24.87	100	
Nusa Tenggara Barat	32.09	8.76	2.24	56.91	100	
Nusa Tenggara Timur	62.53	7.72	1.53	28.22	100	
Kalimantan Barat	53.00	6.49	3.59	36.92	100	
Kalimantan Tengah	48.68	16.79	15.50	19.04	100	
Kalimantan Selatan	53.44	15.65	12.86	18.05	100	
Kalimantan Timur	71.31	10.00	7.31	11.38	100	
Sulawesi Utara	50.41	21.45	3.19	24.95	100	
Sulawesi Tengah	41.09	7.69	3.82	47.40	100	
Sulawesi Selatan	51.96	9.77	1.87	36.41	100	
Sulawesi Tenggara	56.24	6.76	1.96	35.04	100	
Maluku	36.78	6.20	13.33	43.69	100	
Irian Jaya	44.44	12.42	4.26	38.88	100	
National Average	54.11	12.82	7.42	25.65	100	

Source: Statistics Indonesia, Statistical Year Book of Indonesia, 1999



Table 2.1.14 Household with Lighting by Province and Source (1999)

Province	PLN	Non-PLN	Pressure Lamp	Oil Lamp	Others	Total	Unit: %
Aceh	70.03	0.16	9.76	18.88	1.18	100	
Sumatra Utara	83.51	2.07	3.36	10.72	0.35	100	
Sumatra Barat	71.52	1.20	8.56	18.57	0.15	100	
Riau	49.51	15.02	9.36	25.77	0.33	100	
Jambi	54.76	4.39	12.49	27.68	0.68	100	
Sumatra Selatan	59.96	7.69	7.16	23.98	1.21	100	
Bengkulu	68.07	1.60	2.84	27.41	0.08	100	
Lampung	36.49	6.57	10.14	45.37	1.43	100	
D.K.I. Jakarta	99.50	0.36	0.02	0.12	-	100	
Jawa Barat	391.57	1.07	0.79	6.33	0.25	100	
Jawa Tengah	92.02	0.57	1.29	6.00	0.13	100	
D.I.Yogyakarta	95.19	0.05	0.23	4.46	0.06	100	
Jawa Timur	91.32	1.03	1.34	6.25	0.07	100	
Bali	94.71	0.17	0.38	4.43	0.31	100	
Nusa Tenggara Barat	76.33	5.32	1.18	17.06	0.10	100	
Nusa Tenggara Timur	32.23	1.93	2.39	63.09	0.36	100	
Kalimantan Barat	59.78	2.77	2.94	34.33	0.19	100	
Kalimantan Tengah	56.86	5.87	4.52	29.24	3.51	100	
Kalimantan Selatan	75.10	1.46	2.03	20.96	0.45	100	
Kalimantan Timur	82.74	4.27	2.92	9.86	0.21	100	
Sulawesi Utara	81.55	0.58	8.04	9.35	0.48	100	
Sulawesi Tengah	58.58	4.19	14.13	22.42	0.68	100	
Sulawesi Selatan	71.16	2.42	3.48	22.42	0.53	100	
Sulawesi Tenggara	51.46	6.62	4.52	37.05	0.37	100	
Maluku	66.11	1.48	8.18	23.25	0.98	100	
Irian Jaya	34.25	1.51	6.18	26.48	31.58	100	
National Average	81.70	2.03	2.87	12.75	0.66	100	

Remarks: PLN; State Electricity, Non-PLN: Privately Generated Electricity

Source: Statistics Indonesia, Statistical Year Book of Indonesia, 1999

Table 2.1.15 Households with Cooking Fuel by Province and Source (1999)

Province	Electricity	Gas/LPG	Kerosene	Firewood	Charcoal / Coal	Others	Total	Unit: %
Aceh	0.92	5.65	27.38	65.47	0.04	0.54	100	
Sumatra Utara	2.17	5.12	44.99	47.55	0.07	0.11	100	
Sumatra Barat	1.52	2.72	35.18	60.42	-	0.17	100	
Riau	2.12	3.14	45.52	45.29	3.86	0.07	100	
Jambi	1.50	6.86	28.38	60.98	2.28	-	100	
Sumatra Selatan	0.92	7.09	32.66	59.20	0.09	0.04	100	
Bengkulu	1.03	4.94	28.94	64.20	0.41	0.48	100	
Lampung	0.56	3.38	19.69	76.27	0.10	-	100	
D.K.I. Jakarta	1.79	27.99	69.60	0.07	0.52	0.03	100	
Jawa Barat	1.53	9.29	56.41	32.55	0.09	0.12	100	
Jawa Tengah	1.31	4.81	29.73	63.65	0.29	0.20	100	
D.I.Yogyakarta	0.81	8.42	29.46	61.08	0.23	-	100	
Jawa Timur	1.46	4.90	34.85	58.40	0.15	0.25	100	
Bali	1.36	19.57	24.38	54.58	-	0.10	100	
Nusa Tenggara Barat	1.27	1.56	24.36	72.78	-	0.03	100	
Nusa Tenggara Timur	0.63	0.28	8.53	90.47	-	0.10	100	
Kalimantan Barat	1.44	3.54	33.93	60.75	0.08	0.26	100	
Kalimantan Tengah	1.32	2.14	32.64	63.60	0.12	0.17	100	
Kalimantan Selatan	1.01	4.04	33.94	60.70	0.24	0.07	100	
Kalimantan Timur	2.91	9.99	53.19	32.52	1.13	0.25	100	
Sulawesi Utara	1.33	0.50	29.40	68.34	0.25	0.17	100	
Sulawesi Tengah	0.42	2.83	16.21	74.43	5.99	0.12	100	
Sulawesi Selatan	0.55	20.65	20.65	57.78	0.29	0.09	100	
Sulawesi Tenggara	1.91	5.52	17.61	73.11	1.73	0.12	100	
Maluku	0.68	0.27	27.66	71.10	0.12	0.17	100	
Irian Jaya	0.41	1.70	26.71	71.12	-	0.07	100	
National Average	1.38	7.35	38.23	52.54	0.34	0.15	100	

Source: Statistics Indonesia, Statistical Year Book of Indonesia, 1999

Table 2.4.1 Marine Fish Production by Districts (1990-1999)

District	Marine Fishery Production (Tons)										Rate of Increase (%)							
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	1990/95	1995/99	1990/99	1990/93	1993/96	1996/99	1993/99	1997/99
Lombok Barat	8,510	8,588	8,698	10,996	9,403	8,561	8,993	10,401	11,401	12,132	1.01	1.42	1.43	1.29	0.82	1.35	1.10	1.17
Lombok Tengah	813	870	904	956	1,024	1,084	1,150	1,219	1,293	1,340	1.33	1.24	1.65	1.18	1.20	1.17	1.40	1.10
Lombok Timur	14,824	17,035	18,321	10,462	12,333	9,917	8,591	13,501	13,714	16,383	0.67	1.65	1.11	0.71	0.82	1.91	1.57	1.21
Sumbawa	14,043	18,542	19,228	19,030	19,860	20,865	24,027	21,850	21,938	22,365	1.49	1.07	1.59	1.36	1.26	0.93	1.18	1.02
Dompu	5,020	5,487	5,262	5,908	5,754	6,094	5,889	6,720	5,177	6,940	1.21	1.14	1.38	1.18	1.00	1.18	1.17	1.03
Bima	16,187	12,395	14,728	17,354	16,352	19,349	19,408	19,547	19,645	19,465	1.20	1.01	1.20	1.07	1.12	1.00	1.12	1.00
Sumba Barat	714	719	1,329	1,393	1,427	1,460	1,443	1,159	1,395	1,596	2.05	1.09	2.24	1.95	1.04	1.11	1.15	1.38
Sumba Timur	4,254	4,689	3,589	3,620	3,710	3,402	4,064	5,052	4,706	4,725	0.80	1.39	1.11	0.85	1.12	1.16	1.31	0.94
Manggarai	5,015	3,450	6,922	6,007	6,158	5,940	5,964	5,935	7,509	5,474	1.18	0.92	1.09	1.20	0.99	0.92	0.91	0.92
Ngada	2,452	2,402	4,377	3,980	4,079	4,092	3,666	4,380	4,707	4,333	1.67	1.06	1.77	1.62	0.92	1.18	1.09	0.99
Ende	6,483	6,126	7,467	6,625	6,790	6,050	6,033	6,886	7,060	7,200	0.93	1.19	1.11	1.02	0.91	1.19	1.09	1.05
Sikka	10,125	8,558	8,345	5,128	5,256	5,748	6,173	6,320	6,395	7,911	0.57	1.38	0.78	0.51	1.20	1.28	1.54	1.25
Flores Timur/Lembata	9,013	9,327	6,033	6,414	6,574	8,628	8,772	8,231	10,894	11,102	0.96	1.29	1.23	0.71	1.37	1.27	1.73	1.35
Alor	3,067	3,100	3,103	3,585	3,945	3,728	3,793	6,077	6,448	6,794	1.22	1.82	2.22	1.17	1.06	1.79	1.90	1.12
Kupang	10,547	15,245	14,441	20,048	20,549	20,885	21,453	18,595	31,204	28,082	1.98	1.34	2.66	1.90	1.07	1.31	1.40	1.51
Timor Tensel	35	38	49	43	44	48	40	22	268	27	1.38	0.55	0.76	1.22	0.93	0.67	0.62	1.21
Timor Tenuta	165	93	95	93	95	138	143	131	402	272	0.83	1.97	1.64	0.56	1.54	1.90	2.93	2.07
Belu	1,927	1,673	3,286	3,293	3,375	2,101	2,077	2,098	2,124	2,083	1.09	0.99	1.08	1.71	0.63	1.00	0.63	0.99
Zone Production Total	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	1990/95	1995/99	1990/99	1990/93	1993/96	1996/99	1993/99	1997/99
Lombok	24,146	26,494	27,924	22,414	22,760	19,561	18,734	25,121	26,407	16,383	0.81	0.84	0.68	0.93	0.84	0.87	0.73	0.65
Sumbawa	35,250	36,424	39,219	42,292	41,966	46,308	49,324	48,117	46,760	48,769	1.31	1.05	1.38	1.20	1.17	0.99	1.15	1.01
Sumba	4,968	5,408	4,918	5,012	5,138	4,862	5,507	6,211	6,100	6,321	0.98	1.30	1.27	1.01	1.10	1.15	1.26	1.02
West Flores	7,466	5,851	11,299	9,987	10,237	10,032	9,631	10,314	12,215	9,807	1.34	0.98	1.31	1.34	0.96	1.02	0.98	0.95
East Flores	25,622	24,011	21,845	18,167	18,621	20,426	20,977	21,437	24,349	26,213	0.80	1.28	1.02	0.71	1.15	1.25	1.44	1.22
Alor	3,067	3,100	3,103	3,585	3,945	3,728	3,793	6,077	6,448	6,794	1.22	1.82	2.22	1.17	1.06	1.79	1.90	1.12
Timor	12,674	17,050	17,871	23,476	24,063	23,172	23,712	20,846	33,998	30,463	1.83	1.31	2.40	1.85	1.01	1.28	1.30	1.46
NTB Total	59,396	62,918	67,142	64,706	64,726	65,869	68,058	73,237	73,167	65,152	1.11	0.99	1.10	1.09	1.05	0.96	1.01	0.89
NTT Total	53,796	55,419	59,036	60,227	62,003	62,220	63,619	64,885	83,110	79,598	1.16	1.28	1.48	1.12	1.06	1.25	1.32	1.23
Study Area Total	113,192	118,336	126,178	124,933	126,728	128,089	131,678	138,122	156,277	144,751	1.13	1.13	1.28	1.10	1.05	1.10	1.16	1.05

**Table 2.4.2 Fishermen's Problems and Needs****Management Problems of Fishermen**

Area	Lack of manpower	Lack of successor	Lack of fund	Decline of fish price	Increase of cost	Competition	Low income	Unable to live with fishing
Lombok	0%	7%	100%	24%	67%	68%	11%	4%
Sumbawa	56%	11%	46%	38%	57%	20%	39%	2%
Flores	66%	57%	87%	47%	67%	37%	65%	43%
Alor	63%	22%	75%	65%	42%	30%	32%	0%
Sumba	76%	47%	61%	28%	42%	33%	22%	10%
Timor	63%	0%	97%	47%	17%	43%	13%	0%
NTB Total	39%	10%	62%	34%	60%	34%	31%	3%
NTT Total	67%	48%	82%	46%	57%	36%	51%	31%
Study Area	54%	31%	73%	40%	59%	35%	42%	18%

**Technical Problem of Fishermen**

Area	Lack of ice	Fishing gear purchase	Distance to fishing ground	Pollution of fishing ground	Decline of resources	Low fish quality
Lombok	0%	82%	81%	16%	49%	47%
Sumbawa	43%	42%	51%	13%	36%	31%
Flores	67%	58%	89%	27%	62%	79%
Alor	27%	28%	80%	27%	40%	62%
Sumba	33%	71%	51%	16%	41%	34%
Timor	0%	70%	33%	43%	100%	0%
NTB Total	30%	54%	60%	14%	40%	36%
NTT Total	53%	58%	79%	26%	58%	66%
Study Area	43%	56%	70%	20%	50%	52%

**Problems on Fish landing and Selling**

Area	Landing time	Limited buyers	Landing charge	Difficulty to unload	Price Info.
Lombok	0%	98%	1%	39%	94%
Sumbawa	18%	35%	6%	21%	57%
Flores	39%	39%	5%	12%	81%
Alor	62%	38%	2%	12%	90%
Sumba	13%	63%	12%	63%	30%
Timor	50%	43%	0%	0%	50%
NTB Total	13%	54%	4%	26%	68%
NTT Total	38%	43%	5%	20%	71%
Study Area	26%	48%	5%	23%	70%

**Intention to Expand Fishing Activity**

Area	Intention to expand activities	New fishing grounds	Better fishing gear	Sell fish at other sites	Start new business	Want to change work
Lombok	51%	51%	51%	0%	0%	6%
Sumbawa	87%	39%	57%	7%	5%	11%
Flores	94%	84%	94%	0%	0%	0%
Alor	90%	57%	83%	0%	0%	0%
Sumba	76%	8%	76%	0%	0%	0%
Timor	93%	33%	60%	0%	0%	0%
NTB Total	76%	43%	55%	5%	3%	9%
NTT Total	90%	65%	88%	0%	0%	0%
Study Area	84%	55%	73%	2%	2%	4%

Table 2.4.3 Data on Fishing Capacity by Districts (1999)

(1) Comparison of Productivity and Occupancy Rate by Fishing Households in the Marine Fishery Sub-Sector

District	Marine Fish Production		Average value of fish (Rp/kg)	No. of Fishing Household (RTP)	Production per RTP		Number of fishing boats				Occupancy Rate by RTP			Motorization Rate
	Volume (ton)	Value (million Rp)			Volume (ton)	Value (million Rp)	Non-motorized	Outboard	Inboard	Total	Boat	Engine	Inboard	
Lombok Barat	12,132	91,996	7,583	3,997	3.04	23.02	2,861	324	8	3,193	79.9%	8.3%	0.2%	10.4%
Lombok Tengah	1,340	4,897	3,656	1,335	1.00	3.67	468	109	5	582	43.6%	8.5%	0.4%	19.6%
Lombok Timur	16,383	117,842	7,193	4,128	3.97	28.55	2,734	1,613	136	4,483	108.6%	42.4%	3.3%	39.0%
Sumbawa	22,365	52,581	2,351	3,809	5.87	13.80	2,327	1,125	115	3,567	93.6%	32.6%	3.0%	34.8%
Dompu	6,940	19,884	2,865	1,227	5.66	16.21	732	363	121	1,216	99.1%	39.4%	9.9%	39.8%
Bima	19,465	32,245	1,657	1,848	10.53	17.45	309	259	1,295	1,863	100.8%	84.1%	70.1%	83.4%
Sumba Barat	1,596	5,155	3,230	2,443	0.65	2.11	376	0	6	382	15.6%	0.2%	0.2%	1.6%
Sumba Timur	4,725	8,404	1,778	3,686	1.28	2.28	1,080	36	13	1,129	30.6%	1.3%	0.4%	4.3%
Manggarai	5,474	23,962	4,377	4,115	1.33	5.82	667	26	275	968	23.5%	7.3%	6.7%	31.1%
Ngada	4,333	10,920	2,520	1,130	3.83	9.66	702	20	30	752	66.3%	4.4%	2.7%	6.6%
Ende	7,200	28,240	3,922	2,960	2.43	9.54	1,922	27	331	2,280	77.0%	12.1%	11.2%	15.7%
Sikka	7,911	27,674	3,498	2,860	2.77	9.68	2,187	200	95	2,482	86.8%	10.3%	3.3%	11.9%
Flores Timur/Lembata	11,102	14,056	1,266	4,068	2.73	3.46	3,407	123	216	3,746	92.1%	8.3%	5.3%	9.0%
Alor	6,794	8,333	1,226	1,711	3.97	4.87	1,288	9	58	1,355	79.2%	3.9%	3.4%	4.9%
Kupang	28,082	74,222	2,643	3,005	9.34	24.70	1,686	302	684	2,672	88.9%	32.8%	22.8%	36.9%
Timor Tensei	27	41	1,539	679	0.04	0.06	250	10	0	260	38.3%	1.5%	0.0%	3.8%
Timor Tenuta	272	703	2,590	704	0.39	1.00	517	3	14	534	75.9%	2.4%	2.0%	3.2%
Belu	2,083	5,313	2,550	1,077	1.93	4.93	957	18	20	995	92.4%	3.5%	1.9%	3.8%
Production by Zone														
Lombok	29,854	214,734	7,193	9,460	3.16	22.70	6,063	2,046	149	8,258	87.3%	23.2%	1.6%	26.6%
Sumbawa	48,769	104,711	2,147	6,884	7.08	15.21	3,368	1,747	1,531	6,646	96.5%	47.6%	22.2%	49.3%
Sumba	6,321	13,558	2,145	6,129	1.03	2.21	1,456	36	19	1,511	24.7%	0.9%	0.3%	3.6%
West Flores	9,807	34,881	6,897	5,245	1.87	6.65	1,369	46	305	1,720	32.8%	6.7%	5.8%	20.4%
East Flores	26,215	69,970	8,687	9,888	2.65	7.08	7,516	350	642	8,508	86.0%	10.0%	6.5%	11.7%
Alor	6,794	8,333	1,226	1,711	3.97	4.87	1,288	9	58	1,355	79.2%	3.9%	3.4%	4.9%
Timor	30,463	80,279	2,635	5,465	5.57	14.69	3,410	333	718	4,461	81.6%	19.2%	13.1%	23.6%
NTB Average	78,624	319,445	4,063	16,344	4.81	19.55	9,431	3,793	1,680	14,904	91.2%	33.5%	10.3%	36.7%
NTT Average	79,598	207,021	21,591	28,438	2.80	7.28	15,039	774	1,742	17,555	61.7%	8.8%	6.1%	14.3%
Survey Area Total	158,222	526,466	25,654	44,782	3.53	11.76	24,470	4,567	3,422	32,459	72.5%	17.8%	7.6%	24.6%

Remarks: Marine fish production in Flores Timur and Lembata in 2000 is 7,986 tons and 1,286 tons, respectively.

Source: Fisheries Statistics of NTT and NTB 1999

(2) Number of Fishing Boats by Type and District

District	Number of non-motorized boats				No. of outboard motor boats	Number of inboard engine boats				Percent of non-motorized boats				
	Jukung	Planked boat without motor	small	medium		large	<5GT	5-10GT	10-20GT	20-50GT	Dug-out boat	Planked boat without motor	small	medium
Lombok Barat	2,003	858	0	0	324	8	0	0	0	70%	30%	0%	0%	0%
Lombok Tengah	468	0	0	0	109	3	2	0	0	100%	0%	0%	0%	0%
Lombok Timur	2,063	415	256	0	1,613	10	126	0	0	75%	15%	9%	0%	0%
(Lombok Total)	4,534	1,273	256	0	2,046	21	128	0	0	75%	21%	4%	0%	0%
Sumbawa	2,179	64	68	16	1,125	115	0	0	0	94%	3%	3%	1%	0%
Dompu	732	0	0	0	363	0	57	64	0	100%	0%	0%	0%	0%
Bima	234	75	0	0	259	632	351	272	40	76%	24%	0%	0%	0%
(Sumbawa Island Total)	3,145	139	68	16	1,747	747	408	336	40	93%	4%	2%	0%	0%
NTB Total	7,679	1,412	324	16	3,793	768	536	336	40	81%	15%	3%	0%	0%
Sumba Barat	376	0	0	0	0	6	0	0	0	100%	0%	0%	0%	0%
Sumba Timur	1,015	65	0	0	36	13	0	0	0	94%	6%	0%	0%	0%
(Sumba Island Total)	1,391	65	0	0	36	19	0	0	0	96%	4%	0%	0%	0%
Manggarai	314	332	21	0	26	275	0	0	0	47%	50%	3%	0%	0%
Ngada	211	411	80	0	20	30	0	0	0	30%	59%	11%	0%	0%
Ende	220	1,702	0	0	27	302	29	0	0	11%	89%	0%	0%	0%
Sikka	2,051	136	0	0	200	33	35	23	4	94%	6%	0%	0%	0%
Flores Timur/Lembata	2,922	371	114	0	123	150	56	10	0	86%	11%	3%	0%	0%
Alor	1,211	77	0	0	9	54	4	0	0	94%	6%	0%	0%	0%
(Flores Island Total)	6,929	3,029	215	0	405	844	124	33	4	68%	30%	2%	0%	0%
Kupang	1,320	366	0	0	302	262	271	136	15	78%	22%	0%	0%	0%
Timor Tensei	250	0	0	0	10					100%	0%	0%	0%	0%
Timor Tenuta	255	262	0	0	3	14				49%	51%	0%	0%	0%
Belu	475	482	0	0	18	20				50%	50%	0%	0%	0%
(Timor Island Total)	2,300	1,110	0	0	333	296	271	136	15	67%	33%	0%	0%	0%
NTT Total	10,620	4,204	215	0	774	1,159	395	169	19	71%	28%	1%	0%	0%

Remarks: Marine fish production in Flores Timur and Lembata in 2000 is 7,586 tons and 1,286 tons, respectively.

Source: Fisheries Statistics of NTT and NTB 1999

Table 2.4.4 Sustainable Potential of Marine Fish by Water Zone, Fish Type and District (NTB)

Unit: tons

Water Zone	Type of Fish	District						Total
		Lombok Barat	Lombok Tengah	Lombok Timur	Sumbawa	Dompu	Bima	
Jawa	Pelagic	3,597	-	2,422	-	-	-	6,019
	Demersal	5,615	-	3,782	-	-	-	9,397
	P + D	9,212	-	6,204	-	-	-	15,416
Flores	Pelagic	-	-	-	4,019	1,035	5,609	10,663
	Demersal	-	-	-	4,066	1,047	5,672	10,785
	P + D	-	-	-	8,085	2,082	11,281	21,448
Samudera	Pelagic	2,160	1,989	1,940	11,040	1,704	2,456	21,289
Hindia	Demersal	2,402	2,211	2,157	12,274	1,894	2,730	23,668
	P + D	4,562	4,200	4,097	23,314	3,598	5,186	44,957
Lombok Strait	Pelagic	407	-	-	-	-	-	407
	Demersal	2,016	-	-	-	-	-	2,016
	P + D	2,423	-	-	-	-	-	2,423
Alas Strait	Pelagic	-	-	195	116	-	-	311
	Demersal	-	-	904	543	-	-	1,447
	P + D	-	-	1,099	659	-	-	1,758
Sape Strait	Pelagic	-	-	-	-	-	564	564
	Demersal	-	-	-	-	-	4,266	4,266
	P + D	-	-	-	-	-	4,830	4,830
Sumba Strait	Pelagic	-	-	-	-	-	1,184	1,184
	Demersal	-	-	-	-	-	2,295	2,295
	P + D	-	-	-	-	-	3,479	3,479
Saleh Bay	Pelagic	-	-	-	231	206	-	437
	Demersal	-	-	-	1,064	949	-	2,013
	P + D	-	-	-	1,295	1,155	-	2,450
Cempi Bay	Pelagic	-	-	-	-	72	-	72
	Demersal	-	-	-	-	585	-	585
	P + D	-	-	-	-	657	-	657
Bima Bay	Pelagic	-	-	-	-	-	55	55
	Demersal	-	-	-	-	-	221	221
	P + D	-	-	-	-	-	276	276
Waworada Bay	Pelagic	-	-	-	-	-	83	83
	Demersal	-	-	-	-	-	673	673
	P + D	-	-	-	-	-	756	756
Total	Pelagic	6,164	1,989	4,557	15,406	3,017	9,951	40,084
	Demersal	10,033	2,211	6,843	17,947	4,475	15,857	57,366
	P + D	16,197	4,200	11,400	33,353	7,492	25,808	98,450

Source: Dinas Perikanan Propinsi NTB, 1999

**Table 2.4.5 Coastal Fisheries Resource Potential in NTT**

				Unit: tons
District	Coast	Pelagics	Demersals	Total
Sumba Barat	North Coast	7,175	1,285	8,460
	South Coast	7,175	1,285	8,460
Sumba Timur	North Coast	14,350	2,570	16,920
	South Coast	14,350	2,570	16,920
Manggarai	North Coast	20,154	3,110	23,264
	South Coast	14,350	2,570	16,920
Ngada	North Coast	3,358	1,808	5,166
	South Coast	3,358	1,808	5,166
Ende	North Coast	10,077	1,555	11,632
	South Coast	7,175	1,285	8,460
Sikka	North Coast	10,077	1,555	11,632
	South Coast	7,175	1,285	8,460
East Flores	North Coast	10,077	1,555	11,632
	South Coast	7,175	1,285	8,460
Lembata	North Coast	3,631	1,955	5,586
	South Coast	3,246	1,748	4,994
Alor	North Coast	20,154	3,110	23,264
	South Coast	14,350	2,570	16,920
Kupang	North Coast	7,175	1,285	8,460
	South Coast	7,175	1,285	8,460
Roti & Savu	Both Coasts	7,175	1,285	8,460
Timor Tensel	South Coast	7,175	1,285	8,460
Timor Tenuta	North Coast	7,175	1,285	8,460
Belu	North Coast	3,587	642	4,229
	South Coast	3,587	642	4,229
<b>Total</b>		<b>220,456</b>	<b>42,618</b>	<b>263,074</b>

Source:

- (1) Rencana Induk Pengembangan Perikanan 2000-2004 Estimated by Johannes Widodo (2000), modified.
- a) All districts of NTT except Ngada and Lembata calculated from "Table 2.2.2 : Potensi dan TAC Sumber Daya Ikan Laut FKPPS Laut Flores dan Selat Makasar, FKPPS, Samudera India, dan Propinsi Nusa Tenggara Timur.
- b) NTT Flores Sea side divided by North coast 7 Kabupaten, 9 sections Manggarai and Alor are 2 sections each, due to almost double length of coastal line from others.
- c) NTT Indian Ocean side (south coast) is divided by 13 districts, 21 sections with additional 3 sections of Kupang. (2 sec. in Timor Is. and 1 sec. in Roti & Savu), 2 sections in Sumba Barat and 4 sec. in Sumba Timur.
- (2) Ngada district: Potensi Perikanan Kabupaten Ngada, from Bupati Ngada. Proposal of Pangkalan Pendaratan Ikan, 2001. Figure out both north and south coast together which are almost same cost line. So, that divided by 2.
- (3) Lembata district: Gambaran Potensi dan Produksi Penangkapan Kabupaten Lembata Serta Tingkat Pemanfaatannya Keadaan, Tahun 2000. Dinas Perikanan Kab. Lembata.

Table 2.4.6 Current Resource Exploitation Level Based on Total Allowable Catch (TAC)

District	Catch in 1999 (ton/year) <sup>1)</sup>								Marine Fish Resources (TAC) <sup>2)</sup>			Stock Exploitation Rate (TAC Base)		
	Demersal	Pelagics	Sub-Total	Crustacean	Mollusc	Others	Sub-Total	Total	Demersal	Pelagics	Total	Demersal	Pelagics	Total
Lombok Barat	3,783	7,972	11,755	255	95	0	350	12,105	6,164	10,033	16,197	61%	79%	73%
Lombok Tengah	156	986	1,142	26	72	0	98	1,240	1,989	2,211	4,200	8%	45%	27%
Lombok Timur	3,224	12,566	15,789	90	504	0	594	16,383	4,557	6,843	11,400	71%	184%	139%
(Lombok Total)	7,162	21,524	28,686	371	670	0	1,041	29,727	12,710	19,087	31,797	56%	113%	90%
Sumbawa	11,049	11,172	22,221	21	17	66	103	22,324	15,406	17,947	33,353	72%	62%	67%
Dompu	1,650	4,382	6,032	718	0	0	718	6,750	3,017	4,475	7,492	55%	98%	81%
Bima	1,809	15,477	17,286	172	2,007	0	2,179	19,465	9,951	15,857	25,808	18%	98%	67%
(Sumbawa Total)	14,508	31,031	45,539	911	2,023	66	3,000	48,539	28,374	38,279	66,653	51%	81%	68%
<b>NTB Total</b>	<b>21,670</b>	<b>52,555</b>	<b>74,225</b>	<b>1,281</b>	<b>2,693</b>	<b>66</b>	<b>4,041</b>	<b>78,266</b>	<b>41,084</b>	<b>57,366</b>	<b>98,450</b>	<b>53%</b>	<b>92%</b>	<b>75%</b>
Sumba Barat	384	1,165	1,549	30	17	0	47	1,596	2,570	14,350	16,920	15%	8%	9%
Sumba Timur	1,160	3,243	4,403	9	1	0	9	4,412	5,140	28,700	33,840	23%	11%	13%
(Sumba Total)	1,544	4,408	5,952	39	17	0	56	6,008	7,710	43,050	50,760	20%	10%	12%
Manggarai	443	4,785	5,229	0	245	0	245	5,474	5,680	34,504	40,184	8%	14%	13%
Ngada	748	2,908	3,656	24	358	295	677	4,333	3,616	6,716	10,332	21%	43%	35%
Ende	998	6,779	7,777	0	59	0	59	7,836	2,840	17,252	20,092	35%	39%	39%
Sikka	999	6,861	7,860	0	51	0	51	7,911	2,840	17,252	20,092	35%	40%	39%
Flores Timur/Lembata	2,041	8,921	10,962	0	116	8	124	11,085	6,543	24,129	30,672	31%	37%	36%
Alor	2,483	4,297	6,780	3	7	5	15	6,794	5,680	34,504	40,184	44%	12%	17%
(Flores Total)	7,712	34,552	42,263	27	836	307	1,171	43,434	27,199	134,357	161,556	28%	26%	26%
Kupang	4,846	19,837	24,683	733	933	470	2,137	26,820	3,855	21,525	25,380	126%	92%	97%
Timor Tensel	6	20	27	0	0	0	0	27	1,285	7,175	8,460	0%	0%	0%
Timor Tenuta	44	219	263	9	0	0	9	272	1,285	7,175	8,460	3%	3%	3%
Belu	228	1,847	2,075	9	0	0	9	2,083	1,285	7,175	8,460	18%	26%	25%
(Timor Total)	5,125	21,923	27,047	751	933	470	2,154	29,201	7,710	43,050	50,760	66%	51%	53%
<b>NTT Total</b>	<b>14,380</b>	<b>60,883</b>	<b>75,262</b>	<b>816</b>	<b>1,787</b>	<b>777</b>	<b>3,381</b>	<b>78,643</b>	<b>42,619</b>	<b>220,457</b>	<b>263,076</b>	<b>34%</b>	<b>28%</b>	<b>29%</b>

Note: 1) Provincial Fisheries Statistics of NTB and NTT, 1999

2 Refer to Tables 2.4.4 and 2.4.5.

Table 2.5.1 Production Volume of Brackish Water Pond Culture by Species and Province (1998)

Unit: ton

Province	Fin Fishies							Crustaceans							Grand Total
	River eel	Milk fish	Mullet	Gianat Sea-perch	Tillapia	Others	Sub-Total	Giant Tiger Prawn	Banana Prawn	Metapenaeus Shrimp	Mysids	Swimming Crab	Mud Crab	Sub-Total	
D.I.Ache	-	6,033	95	31	887	375	7,421	3,386	1,817	923	-	428	-	6,554	13,975
Sumatra Utara	-	-	-	-	21	1	22	10,184	3,955	53	-	3	-	14,195	14,217
Sumatra Barat	-	-	-	-	-	-	0	-	-	-	-	-	-	0	0
Riau	-	-	13	-	-	17	30	148	30	-	-	-	-	178	208
Jambi	-	61	39	13	-	36	149	45	121	85	-	-	-	251	400
Sumatra Selatan	-	-	-	-	-	-	0	5,210	-	-	-	-	-	5,210	5,210
D.K.I. Jakarta	-	-	-	-	-	-	0	-	-	-	-	-	-	0	0
Lampung	-	935	529	23	50	20,643	22,180	8,415	561	-	-	-	-	8,976	31,156
Bengkulu	-	15	2	-	13	4	34	402	-	-	-	1	-	403	437
Jawa Barat	-	24,425	3,311	566	13,231	4,557	46,090	6,254	3,606	7,320	203	21	-	17,404	63,494
Jawa Tengah	29	19,972	1,256	340	1,298	2,174	25,069	4,008	3,289	3,180	17	91	-	10,585	35,654
D.I. Yogyakarta	-	-	-	-	-	-	0	-	-	-	-	-	-	0	0
Jawa Timur	6,792	30,942	1,112	270	2,977	5,538	47,631	13,999	6,102	5,786	20	746	199	26,852	74,483
Bali	-	24	-	-	-	-	24	826	255	-	-	-	-	1,081	1,105
NTB	-	5,444	162	-	416	200	6,222	746	103	91	-	-	-	940	7,162
NTT	-	127	5	-	-	2	134	37	5	-	-	-	-	42	176
Timor Timur	-	-	-	-	-	-	0	-	-	-	-	-	-	0	0
Kalimantan Barat	-	15	-	-	-	-	15	1,427	-	-	-	-	-	1,427	1,442
Kalimantan Tengah	-	-	-	-	-	-	0	-	-	-	-	-	-	0	0
Kalimantan Selatan	-	103	20	-	-	9	132	1,213	163	-	-	-	-	1,376	1,508
Kalimantan Timur	-	3,341	552	-	-	523	4,416	1,596	1,435	73	-	155	-	3,259	7,675
Sulawesi Utara	-	64	15	-	9	14	102	42	5	-	-	-	-	47	149
Sulawesi Tengah	-	5,272	357	2	-	108	5,739	306	61	-	-	9	-	376	6,115
Sulawesi Selatan	-	56,144	860	669	2,215	799	60,687	14,919	846	2,213	24	382	667	19,051	79,738
Sulawesi Tenggara	-	5,377	57	125	458	184	6,201	1,472	234	710	-	229	-	2,645	8,846
Maluku	-	12	1	-	-	1	14	189	1	-	-	-	-	190	204
Irian Jaya	-	360	-	-	18	19	397	-	-	-	-	-	-	0	397
<b>Total</b>	<b>6,821</b>	<b>158,666</b>	<b>8,386</b>	<b>2,039</b>	<b>21,593</b>	<b>35,204</b>	<b>232,709</b>	<b>74,824</b>	<b>22,589</b>	<b>20,434</b>	<b>264</b>	<b>2,065</b>	<b>866</b>	<b>121,042</b>	<b>353,751</b>

Source: Statistik Perikanan Indonesia, 1998



**Table 2.5.2 Number of Brackish Water Culture Households by Species of  
of Fish Seeded and Province (1998)**

Unit: households

Province	Milk Fish	Shrimp	Milk Fish & Shrimp	Non Seeded	Total
D.I.Ache	1,526	13,270	2,572	-	17,368
Sumatra Utara	-	3,051	384	-	3,435
Sumatra Barat	-	-	-	-	0
Riau	-	-	-	323	323
Jambi	-	-	-	173	173
Sumatra Selatan	-	-	-	2,770	2,770
D.K.I. Jakarta	-	-	-	-	0
Lampung	1,152	1,452	467	14,179	17,250
Bengkulu	18	15	5	10	48
Jawa Barat	5,854	2,635	835	2,783	12,107
Jawa Tengah	13,311	4,725	2,290	422	20,748
D.I. Yogyakarta	-	-	-	-	0
Jawa Timur	6,161	4,101	3,992	5,036	19,290
Bali	12	98	-	-	110
NTB	1,917	542	-	-	2,459
NTT	167	-	-	115	282
Timor Timur	-	-	-	-	0
Kalimantan Barat	26	269	62	8	365
Kalimantan Tengah	-	-	-	-	0
Kalimantan Selatan	173	925	104	18	1,220
Kalimantan Timur	983	4,140	1,135	50	6,308
Sulawesi Utara	87	284	7	-	378
Sulawesi Tengah	1,002	35	748	-	1,785
Sulawesi Selatan	11,103	7,053	14,734	-	32,890
Sulawesi Tenggara	1,760	963	1,703	120	4,546
Maluku	5	1	6	-	12
Irian Jaya	-	-	-	544	544
<b>Total</b>	<b>45,257</b>	<b>43,559</b>	<b>29,044</b>	<b>26,551</b>	<b>144,411</b>

Source: Statistik Perikanan Indonesia, 1998

Table 2.5.3 Brackish Water Culture Pond Area and Unit Production by Province (1998)

Province	Production Volume (ton)	Pond area (Ha)	Unit Production (kg/Ha)
D.I.Ache	13,975	35,816	390
Sumatra Utara	14,217	5,894	2,412
Sumatra Barat			
Riau	208	288	722
Jambi	400	410	976
Sumatra Selatan	5,210	159	32,767
D.K.I. Jakarta			
Lampung	31,156	41,177	757
Bengkulu	437	346	1,263
Jawa Barat	63,494	26,627	2,385
Jawa Tengah	35,654	22,058	1,616
D.I. Yogyakarta			
Jawa Timur	74,483	56,228	1,325
Bali	1,105	451	2,450
NTB	7,162	4,859	1,474
NTT	176	240	733
Timor Timur			
Kalimantan Barat	1,442	1,100	1,311
Kalimantan Tengah	0		
Kalimantan Selatan	1,508	3,546	425
Kalimantan Timur	7,675	8,939	859
Sulawesi Utara	149	578	258
Sulawesi Tengah	6,115	5,494	1,113
Sulawesi Selatan	79,738	80,703	988
Sulawesi Tenggara	8,846	10,278	861
Maluku	204	389	524
Irian Jaya	397	119	3,336
Total/Average	353,751	305,699	1,157

Remarks: Production of 32,767kg/ha in Sumatra Selatan seems to be unrealistic; verification of data is needed.

Source: Statistik Perikanan Indonesia, 1998

**Table 2.5.4 Cultivable Species and Aquaculture Situation in Indonesia**

Cultivable Species	Techniques		Aquaculture Activities	
	Hatchery	Growing	Hatchery	Growing
<b>Fin Fishes</b>				
Milkfish	E	E	P	P
<i>Chromileptes altivelis</i>	E	R	P	N
Kerapu Karang	N	N	N	N
<i>Epinephelus fuscoguttatus</i>	E	E	P	N
Kerapu Lumpur	E	E	P	P
Giant sea perch	E	E	P	P
Red snappers	R	R	N	N
<i>Siganus</i> sp.	E	E	N	N
Emperor snapper	N	E	N	N
<b>Crustaceans</b>				
Giant tiger prawn	E	E	P	P
Banana prawn	E	E	P	P
Swim crab	R	N	N	N
Mud crab	R	P	N	P
<b>Shell Fishes</b>				
Cupped oyster	E	E	N	N
Blood cockles	N	E	N	N
Pearl Oyster	E	For release	P	P
Abarone	E	For release	N	N
Trocaus	E	For release		
<b>Annelid</b>				
Sea cucumber	R	R	N	P
<b>Legend</b>				
Established Technics	E; Commercially established R; Research level N; Not established			
Aquaculture activities	P; Private sector runs the bussiness (including Kelompok, etc) R; Only research institute keeps fish N; No			

**Table 2.5.5 Production Volume of Grouper Seeds in Bali (2001)**

	Unit: 1000 fingerlings							
	Jan.	Feb.	March	April	May	June	July	Total
<i>Cromileptes altivelis</i>	150	75	200	100	150	80	50	805
<i>Epinephelus fuscoguttatus</i>				20	60	100	90	270
<b>Total</b>	150	75	200	120	210	180	140	1,075

Source: Gondol Research Institute of Mariculture

**Table 2.5.6 Initial Investment for Cage Culture**

Floating cage	Rp. 25,698,500
Rearing equipment	Rp. 3,130,000
<b>Total</b>	<b>Rp. 28,828,500</b>
Depreciation period	3 years
Reserve	Rp. 9,609,500

**Table 2.5.7 Depreciation Reserve per Production by Each Species**

Species	Operation Period (month)	Production volume/time (kg)	Total prod./ 3years (kg)	Reserve/ production (Rp./kg)
Chromileptes artivelis	14	300	771	12,457
Epinephelus fuscoguttatus	8	300	1,350	7,118
Lates calicalfer	6	2,000	12,000	801
Rabit fish	6	2,000	12,000	801

**Table 2.5.8 Balance of Unit Cost and Unit Price of Cultivable Species**

Species	Operation cost (Rp.1000)				Reserve/ production (Rp./kg)	Unit cost (Rp./kg)	Unit price (Rp./kg)	Balance (Rp./kg)
	Seed	Diets	Wages	Total				
Chromileptes artivelis	15,000	7,500	12,600	35,100	12,457	70,957	283,500	212,543
Epinephelus fuscoguttatu	10,000	7,500	7,200	24,700	7,118	48,285	72,900	24,615
Lates calicalfer	10,500	52,500	5,400	68,400	801	17,087	10,000	-7,087
Rabit fish	350	6,300	5,400	12,050	801	3,670	10,000	6,330

Remarks: Seed price, wholesale price and other cost are estimated based on the result of field survey  
FCR of each species is assumed 5

**Table 2.5.9 Estimates of Live Marine Fish Exported to Hong Kong by Air and Foreign Vessels in 1999**

Species	Volume (ton)	%
Green Grouper	1,789	19.5
Leopard Coral Trout	1,439	15.7
Flowery Grouper	317	3.5
Spotted Coral Trout	76	0.8
Tiger Grouper	60	0.7
Giant Grouper	15	0.2
High-finned Grouper	5	0.1
Other Grouper	1,598	17.5
Hump-head Grouper	5	0.1
Other Wrasses and Parrotfish	1	0.0
Mangrove Snapper	566	6.2
Otner Marine Fish	3,285	35.9
<b>Total</b>	<b>9,156</b>	<b>100.0</b>

Note: Live fish from Thailand, Mainland China, Indonesia, Taiwan and Malaysia, etc

Source: The Second Asia-Pacific Seminar-Workshop on the Live Reef Fish Trade, 7-8, August 2000

**Table 2.5.10 Estimates of Live Marine Fish Imported into Hong Kong by HK Fishing Vessels in 1999**

Species	Volume (ton)	%	Amount (HK\$M)
Green Grouper	340	7.7	30.26
Leopard Coral Trout	316	7.1	69.88
Flowery Grouper	471	10.6	71.56
Spotted Coral Trout	274	6.2	46.45
Tiger Grouper	435	9.8	50.07
Giant Grouper	17	0.4	2.98
High-finned Grouper	14	0.3	6.46
Other Grouper	530	12.0	48.98
Hump-head Grouper	100	2.3	22.72
Other Wrasses and Parrotfish	217	4.9	11.82
Mangrove Snapper	1347	30.4	53.77
Otner Marine Fish	368	8.3	16.73
<b>Total</b>	<b>4,429</b>	<b>100.0</b>	<b>431.68</b>

Note : Live fish from Indonesia, Malaysia, etc.

Source: The Second Asia-Pacific Seminar-Workshop on the Live Reef Fish Trade, 7-8, August 2000

**Table 2.5.11 Balance of Unit Cost and Unit Price of Groupers in Case of 50 Percent of Market Price**

Species	Unit cost (Rp./kg)	Unit price (Rp./kg)	Balance (Rp./kg)
Chromileptes artivelis	70,957	141,750	70,793
Epinephelus fuscoguttatus	48,285	36,450	-11,835

**Table 2.5.12 Operation Cost for Seaweed Culture**

No.	Specifications	Quantity	Price/unit	Total
1	Bamboo rod	5 pcs	7,000	35,000
2	Rope 4mm	2 kg	16,000	32,000
3	Rope 8mm	2 kg	16,500	33,000
4	Anchor	4 pcs	1,500	6,000
5	Seed	175 kg	1,000	175,000
6	Boat rental	1 set	25,000	25,000
Total				306,000

Source : Lombok Aquaculture Station

**Table 2.5.13 Production Volume of Brackish Water Pond by Districts (1990-1999)**

Unit: ton

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>NTB</b>										
Lombok Barat	599	1,073	871	1,083	505	461	484	496	527	466
Lombok Tengah	79	80	65	66	68	72	76	80	84	276
Lombok Timur	371	433	549	316	592	204	130	180	110	464
Sumbawa	477	575	539	772	268	668	1,172	1,330	1,220	1,109
Dompu	1,042	990	758	624	1,097	822	711	1,023	1,164	562
Bima	2,403	2,573	3,072	3,479	3,503	3,982	4,049	3,715	4,058	4,077
Mataram										
Sub-total	4,970	5,725	5,854	6,339	6,033	6,208	6,621	6,824	7,162	6,954
<b>NTT</b>										
Sumba Barat	-	-	-	-	-	-	-	-	-	1
Sumba Timur	2	8	9	15	16	6	5	2	12	1
Manggarai	2	1	3	4	4	4	20	2	8	9
Ngada	19	12	15	14	114	7	15	20	9	N.A.
Ende	-	-	-	-	-	-	-	15	-	-
Sikka	-	-	-	-	-	-	-	-	-	-
Flores Timur	-	-	-	-	-	-	-	-	-	-
Alor	-	-	1	1	-	1	1	-	3	3
Kupang	29	53	58	80	82	17	22	25	144	123
Timor Tengah Selatan	-	-	-	-	-	-	3	-	-	-
Timor Tengah Utara	16	24	22	29	29	27	23	27	26	28
Belu	7	5	10	10	11	46	29	27	20	26
Sub-total	75	103	118	153	448	108	117	118	221	191
Grand Total	5,045	5,828	5,971	6,492	6,481	6,316	6,739	6,942	7,383	7,145

Note: Kabupaten Lembata is not included in "Flores Timur", and Kota Kupang is not included in "Kupang".

Source: Buku Tahunan Statistik Perikanan NTB, and NTT, 1990

Table 2.5.14 Production Volume of Finfish in Brackish Water Pond by Districts (1990-1999)

	Unit: ton									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>NTB</b>										
Lombok Barat	272	320	401	498	288	263	276	283	300	266
Lombok Tengah	77	75	63	65	66	69	72	76	79	265
Lombok Timur	336	305	403	188	275	89	44	39	1	64
Sumbawa	477	464	481	119	268	668	1,015	1,096	932	557
Dompu	844	788	588	558	879	567	444	825	870	232
Bima	2,381	2,396	2,515	3,400	3,440	3,973	4,033	3,698	4,040	4,050
Mataram										
Sub-total	4,387	4,348	4,450	4,828	5,217	5,629	5,885	6,016	6,222	5,434
<b>NTT</b>										
Sumba Barat	-	-	-	-	-	-	-	-	0	1
Sumba Timur	0	-	-	-	-	-	3	1	12	1
Manggarai	2	1	3	4	4	4	20	2	7	9
Ngada	19	12	15	14	14	7	13	19	9	N.A.
Ende	-	-	-	-	-	-	-	15	-	-
Sikka	-	-	-	-	-	-	-	-	-	-
Flores Timur	-	-	-	-	-	-	-	-	-	-
Alor	-	-	1	1	-	1	1	-	2	3
Kupang	7	13	18	65	42	3	14	25	85	68
Timor Tengah Selatan	-	0	0	0	0	-	3	-	-	-
Timor Tengah Utara	16	17	15	19	17	17	12	25	26	25
Belu	3	4	8	6	3	31	17	24	20	18
Sub-total	46	46	59	108	259	63	81	110	160	126
Grand Total	4,433	4,394	4,508	4,935	5,476	5,692	5,966	6,126	6,382	5,559

Note: Kabupaten Lembata is not included in "Flores Timur", and Kota Kupang is not included in "Kupang".

Source: Buku Tahunan Statistik Perikanan NTB, and NTT, 1990

Table 2.5.15 Production Volume of Shrimps in Brackish Water Pond by Districts in 1990-1999

	Unit: ton									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>NTB</b>										
Lombok Barat	327	753	470	585	217	199	208	213	226	200
Lombok Tengah	2	5	2	2	2	2	4	4	4	11
Lombok Timur	35	129	146	128	317	114	86	141	109	400
Sumbawa	-	111	59	653	-	-	157	235	288	552
Dompu	198	202	170	65	218	256	267	198	294	330
Bima	22	178	557	79	62	9	16	17	18	27
Mataram										
Sub-total	583	1,378	1,404	1,512	816	580	736	808	940	1,520
<b>NTT</b>										
Sumba Barat	-	-	-	-	-	-	-	-	-	-
Sumba Timur	2	8	9	15	16	6	2	1	-	-
Manggarai	-	-	-	-	-	-	-	-	1	-
Ngada	-	-	-	-	-	-	2	1	-	N.A.
Ende	-	-	-	-	-	-	-	-	-	-
Sikka	-	-	-	-	-	-	-	-	-	-
Flores Timur	-	-	-	-	-	-	-	-	-	-
Alor	-	-	-	-	-	-	-	-	1	-
Kupang	23	40	40	15	40	14	9	-	59	56
Timor Tengah Selatan	-	-	-	-	-	-	-	-	-	-
Timor Tengah Utara	-	7	8	10	12	10	11	3	-	2
Belu	5	2	2	4	8	15	13	3	-	8
Sub-total	29	57	58	45	189	45	36	8	61	65
Grand Total	612	1,435	1,462	1,556	1,004	625	772	816	1,001	1,586

Note: Kabupaten Lembata is not included in "Flores Timur", and Kota Kupang is not included in "Kupang".

Source: Buku Tahunan Statistik Perikanan NTB, and NTT, 1990

Table 2.5.16 Pond Area by Districts (1990-1999)

	Unit:ha									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>NTB</b>										
Lombok Barat	415	415	470	470	470	470	470	470	470	3,857
Lombok Tengah	232	215	215	215	206	206	206	190	206	190
Lombok Timur	458	458	458	458	458	373	373	373	458	458
Sumbawa	988	975	975	975	975	946	975	1,470	975	2,502
Dompu	1,134	1,134	1,215	1,215	1,215	1,175	1,175	1,441	1,215	1,326
Bima	1,293	1,346	1,532	1,532	1,535	1,575	1,737	1,737	1,535	1,882
Mataram										
Sub-total	4,520	4,543	4,865	4,865	4,859	4,745	4,936	5,681	4,859	10,215
<b>NTT</b>										
Sumba Barat	-	-	-	-	-	-	-	1	2	2
Sumba Timur	8	8	8	8	8	8	8	5	5	4
Manggarai	82	85	85	85	85	16	19	99	99	99
Ngada	56	66	66	66	66	36	40	38	43	50
Ende	-	-	-	-	-	-	-	-	-	-
Sikka	-	-	-	-	-	-	-	19	-	-
Flores Timur	-	-	-	-	-	-	-	-	-	-
Alor	-	-	1	1	1	1	1	3	3	3
Kupang	43	43	43	43	44	43	43	43	43	35
Timor Tengah Selatan	1	1	1	1	1	1	2	5	5	4
Timor Tengah Utara	40	40	40	40	40	68	68	36	36	36
Belu	105	105	105	105	105	106	105	110	110	110
Sub-total	335	348	350	350	350	279	286	357	344	341
Grand Total	4,855	4,892	5,215	5,215	5,209	5,024	5,222	6,038	5,203	10,556

Note: Kabupaten Lembata is not included in "Flores Timur", and Kota Kupang is not included in "Kupang".

Source: Buku Tahunan Statistik Perikanan NTB, and NTT, 1990

Table 2.5.17 Unit Production Volume of Pond by Districts (1990-1999)

	Unit:kg/ha									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>NTB</b>										
Lombok Barat	1,443	2,586	1,853	2,304	1,075	981	1,029	1,055	1,120	121
Lombok Tengah	339	371	301	307	329	348	368	421	405	1,453
Lombok Timur	811	946	1,198	689	1,293	546	348	483	240	1,012
Sumbawa	483	590	553	791	275	706	1,202	905	1,251	443
Dompu	919	873	624	513	903	700	605	710	958	424
Bima	1,858	1,912	2,005	2,271	2,282	2,528	2,332	2,139	2,644	2,166
Mataram										
Average in NTB	1,100	1,260	1,203	1,303	1,242	1,308	1,341	1,201	1,474	681
<b>NTT</b>										
Sumba Barat	-	-	-	-	-	-	-	-	-	667
Sumba Timur	225	1,000	1,125	1,875	2,000	750	575	346	2,250	343
Manggarai	24	12	35	47	47	253	1,064	20	76	91
Ngada	338	181	227	211	1,727	193	363	524	212	N.A.
Ende	-	-	-	-	-	-	-	-	-	-
Sikka	-	-	-	-	-	-	-	-	-	-
Flores Timur	-	-	-	-	-	-	-	-	-	-
Alor	-	-	500	500	-	1,500	1,125	-	875	1,031
Kupang	680	1,238	1,328	1,848	1,885	383	520	588	3,381	3,526
Timor Tengah Selatan	-	100	300	400	400	-	1,778	-	-	-
Timor Tengah Utara	400	598	550	713	730	399	330	772	732	777
Belu	67	50	95	95	109	435	279	244	182	235
Average in NTT	223	296	336	436	1,282	387	411	331	642	560
Average (NTT & NTB)	1,039	1,191	1,145	1,245	1,244	1,257	1,291	1,150	1,419	677

Note: Kabupaten Lembata is not included in "Flores Timur", and Kota Kupang is not included in "Kupang".

Source: Buku Tahunan Statistik Perikanan NTB, and NTT, 1990



Table 2.5.18 Seaweed Production by Districts (1990-1999)

	Unit: ton									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>NTB</b>										
Lombok Barat	1,007			984			191	2,053	618	
Lombok Tengah	9,650	7,299	7,724	3,592	3,545	4,591	5,481	5,992	7,705	7,890
Lombok Timur	11,791	3,750	4,125	9,031	13,736	6,391	7,846	8,331	4,958	780
Sumbawa	808	300	330	859		743	2,581	6,616	10,851	11,282
Dompu									995	1,100
Bima	609									
Mataram										
Sub-total	23,865	11,349	12,179	14,466	17,281	11,724	16,099	22,992	25,126	21,052
<b>NTT</b>										
Sumba Barat	-	-	-	-	-	-	-	-	-	-
Sumba Timur	-	-	1,482	1,463	1,499	1,816	875	-	-	-
Manggarai	-	-	7	13	14	32	24	755	-	-
Ngada	-	-	-	-	-	-	26	-	-	-
Ende	-	-	-	-	-	-	-	-	-	-
Sikka	-	-	-	109	112	-	-	-	-	-
Flores Timur	-	-	81	13	13	75	53	50	-	-
Alor	-	-	2	13	15	-	-	570	-	-
Kupang	-	-	252	351	357	27	150	125	-	-
Timor Tengah Selatan	-	-	-	-	-	-	-	-	-	-
Timor Tengah Utara	-	-	-	-	-	-	-	-	-	-
Belu	-	-	-	-	-	-	-	-	-	-
Sub-total	0	0	1,824	1,961	2,010	1,950	1,127	1,500	0	0
Grand Total	23,865	11,349	14,004	16,426	19,290	13,674	17,226	24,492	25,126	21,052

Note: 1) Kabupaten Lembata is not included in "Flores Timur", and Kota Kupang is not included in "Kupang".

2) Production data of NTT in 1996 includes sea cucumber.

Source: Buku Tahunan Statistik Perikanan NTB, and NTT, 1990

Table 2.5.19 Production of Pearl Oyster by Districts (1990-1999)

	Unit: ton									
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>NTB</b>										
Lombok Barat	2.9	3.1	3.4	3.9	4.1	3.3	3.4	3.6	3.7	0.145
Lombok Tengah									0.4	0.009
Lombok Timur	3.3	2.9	3.2	4.6	4.7	3.7	4.1	6.2	4.1	0.065
Sumbawa	6.8	6.8	7.3	9.7	9.9	7.9	8.4	8.9	7.8	0.088
Dompu										0.069
Bima	4.1	5.9	6.3	7.8	8.1	6.5	6.8	7.1	7.2	0.162
Mataram										
Total	17.1	18.7	20.2	26.0	26.8	21.4	22.7	25.8	23.2	0.538

Note: 1) No data on pearl production in NTT.

2) Figure for 1999 shows only the weight of the pearl only.

Source: Buku Tahunan Statistik Perikanan NTB 1990-99

Table 2.5.20 Production Volume of Brackish Water Pond by District and Species (1999) (1/2)

	Unit: ton				Sub-total
	Milk Fish	Mulletts	Tillapia	Others	
<b>NTB</b>					
Lombok Barat	163.2	41.9	28.0	32.7	265.8
Lombok Tengah	23.9		111.1	130.3	265.3
Lombok Timur	11.2		52.5		63.7
Sumbawa	347.5	28.0	96.3	85.3	557.1
Dompu	121.5	7.8	78.1	24.4	231.8
Bima	4,007.9	17.6	16.7	7.8	4,050.0
Mataram					
Sub-total	4,675.2	95.3	382.7	280.5	5,433.7
<b>NTT</b>					
Sumba Barat	0.8	-	-	-	0.8
Sumba Timur	1.0	0.2	-	-	1.2
Manggarai	8.2	0.5	-	0.2	8.9
Ngada	N.A.	16.5	-	5.4	N.A.
Ende	-	-	-	-	0.0
Sikka	-	-	-	-	0.0
Flores Timur	-	-	-	-	0.0
Alor	3.1	0.2	-	-	3.3
Kupang	52.6	15.3	-	-	67.9
Timor Tengah Selatan	-	-	-	-	0.0
Timor Tengah Utara	20.8	4.5	-	-	25.3
Belu	15.6	2.7	-	-	18.3
Sub-total	102.1	39.9	0.0	5.6	147.6
<b>Grand Total</b>	<b>4,777.3</b>	<b>135.2</b>	<b>382.7</b>	<b>286.1</b>	<b>5,581.3</b>

Note: Kabupaten Lembata is not included in "Flores Timur", and Kota Kupang is not included in "Kupang".

Source: Buku Tahunan Statistik Perikanan NTB, and NTT, 1990

Table 2.5.20 Production Volume of Brackish Water Pond by District and Species (1999) (2/2)

	Unit: ton					Total
	Tiger Prawn	Banana Prawn	Meta-penaeid	Others	Sub-total	
<b>NTB</b>						
Lombok Barat	69.9	51.2	79.1		200.2	466.0
Lombok Tengah	2.7	2.7	5.3		10.7	276.0
Lombok Timur	400.0				400.0	463.7
Sumbawa	551.9				551.9	1,109.0
Dompu	330.2				330.2	562.0
Bima	20.5	6.8			27.3	4,077.3
Mataram						
Sub-total	1,375.2	60.7	84.4	0.0	1,520.3	6,954.0
<b>NTT</b>						
Sumba Barat	-	-	-	-	0.0	0.8
Sumba Timur	-	-	-	-	0.0	1.2
Manggarai	-	-	-	-	0.0	8.9
Ngada	N.A.	-	-	-	0.0	N.A.
Ende	-	-	-	-	0.0	0.0
Sikka	-	-	-	-	0.0	0.0
Flores Timur	-	-	-	-	0.0	0.0
Alor	-	-	-	-	0.0	3.3
Kupang	55.5	-	-	-	55.5	123.4
Timor Tengah Selatan	-	-	-	-	0.0	0.0
Timor Tengah Utara	2.3	-	-	-	2.3	27.6
Belu	7.5	-	-	-	7.5	25.8
Sub-total	65.3	0.0	0.0	0.0	65.3	191.0
<b>Grand Total</b>	<b>1,440.5</b>	<b>60.7</b>	<b>84.4</b>	<b>0.0</b>	<b>1,585.6</b>	<b>7,145.0</b>

Note: Kabupaten Lembata is not included in "Flores Timur", and Kota Kupang is not included in "Kupang".

Source: Buku Tahunan Statistik Perikanan NTB, and NTT, 1990

Table 2.5.21 Number of Fish Farmer's Households by Districts and Pond Size

	Unit: Households				Total
	< 2ha	2 to 5 ha	5 to 10 ha	> 10 ha	
<b>NTB</b>					
Lombok Barat	225	20	5	-	250
Lombok Tengah	165	-	2	3	170
Lombok Timur	120	33	10	5	168
Sumbawa	31	205	200	239	675
Dompu	500	7	1	-	508
Bima	2,577	79	3	-	2,659
Mataram	-	-	-	-	-
<b>Sub-total</b>	<b>3,618</b>	<b>344</b>	<b>221</b>	<b>247</b>	<b>4,430</b>
<b>NTT</b>					
Sumba Barat	2	-	-	-	2
Sumba Timur	2	-	-	-	2
Manggarai	102	-	-	-	102
Ngada	50	5	-	-	55
Ende	-	-	-	-	0
Sikka	-	-	-	-	0
Flores Timur	-	-	-	-	0
Alor	2	-	-	-	2
Kupang	22	-	-	-	22
Timor Tengah Selatan	-	-	-	-	0
Timor Tengah Utara	42	-	-	-	42
Belu	70	-	-	-	70
<b>Sub-total</b>	<b>292</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>297</b>
<b>Grand Total</b>	<b>3,910</b>	<b>349</b>	<b>221</b>	<b>247</b>	<b>4,727</b>

Note: Kabupaten Lembata is not included in "Flores Timur", and Kota Kupang is not included in "Kupang".

Source: Buku Tahunan Statistik Perikanan NTB, and NTT, 1990

Table 2.5.22 Number of Fish Farmer's Households by Districts and Species

	Unit: Households			Total
	Milk fish	Shrimp	Milk fish & Shrimp	
<b>NTB</b>				
Lombok Barat	-	-	350	350
Lombok Tengah	-	-	-	0
Lombok Timur	-	-	-	0
Sumbawa	397	243	35	675
Dompu	97	130	325	552
Bima	2,192	542	15	2,749
Mataram	-	-	-	-
<b>Sub-total</b>	<b>2,686</b>	<b>915</b>	<b>725</b>	<b>4,326</b>
<b>NTT</b>				
Sumba Barat	2	-	-	2
Sumba Timur	2	-	-	2
Manggarai	102	-	-	102
Ngada	50	5	-	55
Ende	-	-	-	0
Sikka	-	-	-	0
Flores Timur	-	-	-	0
Alor	2	-	-	2
Kupang	22	-	-	22
Timor Tengah Selatan	-	-	-	0
Timor Tengah Utara	42	-	-	42
Belu	70	-	-	70
<b>Sub-total</b>	<b>292</b>	<b>5</b>	<b>0</b>	<b>297</b>
<b>Grand Total</b>	<b>2,978</b>	<b>920</b>	<b>725</b>	<b>4,623</b>

Note: Kabupaten Lembata is not included in "Flores Timur", and Kota Kupang is not included in "Kupang".

Source: Buku Tahunan Statistik Perikanan NTB, and NTT, 1990

Table 2.5.23 Quarterly Production Volume of pond Culture by Districts

					Unit: ton
	I	II	III	IV	Total
<b>NTB</b>					
Lombok Barat	69.9	163.1	139.7	93.3	466.0
Lombok Tengah	41.7	96.5	82.6	55.2	276.0
Lombok Timur	69.6	162.1	139.4	92.6	463.7
Sumbawa	166.4	388.1	332.7	221.8	1,109.0
Dompu	85.3	199.1	170.6	113.8	568.8
Bima	610.6	1,424.7	1,221.2	814.0	4,070.5
Mataram					
Sub-total	1,043.5	2,433.6	2,086.2	1,390.7	6,954.0
<b>NTT</b>					
Sumba Barat	0.5	-	-	0.3	0.8
Sumba Timur	0.8	0.3	-	0.1	1.2
Manggarai	3.2	1.8	0.6	3.3	8.9
Ngada	140.5	132.8	135.0	185.4	593.7
Ende	-	-	-	-	0.0
Sikka	-	-	-	-	0.0
Flores Timur	-	-	-	-	0.0
Alor	1.6	1.2	-	0.5	3.3
Kupang	45.2	28.6	16.8	32.8	123.4
Timor Tengah Selatan	-	-	-	-	0.0
Timor Tengah Utara	8.3	5.5	2.6	11.2	27.6
Belu	7.6	4.8	1.3	12.1	25.8
Sub-total	207.7	175.0	156.3	245.7	784.7
<b>Grand Total</b>	<b>1,251.2</b>	<b>2,608.6</b>	<b>2,242.5</b>	<b>1,636.4</b>	<b>7,738.7</b>

Note: Kabupaten Lembata is not included in "Flores Timur", and Kota Kupang is not included in "Kupang".

Source: Buku Tahunan Statistik Perikanan NTB, and NTT, 1990

Table 2.5.24 Aquaculture Potential Area in NTB and NTT by Districts

	Unit:ha			
	Brackish water pond	Mariculture	Seaweed	Floating cage
<b>NTB</b>				
Lombok Barat	875	-	125	55
Lombok Tengah	550	-	355	85
Lombok Timur	3,500	-	2,000	210
Sumbawa	10,375	-	15,500	1,550
Dompu	4,700	-	1,295	113
Bima	5,245	-	1,825	132
Mataram	-	-	-	-
Sub-total	25,245		21,100	2,145
<b>NTT</b>				
Sumba Barat	37	-	-	-
Sumba Timur	-	-	-	-
Manggarai	2,600	-	8,200	-
Ngada	1,190	3,444	-	-
Ende	1,090	726	-	-
Sikka	-	-	-	-
Flores Timur	-	-	-	-
Lembata	-	-	615	115
Alor	-	-	-	-
Sub-total	4,917	4,170	8,815	115
<b>Grand Total</b>	<b>30,162</b>	<b>4,170</b>	<b>29,915</b>	<b>2,260</b>

Source: NTB; Program Pembangunan Daerah Sector Perikanan NTT; Result of Questionnaire survey

Table 2.6.1 Existing Fish Marketing Activities at Fish Landings Sites in Study Area

Kabupaten	Kecamatan	Kel/Desa	Desun	Main Fishing Gear	Major Race of Fishermen	Main Fish Landing Site	Major Markets Destination	Main Fish Dealing Channel	No. of Collectors/Agents		No. of Fish Buyers /Day			Fish Landing Volume
									Demersals	Pelagics	Male	Female		
												village w.	outsiders	
Sumbawa	Taliwang	Lab.Lalar		HL	Bojo/Sumbawa	Lab.Lalar	Taliwang	A, C	FF-1	-	-	20 - 30		587
	Alas	Lab.Mapin		BG/HL	Bugis/Bajo/Sumbawa	Lab.Mapin	Mapin, Alas	A, C	FF-1	-	-	20 - 30		149
	Alas	P. Bungin		PS/HL	Bajo/Sasak	Lab.Alas	Alas, Denpasar	A, C	LF-2, FF-3	-	-	20 - 30		427
	Alas	Lab. Alas		BG	Bajo	Lab. Alas	Alas	A	-	-	-	50 - 60		1,845
	Utan/Rheec	Lab. Bajo		GN/HL/PY	Bajo		Utan	A	-	-	-	50 - 60		325
Sumbawa	Lab. Sumbawa			HL	Bugis/Bajo	4 sites	S. Besar, Denpasar	A, C	LF-3, FF-8, SC-1	-	-	20 - 30		975
	Plampang	Santong		BG/HL	Bugis/Bajo/Sasak/Sumbawa	Santong	Plampang, S. Besar	B-4, C	FF-2	-	10 - 20	50 - 60		8,048
	Kempo	Soro		BG/PS/GN/HL	Dompu/Bajo	Soro	Dompu	B-4, C	FF-4	80 (by boat)	-	20 - 30	50 - 60	2,599
Dompu	Paju	Jambu	Soroadu	PS/GN/HL	Dompu/Java	Soroadu	Dompu	A	-	-	-	5 - 10		374
	H'uu	Rasabou	Nanganae	PY/TN	Bajo/Bima/Dompu/Java	Nanganae	Dompu	C	FS-8	-	-	-		1,830
	H'uu	H'uu	Fini	HL/PS	Dompu/Java	H'uu	Dompu	A	-	-	-	20 - 30		
Bima	Bima	Tanjung	Sumbawa	HL/GN	Bima	Tanjung	Bima (2 markets)	A	FF-3	-	-	20 - 30		509
	Rasanae	Kolo		BG/HL	Bima	Tg. Bima	Bima (2 markets)	A	-	-	-	20 - 30		
	Sape	Bugis	Sape	BG/HL/BL	Bugis/Bima/Bajo	Sape	Bima, Sape, Wawu, Denpasar	A, C	FF-18	4	-	50 - 60		11,799
Manggarai	Rangle	Waworada	Rompo	BG/PS/BL/HL	Bima/Bugis	Rompo	Bima, Renda, Ngali, Tente	A, B-4	FF-3	25 (by boat)	-	20 - 30	20 - 30	7,074
	Mborong			PS/GN/HL	Ende/Manggarai/Sumba	Mborong	Bajawa, Ruteng	A, B-1	-	-	-	-		830
	Reo	Robek	Mondo	GN/HL	Bugis/Bajo/Bima	Reo	Ruteng	A, B-1	-	-	5 - 10	10 - 20		1,038
Komodo	P. Mesa			BG/HL	Bajo	P. Mesa	Lab. Bjo	A, C	FF-2	-	-	-		
	Komodo	P. Seraya B.		HL/TR	Bajo	P. Seraya B.	Lab. Bajo	C	FF-1	-	-	-		
	Komodo	Lab. Bajo		BG/HL	Bajo		Lab. Bajo, Ruteng, Denpasar	A, B-1	FF-5	-	10 - 20	20 - 30		
Ngada	Aisesa	Nangadero	Marapakot	PS/BG/HL	Bajo/Buton/Selayar/Ngada	Marapakot	Ende, Bajawa	A, B-1	LF-1	-	10 - 20	20 - 30		700
	Riung	Nangamese	Riung	Mixed	Bugis/Bajo	Riung	Bajawa	A	-	-	-	20 - 30		853
	Aimere	Aimere T.		PS/HL/GN	Bajawa/Manggarai/Java	Aimere	Bajawa, Ruteng	A, B-2	-	-	-	10 - 20		464
Ende	Ende	Mbongawani		PY/GN/BL	Ende	Mbongawani	Ende (3 markets)	B-3	-	20	80 - 150	-		2,112
	P. Ende			HL/GN	Ende	Mbongawani	Ende (3 markets)	B-3	-	-	-	-		2,039
Sikka	Maumere	Maumere	Kalimati	PS/PY/HL/PL	Bugis/Bajo/Sikka	Kalimati	Maumere, Ende, Interior villages	B-2, C	LF-1	1 (KCBS)	30 - 50	30 - 50		
	Alok	Wuring	Wuring	FS/LM	Bugis/Bajo	Kalimati	Maumere (2 markets)	B-2	-	-	-	-		5,098
	Alok	Wuring	Nangafure	HL	Bugis/Bajo	Nangafure	Maumere (2 markets)	A	-	-	-	10 - 20		
	Talibura	P. Pamana		PL	Buton	KCBS	Jakarta	C	-	1 (KCBS)	-	-		
Talibura	P. Besar			HL/GN	Bugis/Bajo/Sikka	P. Besar	Maumere, Gelitung	C	-	-	-	-		496
	Talibura	Gelitung		HL/GN	Bugis/Bajo		Gelitung	B-1	-	-	15 - 30	-		
	Paga	Paga		PS/HL/GN	Lio (Ende)	Paga	Interior villages	B-1	-	-	50 - 60	-		332
Flores Timur	Adonara T.	Sagu		HL/TR	Bajo	Sagu	Waiwerang	A, C	-	1 (Mitramas)	-	10 - 20		2,331
	Adonara T.	Lamahara		BG/PS	Bajo/Lamaholot	Lamahara	Waiwerang, Lantuka	A	-	-	-	50 - 60	30 - 50	
Lembata	Larantuka	16 villages		BG/GN/PL	Bajo (5)/Lamaholot(11)	16 sites	Larantuka, Maumere, Ende	A, B-2, C	-	2 (Mitra+Okishin)	-	80 - 100		2,886
	Nubatukan	Lewoleba		BG/HL	Lamaholot		Lewoleba	A	-	-	-	20 - 30		243
	Nubatukan	Lamalera		HR/HL/GN	Lamaholot	Lamalera	Interior villages	A	-	-	-	50 - 60		
Omesu	Balauring			TR/HL/GN	Bajo/Buton/Lamaholot	Balauring	Lewoleba, Larantuka	A, C	-	1 (Okishin)	-	20 - 30		295

Remarks: (1) Fishing Gear: BG: Bagan, PS: Purse-seine, HL: Hand-line, BL: Bottom longline, GN: Gill-net, TR: Trolling, PY: Payang, TN: Tammel net, PL: Pole-and-line, HR: Harpoon (for whale)

(2) Fish Collectors/Agents: LF: Alive fish/lobster, FF: Fresh fish, FS: Fresh shrimp, SC: Dried sea cucumber

(3) Fish Dealing Channel

Type	Fish Transaction/Distribution Channel	Method of price determination	Buyers
A	Fishing Boat → (Owner's Wife) → Fishermen Wife → (Retailer in Market) → Consumer	Depends on owner's wife	at random
B-1	Fishing Boat → Fish Vendor → Consumer	Bargaining or auction	
B-2	Fishing Boat → Beach Trader → (Retailer in Market) → Consumer	Bargaining or auction	at random
B-3	Fishing Boat → Fish Agent → Beach Trader → (Retailer in Market) → Consumer	Price given by fish agent	fixed
B-4	Fishing Boat → Collecting Boat → Beach Trader → (Retailer in Market) → Consumer	Bargaining	at random
C	Fishing Boat → Fish Collector / Fishing Company → Inter-island/Export	Price given by fish collector	fixed

(4) Fishing seasons

Small pelagic	Tuna/skipjack	Squid	Teri	Shrimp
Apr.-Dec.	Sep.-Nov.	Oct.-Feb.	Sep.-Dec.	Jan.-May
	Mar.-May			

(5) Lean seasons

Periods	Areas or fishing types affected in particular
East monsoon: July-Aug.	Sawa Sea opening to east direction (Sumbawa)
West monsoon: Jan.-Feb.	Both Flores and Sawa Seas opening to west direction
5-7 days around full-moon	Bagan, Purse-seine, Pole & Line (limit of live bait)

**Table 2.6.2 Existing Fish Collectors and Fishing Firms in Study Area**

**(1) Fish Transported to Outside of the Region (Inter-Islands) by the Selected Collectors**

Kabupaten	Kecamatan	Kel/Desa	Name of Company	Type of Fish	Shipping Volume per time (kg/time)	No. of Shipping Times per yr (times)	Annual Dealing Volume (ton/yr)	Destination	Type of Packing	Means of Transport	Major Species	
Sumbawa	Sumbawa	S. Besar	PT. Ude Laut Lestari	Alive	300	120	36	Denpasar	Aerated tank	By Truck	Kerapu/Senu	
		Lab.Sumbawa	UD Hai Sembahasai	Alive	250	36	9	Denpasar	Insulated box w/o ice	By Air	Lobster	
		Lab.Sumbawa	INTI SAMUDRA	Fresh	300	250	75	Denpasar	Insulated box with ice	By Truck	Kerapu/Kakap/Senu/Krisi/Hamada	
	Alas	Tg. Alas	PT. Nini Rejeki	Alive	150	24	3.6	Denpasar	Aerated tank	By Truck	Kerapu/Senu	
				Alive	500 pcs.	100	50,000	Denpasar	Plastic bag w/air	By Truck	Ornamental fish (Ikan Hias)	
	Taliwang	Lab. Lalar	Individual collector	Fresh	150	250	37.5	Denpasar	Insulated box with ice	By Truck	Kerapu/Kakap	
Dompu	H'uu	Rasabau	Individual collector	Fresh	600	200	120	Surabaya (via.Dompu)	Insulated box with ice	By Truck	Banana shrimp (volume at head-or	
Bima	Sape	Sape	UD. Karya Tunggal	Fresh	1000	30	30	Denpasar	Insulated box with ice	By Truck	Kerapu/Kakap	
				Frozen	2500	8	20	Denpasar	Refrigerated truck	By Truck	Kerapu/Kakap	
				Dried	12500	4	50	Surabaya/Jakarta	Carton box	By Truck	Teri/Layang/Kembung/Selar/Cumi	
			Individual collector	Fresh	200	250	50	Denpasar (via.Bima)	Insulated box with ice	By Truck	Kerapu/Kakap	
	Rangle	Waworada	Individual collector	Fresh	100	50	5	Denpasar	Insulated box with ice	By Truck	Kerapu/Kakap	
Manggarai	Komodo	Lab. Bajo	Individual collector (1)	Fresh	500	50	25	Denpasar	Insulated box with ice	By Truck	Kerapu/Kakap	
				Individual collector (2)	Fresh	400	50	20	Denpasar	Insulated box w/o ice	By Air	Kerapu/Kakap
				Fresh	1000	50	50	Denpasar	Insulated box with ice	By Truck	Kerapu/Kakap	
		P.Mesa	Individual collector (3)	Fresh	300	100	30	Denpasar (via. Sape)	Insulated box with ice	By Truck	Kerapu/Kakap	
				Alive	50	50	2.5	Denpasar	Aerated tank	By Boat	Kerapu/Senu	
Ngada	Aisesa	Marapokot	Individual collector	Alive	50	10	0.5	Hong Kong	Aerated tank	By Boat	Kerapu/Senu	
Sikka	Maumere		Individual collector	Alive	500	12	6	Hong Kong	Aerated tank	By Boat	Kerapu/Senu	



Table 2.6.4 Fish Prices During the Field Survey (June-July 2001)

(1) Price of Local Fish (1/2)

District	Sub-District	Town Area/	Sub-Village	Price Level	Price of Fresh Fish by Species (Rp./kg)													
					Tuna	Merlin	Cakarang	Tongkol	Layang	Tembang	Selar	Kuve	Kwee	Kembung	Teri hitam	Lure	Teri Nasi	Julang
<b>(Sumbawa)</b>																		
Sumbawa	Plampang	Tl. Santong		Beach					4,000						4,500			
Sumbawa	S. Besar	Pasar Seketeng		Retail						5,000					10,000	10,000		
	Alas	Lab. Alas		Beach						4,000						4,000		
Dompu	Dompu		Pasar Umum	Retail		10,000		10,000	7,500		5,000			4,000	10,000			10,000
	Kempe	Soro		Beach				4,500										
	Paju	Jambu	Soroadu	Beach		5,000	2,500	2,500										
	Huu	H'uu	Fini	Retail				5,000						4,000				
Bima	Bima	Pasar Baru		Retail							10,000						20,000	10,000
	Rangle	Wawitrada		Beach						1,000						6,000		
	Sape	Bugis		Beach	7,000				5,000				6,000	3,750				
<b>(Flores)</b>																		
Manggarai	Mborong			Retail						2,000					4,000			
	Ruteng			Retail						4,000								4,000
	Reo	Robek	Mondo	Beach														2,000
	Lembor	Nangalili	Jambategi	Beach					2,500		2,000							
	Komodo	P. Meta		Beach														
Ngada	Aiksa	Nangadero	Marapokot	Beach	Small pelagics Rp.1,500-3,000, Demersal Rp.5,000-7,000													
	Riung	Nangamete		Beach	Small pelagics: Rp.2,000-4,000													
	Aimere	Aimere T.		Beach			3,500	3,500		2,500					5,000			2,500
Ende	Ende	Mbongawuni		Retail	8,000		8,000	5,500	5,000		4,500							
	Ende	Potulando		Retail	10,000										5,000			2,000
Sikka	Mausere	Kulimati		Retail	10,000		7,500		5,000							10,000		10,000
	Alok	Wuring	Nangafure	Beach	3,000													
	Tajibera	Gelirung		Retail							10,000				10,000			
	Paga			Beach			2,000	2,000			2,000							
Flores Timur	Laranuka	Pasar Umum		Retail			5,000	5,000				5,000			5,000	5,000		
		On road		Retail				5,000				5,000			5,000			5,000
	Adonara T.	Lamahara Jaya		Beach			3,000	3,000	2,500									
Lembata	Nubatukan	Lewoleba Utara		Retail				3,500	3,500		3,500				3,000			
	Omesuri	Bulauring		Beach				1,200	2,000		1,000	2,000						
<b>Reference:</b>																		
Banyuwangi	Pasar Banyuwangi			Retail		12,000			9,000	4,000								
Denpasar	Pasar Keremang			Retail		17,000					7,000	9,000						
	Pasar Kumbasari			Retail											10,000			



(1) Price of Local Fish (2/2)

District	Sub-District	Town Area/Village	Sub-Village	Price Level	Tenggiri	Kerapu	Kakap	Cumi	Mantis	Bandeng	Beranak	Pari	Undang putih	Price of Dried/Salted Fish by Species (Rp./kg)			Pindang Seleni			
														Teri hitam	Lure	Cumi	Kembung	Tongkol		
(Sumbawa)																				
Sumbawa	Piampang	Tl. Santong		Beach													12,000			
	Sumbawa	S. Besar	Pasar Seketeng	Retail		10,000				10,000					25,000			13,000		
	Alas	Lab. Alas		Beach																
Dompu	Dompu		Pasar Umum	Retail						12,000	20,000	2,500	10,000		25,000	35,000			10,000	12,000
	Kempe	Soro		Beach																
	Paju	Jambu	Soroadu	Beach			5,000													
	Huu	Huu	Fini	Retail																
Bima	Bima	Pasar Baru		Retail						10,000										
	Rangle	Wawonda		Beach																
	Sape	Bugis		Beach				5,000												
(Flores)																				
Manggarai	Mborong			Retail			5,000													
	Ruteng			Retail			20,000													
	Reo	Robek	Mondo	Beach			5,000													
	Lembor	Nangalili	Jambataga	Beach																
	Komodo	P. Meta		Beach				7,500												
Ngada	Aisesa	Nangadero	Marapokot	Beach																
	Riung	Nangamese		Beach																
	Aimere	Aimere T.		Beach																
Ende	Ende	Mbongawani		Retail		15,000														
	Ende	Potulando		Retail																
Sikka	Maumere	Kalimati		Retail	17,500	15,000	15,000	10,000	30,000											
	Alok	Wuring	Nongafuro	Beach																
	Talibura	Gelitung		Retail																
	Paga			Beach																
Flores Timur	Larantuka	Pasar Umum		Retail																
		On road		Retail																
	Adonara T.	Lamahara Jaya		Beach				6,000												
Lembata	Nubatukan	Lewoleba Utara		Retail		10,000												5,000		
	Onesuri	Balauring		Beach		4,000														
Reference:																				
Banyuwangi		Pasar Banyuwangi		Retail				10,000						14,000				10,000		
Dempasar		Pasar Keringsing		Retail	18,000		13,000	10,000						10,000	18,000				10,000	
		Pasar Kumbasari		Retail	20,000	17,000	25,000	12,000												

(2) Price of Fish for Export

A. EX-GODOWN PRICE OF FRESH FISH AT SAPE

Quality	Fresh fish (to Denpasar via. Bima)				Dried fish (to Jakarta/Surabaya)			
	apu / Senu halus	Kakap merah	Tenggiri	Hamada	Layang	Lure	Teri Nasi	
	250 - 500g	500g up	upto 1 kg	1 kg up	upto 5 kg	5 kg up	1 kg up	
for Export	25,000	31,000		14,000		15,000	15,000	5,000
for Local			6,000		8,000			

Remarks: 1) Transportation cost of dried fish from Sape to Jakarta : Rp.500/kg  
 2) Buying price from fishermen is about 10% lower than the above price.  
 3) Ice is supplied by the fish collector in Bima at free of charge.

B. SELLING PRICE OF FRESH SHRIMP TO DOMPU COLLECTOR

Species	Type	Rp/kg	Pcs/kg
Banana	head-less	50,000	30-120 pcs
Tiger	head-on	95,000	10-30 pcs

Remarks: 1) Buying price from fishermen at Nanganac is about 20% lower than the above prices.  
 2) Beheading of banana shrimp is done by fishermen's wife at the collector's processing shed at free of charge.  
 (Labour cost for beheading if asked somebody else: Rp.500/kg shrimp)

C. BUYING PRICE OF FRESH FISH BY LOCAL COLLECTORS AT SUMBAWABESAR

Kerapu	Size Classification			
	Senu	Hamada	Kakap	All kinds
Export	Export	Export	Export	Local
1 - 3 kg	0.4 - 1.2 kg	0.3 - 2 kg	0.3 - 1 kg	0.4 - 1.5 kg
3 - 5 kg	1.2 kg up	2 kg up	1 - 2.5 kg	
5 - 7 kg			2.5 kg up	
7 kg up				

2. Price of fresh fish for Export

Species	Krisi	Kerapu	Senu	Kakap merah	Hamada
Size			0.4 - 1.2 kg	1.2 kg up	0.3 - 2 kg
Buying Price	27,000	33,000	42,000	16,000	27,000
Price in Denpasar	40,000	49,000	46,000	37,000	32,000

Remarks: 1) Export market prices are high in July 2001 (30% down after escalation of exchange rate of Rp. in August 2001).  
 2) Transportation cost from Sumbawa Besar to Denpasar: Rp5,500/box (fish 60kg). 12 - 13 hours by bus (21:00 - 09:00 everyday)  
 3) In case of the chartered truck: Rp. 1 million to Denpasar.

D. BUYING PRICE OF SKIPIACK BY FISHING COMPANY IN LARANTUKA

Skipjack	Tuna	
	Size	Rp/kg
2.7 kg up	upto 2.2 kg	2,300
1.2 - 2.7 kg		1,900
upto 1.2 kg		1,200

E. BUYING PRICE OF ALIVE FISH FROM FISHERMEN

Location	Species	Size	Rp/kg
Marapekor	Kerapu		50,000
S. Besar	Senu		90,000
	Kerapu tikus		150,000
	Kerapu tiger		30,000
Denpasar	Kerapu tikus		300,000
	Kerapu tiger	0.5 - 1.4kg	100,000
		4 kg up	50,000

Remarks: Kerapu tikus/senu: fixed price by piece (1.36kg up)  
 Kerapu tiger: price by kg (up to 3kg), price by piece (3kg up)

2. Size Classification

Size
0.3 - 0.45 kg
0.45 - 1.0kg
1.0 kg up

3. Species

Local Name	Character	Scientific Name
Napoleon		Cheilinus undulatus
Kerapu tikus		Chromalopsis altivetes
Kerapu tiger	small spot	Epinephelus tauvina
	large spot	Epinephelus Meria
Kerapu hitam		

F. BUYING PRICE OF ALIVE FISH AT DENPASAR EXPORTER

Species	Price (Rp/kg)	Size
Lobster (Bamboe)	200,000	500g/pc up
Kerapu Tikus	300,000 - 350,000	
Kerapu Tiger	50,000 - 60,000	4 kg/pc up
Kerapu Tiger	100,000	0.5-1.4kg/pc

Remarks: Alive fish collected from Flores, Makassar and Manado  
 In case of cultured fish price is about 15% lower than natural one.  
 Exported to Hong Kong (Transportation cost: US\$1.60/kg by air DPS - H.K.)

G. WHOLESALE PRICE OF DRIED FISH AT TRADERS IN BANYUWANGI

Species	Class	Price (Rp/kg)	Remarks
Ikan Teri	A	10,000	12,000
	B	9,000	
	C	8,000	
	D	3,250	for animal feed
Teri Nasi	A	15,000	
Layang	A	3,000	
	B	2,000	
	C	1,000	

Remarks: Classification by quality (Oily products are cheaper with brown color)  
 Durability: about 3 months (boiled/dried), 15 days (salted/dried)  
 Major collecting areas: Irian Jaya, Madura, Flores, Sulawesi Tenggara and Kalimantan

Table 2.6.5 Main Transport Methods and Required Time

(1) For Local Trade

District	Market To	Landing Site From	Approx. Distance(km)	Means of Transport	Required hours	Transportation Cost			Remarks
						per person	per box	Box size(kg/box)	
Sumbawa	Lab.Sumbawa	P. Medang		Boat	4.0	5,000	with box	15	
	S. Besar	Lab.Sumbawa		Dokar	0.5	3,000	with box	15	
	Utan	Lab. Bajo		Dokar	0.5	3,000	with box	15	
	Alas	P. Buningin		Boat	0.5	1,500	with box	15	
	Taliwang	Lab. Lalar		Bus	0.5	2,000	with box	15	
Dompu	Dompu	Soro/Kempo		Truck Bus	0.5	1,000	2,500	15	
		Soroadu		Bus	0.8	2,500	2,500	15	
		Nanganae		Bus	1.0	2,500	2,500	15	
		Huu		Bus	1.5	2,500	2,500	15	
Dima	Bima	Tanjung	0.4	Dokar	0.1	1,000	1,000	25	
		Tg. Bima	1	Dokar	0.1	1,000	1,000	25	
		Kolo		Boat/Bus	0.5	1,500	1,000	25	
		Sape		Bus	2.0	3,000	5,000	25	
		Waworada		Bus	2.0	4,000	5,000	25	
Manggarai	Ruteng	Aimere		Bemo	2.0	300,000	with box	25kg x 20	Chartered by 10 psns
		Lab. Bajo		Truck	4.0	250,000	with box	100kg x 11	Chartered by 5-6 psns
		Lab. Bajo		Bus	4.0	12,000	with box	25	
		Reo		Truck Bus	3.0	5,500	10,000	60	
		Lembor	Lab. Bajo		Truck	3.0	125,000	with box	100kg x 11
Ngada	Bajawa	Marapokot		Bemo	3.5	10,000	5,000	50	
		Riung		Bemo	2.5	10,000	5,000	50	
		Aimere		Bemo	1.0	150,000	with box	25kg x 20	Chartered by 10 psns
		Mbai	Riung		Bus	1.0	5,000	1,500	25
Ende	Ende	Marapokot		Bemo	4.0	100,000	with box	50kg x 10	Chartered by 10 psns
Sikka	Maumere	Wuring		Truck	0.3	3,000	1,000	25	For transport dried fish
		Paga		Bemo	1.2	25,000	with box	25	
Flores Timur	Waiwerang	Sagu		Bemo	1.0	3,000	with box	25	
		Lamahara	0.5	Bemo	0.1	1,000			
		Larantuka	Deran (Larantuka)		Bemo	0.3	1,500	with box	25
Lembata	Lewoleba	Lamahara		Bemo+Boat	1.5	60,000	1,000	25kg x 20	Chartered by 10 psns
		Balauring		Bus	3.0	6,500	13,500	50	
		Lamarela		Boat	4.0	10,000			
				Boat	6.0	12,500			

(2) For Inter-Island Trade

Means	From	To	Transport cost	Products
Sea	Larantuka	Jakarta	US\$100/ton	Frozen fish
Land	Sape	Jakarta	Rp.500/kg	Dried fish
Land	S. Besar	Denpasar	Rp.5,500/box (80kg)	Fresh fish
Air	Lab. Bajo	Denpasar	Rp.4,350/kg	Fresh fish

(3) For Export

Means	From	To	Transport Cost	Products
Sea (Tramper)	Larantuka	Japan	22 yen/kg	Frozen fish
Air	Denpasar	Hong Kong	US\$1.60/kg Cathy Pac.	Alive fish
Air	Denpasar	Taipei	US\$1.45/kg 500kg up	Fresh fish
Air	Denpasar	Taipei	US\$1.35/kg 1,000kg up	Fresh fish

(4) Price of Fish Containers

Type	Material	Size	Capacity	Price/pc.	Remarks
Cool Box	Styrofoam	30x50x30cm	45L	17,500	used in Kab. Sumbawa
	Styrofoam	30x90x30cm	80L	75,000	used by collectors in Lab. Bajo
	Styrofoam	40x25x25cm	25L	12,500	used by fish retailer at Banyuwangi
	Styrofoam	60x40x35cm	80L	18,000	used by exporter in Bali
	Styrofoam	120x35x25cm	100L	23,000	used by exporter in Bali
Fish container	P.P. (round)	50cm dia.	30L	45,000	At Sape
	Bamboo		80L	4,000	At Sape
	P.P. (rectangular)		60L	75,000	

(5) Price of Fuel (As of July 2001)

District	Sub-District	Gasoline	Diesel	Light Oil
Lembata	Balauring	2,500	1,500	
Flores Timur	Waiwerang		1,100	
	Sagu	2,000	1,500	1,000
Sikka	Larantuka		900	
			1,100	
	Maumere	1,500	900	500
Ngada	Wuring		1,100	
	Nangafure		1,500	
	Paga		1,250	
	Riung		1,200	
Manggarai	Aimere		900	
	Reo		1,050	
	Lab. Bajo		1,000	
Bima	P. Mesa		1,500	
	Bima		900	
	Kolo		1,250	600
	Sape		1,300	
Dompu	Waworada		1,500	750
	Kempo			
	Nanganae	2,500		
Sumbawa	Huu	2,000	1,500	
	Santong		1,250	700
	Lab. Bajo	2,000	1,250	
	Lab. Mapin	1,800		
	Lab. Lalar	2,000	900	

Pertamina prices for general use: gasoline Rp.1,250/L, diesel Rp.900/L  
 Pertamina prices for industrial use: diesel Rp.1,280/L

**Table 2.6.6 Existing Condition of Ice Supply in Study Area**

1) Ice for local marketing

District	Location	Type of Ice	Price (Rp/kg)	Capacity Per Day	Purpose & Ratio for Use of Ice
Lembata	Lewoleba	Plastic bag 0.5kg/pc	600-1,000	N/D	10% during selling at local market (plastic container)
	Balauring	Plastic bag 5 pcs/kg	1,000	N/D	10% for transport to Lewoleba (plastic container)
Flores Timur	Larantuka	Plastic bag 3 pcs/kg	600-1,000	N/D	10% during selling at local market (plastic container)
	Sagu (Adonara)	Plastic bag 3 pcs/kg	750	N/D	15% for transport to Waiwerang (plastic container)
	Waiwerang	Plastic bag 3 pcs/kg	750	2,000 kg	10% during selling at local market (plastic container)
Sikka	Maumere	Plastic bag 1 kg/pc	500	N/D	15% for keeping one night (cool box)
	Paga	Plastic bag 1 kg/pc	1,000	40 kg	10% for vending to interior villages (by motorcycle)
Ende	Ende	Plastic bag 3 pcs/kg	750	300 kg	
Ngada	Riung	Plastic bag 1.5kg/pc	660	400 kg	75% for transport to Bajawa (plastic container)
	Marapokot	Plastic bag 1.5kg/pc	660	800 kg	
	Aimere	Plastic bag 0.5kg/pc	1,000	80 kg	25% for transport to Bajawa (plastic container)
Manggarai	Ruteng	Plastic bag 0.5kg/pc	1,000	N/D	40% for keeping one night (plastic container)
	Reo	Plastic bag 0.5kg/pc	1,000	N/D	10% for transport to Ruteng (cool box)
	Labuhanbajo	Plastic bag 1.5kg/pc	330	N/D	25% for transport to Ruteng (plastic container) 50% for transport from P. Mesa to Lab. Bajo (collector)
Bima	Bima	Plastic bag 1.5kg/pc	330	N/D	50-60% for keeping one night (plastic container)
	Sape	Plastic bag 1.5kg/pc	330	500 kg	50% for keeping one night (plastic container)
	Waworada	Plastic bag 1.5kg/pc	330	400 kg	60% for transport to Bima (plastic container)
Dompu	Dompu	Plastic bag 1.5kg/pc	330	N/D	60% for keeping one night (plastic container)
	Soro/Kempo	Plastic bag 1.5kg/pc	330	250 kg	30% for transport to Dompu (plastic container)
	Rasabau	Plastic bag 1.5kg/pc	330	400 kg	75% for transport to Dompu (shrimp, cool box)
	Hu'u	Plastic bag 1.5kg/pc	330	225 kg	Both for fish marketing and fishing boats (45kg/trip/boat)
Sumbawa	Sumbawabesar	Plastic bag 2.5kg/3pc.	500	N/D	50% during selling of fish at market (plastic container)
		Block Ice 10kg/20kg	400/350	5,000kg	100% for transport from/to market (cool box, collector)
	Labuhanbajo	Plastic bag 1 kg/pc	330	300kg	
	Pulau Bungin	Plastic bag 0.5kg/pc	500	900kg	
	Lab. Mapin	Plastic bag 1 kg/pc	250	N/D	
Labuhanlalar	Plastic bag 1 kg/pc	500	N/D	50% for keeping one night (cool box)	

2) Ice for fishing boats

District	Location	Name of Supplier	Type of Ice	Price (Rp/kg)	Capacity Per Day	Purpose & Ratio for Use of Ice
Flores Timur	Larantuka	PT. Okishin Flores	Block Ice 25 kg	200-240	15,000 kg	For company's contracted fishing boats only.
Sikka	Maumere	PT. K.C.B.S.	Block Ice 15kg	N/D	18,000 kg	For company's own and contracted fishing boats only.
		PT. Osayarna	Block Ice 30kg	250	1,500 kg	For company's contracted fishing boats only.
Bima	Bima	PT. Buana Delta	Block Ice 25kg	300	7,500 kg	Mainly for fishing boats in Sape (Ice: 250 kg/trip/boat).
			Block Ice 5kg	300	1,000 kg	Mainly for fishing boats in Bima (Ice: 150 kg/trip/boat).
Dompu	Hu'u	Domestic freezers	P.bag 1.5kg/pc	330	225 kg	Both for local fishing boats and fish marketing
Sumbawa	S.Besar	PT. UPI	Block Ice 10kg/20kg	400/350	5,000kg	

Note:

- 1) Current retail price of ice outside of the Study Area are Rp.120 - 140/kg (25kg block) at Banyuwangi (East Java), Rp.300/kg (20kg block from Mataram) at Labuan. Lombok, and Rp.200/kg (30kg block) at Denpasar.
- 2) Ice for fish collectors are supplied from exporters in Denpasar.

**Table 2.6.7 Existing Main Fish Retail Markets in Study Area**

District	Sub-District	Town Area /Village	Name of Market	Opening Hours	Fish selling place	Origin of Retailers Male	No. of Retailers at Survey						Volume of fresh fish in the market (kg/day)				Annual dealing volume (ton/yr)	Daily dealing volume (ton/day)	Method of treatment if not sold (only when the fish price is high)	
							Fresh Fish			Dried Fish			Volume per retailer		Total	Max.				
							Male	Female	Total	Male	Female	Total	Male	Female						
<b>(Sumbawa)</b>																				
Sumbawa	Sumbawa	S. Besar	Pasar Seketeng	06:00-18:00	In/Out shed	S. Besar	0	50	50	100	0	10	10	0	50	2,500	5,000	1,125	3.1	Kept in cool box with ice (50%) inside the market.
Dompu	Dompu	Dompu	Pasar Dompu	06:00-18:00	In/Out shed	Kempe,H'uu	0	100	100	200	0	10	10	0	30	3,000	6,000	1,350	3.8	Kept in fish container with ice (60%) and a little salt.
Bima	Bima	Bima	Pasar Baru	06:00-12:00	In/Out shed	Bima,Sape,Wawo	0	100	100	150	0	10	10	0	50	5,000	7,500	2,025	5.6	Kept in fish container with ice (50%) and a little salt.
			Pasar Sore	16:00-20:00																
<b>(Flores)</b>																				
Manggarai	Ruteng		Pasar Umum	06:00-18:00	In shed	Lab,Bejo, Reo, Ruteng	10	10	20	40	70	0	70	100	25	1,250	2,500	563	1.6	Kept in fish container with ice (40%) and a little salt.
Njada	Bajawa		Pasar Umum	16:00-20:00	In shed	Bajawa	0	50	50	100	20	0	20	0	25	1,250	2,500	563	1.6	Brought back to village for dried fish.
Ende	Ende	Mbongawani	Pasar Mbongawani	06:00-12:00	Open air	Ende	80	0	80	200	0	0	0	100	0	8,000	20,000	3,990	11.0	Kept in cool box with ice.
	Ende	Potulando	Pasar Potulando	16:00-20:00	In shed	Ende	25	0	25	50	0	0	0	100	0	2,500	5,000	1,125	3.1	Kept in cool box with ice inside the market.
	Ende	Wolowona	Pasar Wolowona	06:00-18:00		Ende														
Sikka	Maumere	Kalimati	Pasar Kalimati	06:00-09:00	Open air	Maumere, Nahgafure	30	30	60	150	0	0	0	100	50	4,500	11,250	2,228	6.2	Kept in fish container with ice (15%) or salt.
	Maumere		Pasar Baru	09:00-18:00	In shed	Maumere	0	25	25	50				0	0	625	1,250	281	0.8	Brought back to village for dried fish.
	Talibura	Gelitung	Pasar Gelitung	06:00-12:00	On road	Gelitung	15	0	15	30	10	0	10	100	0	1,500	3,000	675	1.9	Kept in fish container with ice.
Flores Timur	Larantuka		Pasar Umum	06:00-18:00	Passage	Larantuka	0	50	50	100	0	10	10	0	50	2,500	5,000	1,125	3.1	Brought back to village for dried fish.
				06:00-18:00	On road	Adonara, Solar	0	5	5	20	0	0	0	0	70	350	1,400	221	0.6	Brought back to village for dried fish.
<b>Reference:</b>																				
Banyuwangi (East Java)	Banyuwangi		Pasar Banyuwangi	06:00-18:00	In shed	Muncar	0	30	30	50	0	10	10	0	50	1,500	2,500	630	1.8	Kept in cool box with ice (100%) even during selling.
Denpasar (Bali)	Denpasar	Kerenang	Pasar Kerenang	09:00-18:00	In shed	Denpasar	0	5	5	10	0	1	1	0	30	150	300	68	0.2	No ice used during selling.
	Denpasar	Kumbasari	Pasar Kumbasari	09:00-24:00	In shed	Denpasar	0	30	30	60	0	0	0	100	3,000	6,000	1,350	3.8	Kept in cool box with ice (100%) even during selling.	
	Kuta	Kedonganan	Pasar Kedonganan	06:00-18:00	In shed	Denpasar	0	60	60	100	0	0	0	100	6,000	10,000	2,520	7.0	Kept in cool box with ice (100%) even during selling.	

**Table 2.7.1 Number of Fishing Ports by Type and Districts**

No.	Province	Type A	Type B	Type C	Type D	
					APBN	APBD
1	Aceh	-	-	1	6	33
2	Sumatra Utara	-	2	1	17	4
3	Sumatra Barat	-	1	1	5	17
4	Riau	-	-	1	5	9
5	Jambi	-	-	-	3	-
6	Sumatra Selatan	-	-	2	4	2
7	Bengkulu	-	-	-	4	-
8	Lampung	-	-	-	5	11
9	D.K.I. Jakarta	1	-	-	1	-
10	Jawa Barat	-	2	1	13	83
11	Jawa Tengah	-	2	1	15	71
12	D.I. Yogyakarta	-	-	-	1	1
13	Jawa Timur	-	1	2	21	37
14	Bali	-	-	-	5	8
15	Nusa Tenggara Barat	-	-	1	5	23
16	Nusa Tenggara Timur	-	-	1	5	-
17	Kalimantan Barat	-	-	2	3	33
18	Kalimantan Tengah	-	-	1	3	-
19	Kalimantan Selatan	-	-	1	4	-
20	Kalimantan Timur	-	-	1	6	3
21	Sulawesi Utara	-	-	1	5	13
22	Sulawesi Tengah	-	-	-	7	1
23	Sulawesi Selatan	-	-	-	11	32
24	Sulawesi Tenggara	1	-	-	6	3
25	Maluku	-	2	1	5	1
26	Irian Jaya	-	-	1	6	2
Total		2	10	20	171	387

Note: APBN; National Budget

APBD;; Provincial/District Budget

Source: Map of Fishing ports and Fish Landing Places, Indonesia 2000,

**Table 2.7.2 List of Existing Fishing Ports, PPIs and TPIs in NTB and NTT**

Province	District	Type-C	Type-D (PPI)		Other TPI
			APBN	APBD	
NTB	West Lombok	-	-	Ampenan Utara, Montong Buwuh Meninting, Meninting, Seron Jukung	Tanjung Karang, Gili Air, Cemara
	Central Lombok	-	-	Awang, Gerupuk	Kuta, Selong Belanak
	East Lombok	Labuan Lombok	Tanjung Luar	Batunampar, Labuhan Haji, Labuhan Pandan	
	Sumbawa	-	Labuan Mapin, Teluk Santong	Labuhan Lalar, Labhan Sumbawa, Pulau Bungin, Labuhan Ijuk	Labuhan Potontano, Labuhan Alas, Labuhan Bajo, Labuhan Jontal, Labuhan Sangoro, Labuhan Jambu,
	Dompu	-	Solo Kempo, Soroadu	Laasi, Nanganae, Waworoi, Mbawi, Labuhan Jambu,	Hu'u
	Bima	-	Sape	Waworada, Tanjung Bima, Pulau Bajo, Bonto Kape	-
NTT	West Sumba	-	-	-	-
	East Sumba	-	-	-	-
	Manggarai	-	Lasbuan Bajo		-
	Ngada	-		Nangadero, Aimere	-
	Ende	-	Ende (Paupanda)	-	-
	Sikka	-	Maumere (Nangahure)	-	-
	East Flores	-	Larantuka (Oka)	-	-
	Lembata	-		-	-
	Alor	-	Kalabahi	-	-
	Kupang	Kupang		-	-

Note: PPI Fish Landing Center  
TPI Fish Auction Place  
APBN National Budget  
APBD Province / District Budget  
NTT PENGEMBANGAN PRASARANA PERIKANAN PROPINSI NUSA TENGGARA TIMUR 2001-2004, DINAS PERIKANAN PROPINSI NUSA TENGGARA TIMUR, 2000

Source: Map of Fishing ports and Fish Landing Places, Indonesia 2000, (Dinas Perikanan NTB) and Interview Survey.

**Table 2.8.1 Religion by District**

	Unit: Persons		
	Islam	Christianity	Total
<b>NTB</b>			
Lombok Barat	50	0	50
Lombok Tengah	20	0	20
Lombok Timur	70	0	70
Sumbawa	130	0	130
Dompu	62	0	62
Bima	130	0	130
Sub-total	462	0	462
<b>NTT</b>			
Alor	47	13	60
FlorsTimur	41	39	80
Sikka	41	39	80
Ende	80	0	80
Ngada	33	17	50
Manggarai	70	0	70
SumbaBarat	20	10	30
SumbaTimur	60	0	60
Kupang	1	29	30
Sub-total	393	147	540
<b>Total</b>	<b>855</b>	<b>147</b>	<b>1002</b>

Source: Soci-economic survey (June and July 2001) by JICA Study Team

**Table 2.8.2 Main Water Supply**

	Unit: Persons							
	Waterworks			Well			Others	Total
	Private	Commor	Public	Private	Commor	Public		
<b>NTB</b>								
Lombok Barat	1	0	39	9	0	0	1	50
Lombok Tengah	3	0	2	9	5	0	1	20
Lombok Timur	0	0	24	23	19	4	0	70
Sumbawa	41	12	0	12	27	0	38	130
Dompu	0	0	3	15	30	0	14	62
Bima	20	17	21	6	12	2	52	130
Sub-total	65	29	89	74	93	6	106	462
<b>NTT</b>								
Alor	1	1	3	33	20	2	0	60
FlorsTimur	13	6	7	31	19	0	4	80
Sikka	11	6	8	33	18	0	4	80
Ende	1	0	58	2	13	0	6	80
Ngada	5	20	13	2	0	0	10	50
Manggarai	22	15	1	5	5	2	20	70
Sumba Barat	0	0	0	0	0	9	21	30
Sumba Timur	29	8	2	13	8	0	0	60
Kupang	1	0	15	13	1	0	0	30
Sub-total	83	56	107	132	84	13	65	540
<b>Total</b>	<b>148</b>	<b>85</b>	<b>196</b>	<b>206</b>	<b>177</b>	<b>19</b>	<b>171</b>	<b>1,002</b>

Source: Soci-economic survey (June and July 2001) by JICA Study Team



Table 2.8.3 Average Fishing Household Income, Per Capita Annual Income and Monthly Income

Unit: Rp

District	Fishing Village	Sample Number	Average Household Income (Rp/ Year)	Average No. of Household Member	Per. Capita Income /Year	Per Capita Income /Month
Lombok Barat	Ampenan U.	30	5,200,000	4.2	1,238,095	103,175
	T.Karang	20	3,720,000	4.9	759,184	63,265
Lombok Tengah	Kuta	20	3,000,000	4.4	681,818	56,818
Lombok Timur	T.Luar	20	2,520,000	4.5	560,000	46,667
	L.Lombok	50	2,832,000	4.3	658,605	54,884
Sumbawa	L.Lalar	25	9,480,000	4.0	2,370,000	197,500
	L.Mapin	30	10,000,000	5.0	2,000,000	166,667
	L.Sumbawa	50	4,584,000	4.0	1,146,000	95,500
	T.Santong	25	8,088,000	3.5	2,310,857	192,571
Dump	Kempo	32	9,412,500	5.0	1,882,500	156,875
	Nanganac	30	6,340,000	4.0	1,585,000	132,083
Bima	Bima	50	4,800,000	3.0	1,600,000	133,333
	Sape	50	7,128,000	5.0	1,425,600	118,800
	Wawarada	30	8,800,000	5.0	1,760,000	146,667
Sumba Barat	Waikelo	20	8,040,000	5.2	1,546,154	128,846
	Rua	10	6,060,000	5.0	1,212,000	101,000
Sumba Timur	Waingapu	40	4,245,000	5.1	832,353	69,363
	Praisalure	20	6,630,000	5.7	1,163,158	96,930
Mangarai	Nangalili	20	3,270,000	5.8	563,793	46,983
	L.Bajo	30	6,880,000	4.6	1,495,652	124,638
	Reo	20	4,320,000	4.4	981,818	81,818
Ngada	Marapokoto	30	4,300,000	4.6	934,763	77,899
	Aimere	20	1,500,000	5.1	294,118	24,510
Ende	P.Ende	30	2,080,000	5.2	400,000	33,333
	Ende	50	2,508,000	5.5	456,000	38,000
Sikka	Paga	30	5,520,000	3.5	1,577,143	131,429
	Maumere	50	5,705,882	4.3	1,311,628	109,302
Flores T.	Laratunka	50	5,772,000	3.6	1,603,333	133,611
Lembata	Lewoleba	30	5,940,000	3.8	1,563,158	130,263
Alor	Baranusa	20	5,520,000	4.0	1,380,000	115,000
	Kalabahi	40	4,770,000	3.6	1,325,000	110,417
Kupang	Roti	15	12,000,000	3.6	3,333,333	277,778
	Sabu	15	2,480,000	4.1	604,878	50,407
Annual Per Capita Income	-	-	-	-	1,289,573	-
National average of per capita annual income of small scale farmers with their land below 0.5 ha	-	-	-	-	1,631,410	-

Source: 1) Fishermen Income by district based on Household Survey in the Socio-Economic Survey of major fishing villages conducted by JICA Study Team during June – July 2001

2) National average annual per capita income of small-scale farmers with land below 0.5 ha was referred to Statistical Year Book in 1999

Table 2.8.4 Average Annual Operation Days and Gross Sales and Operation Cost by Fishing Villages

Unit: Rp/trip

Districts	Fishing Village	Average Annual Operation Days	Gross Sales (Rp / Operation)	Cost (Rp / Operation)	Net Income Rp / Operation)	Rate of Profit (%)
Lombok B.	Ampenan U.	278	77,539	58,834	18,705	24.1
	T.Karang	282	48,341	35,150	13,191	27.3
Lombok Te.	Kuta	291	28,534	18,225	10,309	36.1
Lombok Ti.	T.Luar	298	42,445	33,989	8,456	19.9
	T.Karang	280	45,264	35,150	10,114	22.3
Sumbawa	L.Lalar	269	332,297	297,048	35,249	10.6
	L.Mapin	309	129,414	97,052	32,362	25.0
	L.Sumbawa	229	115,628	95,611	20,017	17.3
	T.Santong	297	181,020	153,788	27,232	15.0
Dump	Kempo	276	306,996	272,895	34,101	11.1
	Nangananae*	200	439,637	407,937	31,700	7.2
Bima	Bima	320	237,986	222,986	15,000	6.3
	Sape	240	190,123	160,423	29,700	15.6
	Wawarada*	184	575,827	528,001	47,826	8.3
Sumba B.	Waikelo*	180	192,088	147,421	44,667	23.2
	Rua*	80	198,050	127,300	70,750	35.7
Sumba T.	Waingapu*	186	180,903	158,081	22,822	12.6
	Praisalure*	142	93,708	47,018	46,690	49.8
Manggarai	Nangalili*	181	84,866	66,800	18,066	21.3
	L.Bajo	224	307,144	276,400	30,714	10.0
	Reo	284	103,711	88,500	15,211	14.7
Ngada	Marapokoto	300	50,868	36,535	14,333	28.2
	Aimere*	260	36,506	30,737	5,769	15.8
Ende	P.End*	110	50,426	31,517	18,909	37.5
	Ende*	115	64,279	42,470	21,809	33.9
Sikka	Paga	295	111,787	93,075	18,712	16.7
	Maumere	301	147,702	128,745	18,957	12.8
Flores T.	Larantuka	301	158,276	137,605	19,176	12.1
Lembata	Leorebe	289	134,480	113,926	20,554	15.3
Alor	Baranusa	287	120,764	107,531	19,233	15.1
	Kalabahi	287	145,347	128,727	16,620	11.4
Kupang	Roti*	200	187,003	122,003	65,000	34.7
	Sab*	180	36,444	22,666	13,778	37.8

Remarks: \* Fishing villages facing the Indian Ocean located in the eastern part of Sumbawa Island.

Source: Household survey in the Socio-Economic Survey of major fishing villages conducted by JICA Study Team during June – July 2001

**Table 2.8.5 Income Gap Between Motorized and Non-Motorized Boats by Fishing Village**

District	Fishing Village	Annual average Household income Rp 1000/year)	Motorization Rate (%)	Annual Income (Rp1000/year)		Income Ratio
				Motorized	Non-motorized	
Lombok B.	Ampenan U.	5,200	60.0	6,579	3,738	1.76
	T.Karang	3,720	5.0	5,431	3,527	1.54
LombokTe.	Kuta	3,000	60.0	3,795	2,040	1.86
Lombok Ti.	T.Luar	2,520	85.0	2,541	1,258	2.02
	L.Lombok	2,832	26.0	3,138	1,814	1.73
Sumbawa	L.Lalar	9,482	52.0	9,923	5,359	1.85
	L.Mapin	10,000	70.0	10,286	6,233	1.65
	L.Sumbawa	4,584	54.0	5,800	3,157	1.84
	T.Santong	8,088	92.0	8,374	4,800	1.74
Dump	Kempo	9,412	71.9	10,667	5,829	1.83
	Nanganac	6,340	43.3	8,123	5,151	1.57
Bima	Bima	4,800	40.0	6,150	3,900	1.58
	Sape	7,128	72.0	7,667	4,646	1.65
	Wawarada	8,800	56.7	10,341	6,785	1.52
Sumba B.	Waikelo	8,040	20.0	8,900	4,734	1.88
	Rua	6,060	0.0	n.a.	6,060	—
Sumba T.	Waingapu	4,245	37.5	4,960	2,971	1.67
	Praisalure	6,630	100.0	6,630	n.a.	—
Manggarai	Nangalili	3,270	5.0	4,800	3,189	1.50
	L.Bajo	6,850	80.0	7,700	3,600	2.14
	Reo	4,320	15.0	7,200	3,812	1.89
Ngada	Marapokoto	4,300	20.0	4,824	2,539	1.90
	Aimere	1,500	10.0	3,600	1,267	2.84
Ende	P.Ende	2,080	0.0	n.a.	2,080	—
	Ende	2,508	6.0	4,800	2,362	2.03
Sikka	Paga	5,520	50.0	6,900	4,140	1.67
	Maumere	5,706	9.8	8,529	4,635	1.84
Flores T.	Larantuka	5,772	16.0	9,620	5,090	1.89
Lembata	Leworeba	5,940	43.3	7,611	4,817	1.58
Alor	Baranusa	5,520	40.0	6,984	3,817	1.83
	Kalabahi	4,770	12.5	7,123	3,983	1.79
Kupang	Roti	12,000	46.7	14,101	9,277	1.52
	Sabu	2,480	40.0	3,138	1,696	1.85

Source: Household survey in the Socio-Economic Survey of major fishing villages conducted by JICA Study Team during June – July 2001

Table 2.8.6 Some Examples of Financial Assistance for Women in NTB and NTT

Districts	Location	Source of Fund	Beneficiaries	Loan Amount	Repayment	Uses of loan	Remarks
Sumbawa	Sangtong	Arisan Group	32 members	20,000 Rp/month	No	For family	1 group in the dusun
Sumbawa	Kalibaru	Arisan Group	10 members	10,000/D every 10 Ds	No	For family	—
Sumbawa	Labuan Bajo (Utan Rhee)	P2K	5 members	500,000 Rp/group 100,000 Rp/member	12,000Rp/ people x 10M	Capital of making cakes	Now this system doesn't work
Sumbawa	Bungin (Alas)	Individual	—	20,000 Rp/Day	—	For family	—
Sumbawa	Labuan Lala (Tariwan)	Individual	—	N.A.	—	For family	—
Dompu	Soro (Kenpo)	Arisan Group	10 persons/group	2,500~20,000 Rp/Day	No	Boat operation and capital of boat	5 groups in the dusun
Dompu	Soro (Kenpo)	Individual	—	5,000 Rp/Day	—	Preparation for the life	—
Dompu	Soro (Kenpo)	PKK	Women's Group 10 persons/group	10,000~20,000 Rp/Month	N.A.	Capital for business	6 groups in the dusun
Bima	Tg. Bima	P4K	Women's Group	1st Stage 300,000 Rp 2nd Stage 500,000 Rp	1.5%/M×10Ms	Capital for fishing gear	In Reality Personal Loan
Bima	Kolo (Rasanai Barat)	PKK	Women's Group 24 member/group	250,000 Rp/member	1.5%/M×10Ms	Capital for fish purchase (cake making)	In Reality Personal Loan
Bima	Bugis (Sape)	Bank	Individual	N.A.	5 Years	Capital for fishing boat	—
Bima	Rompo (Waorada)	Arisan Group	40 membes	25,000 Rp/Week	No	Capital for business	—
Manggarai	P. Messah (Komodo)	Arisan Group	14~20 persons/group	25,000 Rp/Day	No	Capital of getting fish and making cake	Plural number of groups in the dusun
Manggarai	P. Seraya Besar (Komodo)	Arisan Group	20~50 persons/group	2,000 Rp/Week or 10,000 Rp/Month Different each	No	Capital of getting fish, making cake and school fee	Plural number of groups in the dusun
Manggarai	Gorontaro (Lab. Bajo)	Arisan Group	42 members	10,000 Rp/Week	No	Capital of getting boat, business	There is one groups in the dusun.
Ngada	Nangamese (Riung)	Government	Women's Group 5 members	5,000,000 Rp/Group 1,000,000 Rp/member	Total 5,784,825 RP(18Ms)	Capital of getting fish	Name of the group "Suasana Baru" In
Sikka	Wuring (Alok)	Government	Family Base	10,000,000 20,000,000RP per family	18Ms	Capital of fishery activity	2001.9 Plan
Sikka	Nangahale	Government	Cooking Salt Group 10 13 people/G	680,000 Rp/member	60,000RP /M/people×1Y	Capital of cooking salt	3 groups in the dusun
Flores Timur	Mokantarak (Larantunka)	Dasa Wisma Group	10 members	Sales of Ikat	No	N.A.	Group name "BUNGA MAWAR"
Lembata	Lewoleba	Arisan Group	22 members	5000 Rp/Day Every 10 Ds 1,100,000	No	Capital of getting fish and processing	—

Note: Socio-Economic Survey in Fishing Communities in NTB and NTT, 2001, IICA Study Team

Table 2.9.1 Number and Type of Kelompoks in Study Area

Province/District	No. of KUD Mina	Members	MDR*	Active	Non-Active
<b>Nusa Tenggara Barat (NTB)</b>	<b>15</b>	<b>3,231</b>	<b>4</b>	<b>6</b>	<b>5</b>
1) Bima	3	1,120	0	2	1
2) Dompu	3	690	1	2	0
3) Sumbawa	5	106	0	1	4
4) Lombok Barat	1	258	1	0	0
5) Lombok Tengah	1	289	1	0	0
6) Lombok Timur	2	768	1	1	0
<b>Nusa Tenggara Timur (NTT)</b>	<b>13</b>	<b>1,131</b>	<b>0</b>	<b>11</b>	<b>2</b>
1) Alor	3	424	0	3	0
2) Belu	1	52	0	1	0
3) Ende	1	31		1	0
4) Flores Timur	1	-	0	1	0
5) Kupang	2	556	0	1	1
6) Manggarai	1	-	0	1	0
7) Ngada	1	-	0	1	0
8) Sikka	1	-	0	1	0
9) Sumba Barat	-	-	-	-	-
10) Sumba Timur	2	68	0	1	1
<b>Total (NTB +NTT)</b>	<b>28</b>	<b>4,362</b>	<b>4</b>	<b>17</b>	<b>7</b>
<b>Indonesia</b>	<b>751</b>	<b>446,253</b>	<b>100</b>	<b>447</b>	<b>204</b>

Note: Asterisk indicates Mandiri which means KUD Mina which have achieved independence.

Source: Laporan Evaluasi KUD Mina, DGCF

**Table 2.9.2 Number and Type of Kelompoks in Study Area**

Name of Cooperative and Location	Members	Capital (million Rp)		Activities			Remarks
				Credit	Technical	Service	
1. Koperasi Nelayan Mina Geleta (Lewoleba Utara, Nubatukan Lembata-NTT)	84	100	/*1	★	-	★★	Sales of fishing gear and bait fish
2. Koperasi Nelayan Insannadasu (Labahara Jaya, Adonara Timur, Flores Timur -NTT)	170	70	/*1	★	-	★★	Purchase & sales of engines & spare parts
3. Koperasi Nelayan Batumaja (Sagu, Adonara Timur, Flores Timur -NTT)	48	NA	-	-	-	★★	Purchase & sales of engines & spare parts and fish sales
4. Koperasi Usaha Baru (Paga, Paga, Sikka -NTT)	70-80	NA	/*1	★	-	★★	Purchase & sales of fuel
5. Koperasi Nelayan Mina Bahari (Ende - NTT)	150	NA	/*2	-	-	-	No activity
6. Koperasi Perikanan (Bugis, Sape, Bima-NTB)	87	NA	/*3	★	-	-	Only credit
7. KUD Mina Teluk (Waworada, Rangle, Bima -NTB)	184	100	/*1	★	-	★★	Kiosk operation
8. KUD Mina Uni (Soro, Kempo, Dompu -NTB)	440	NA	-	★	-	★★	Purchase & sales of fuel, collection of electric fee and kiosk operation
9. Koperasi Sama Kai (Jambu, Paju, Dompu -NTB)	NA	NA	-	-	-	★★	Collection and sales of lobsters
10. KUD Karya Utan (Lab. Bajo, Utan, Sumbawa -NTB)	200	25	/*1	★	-	★★	WARTEL (phone service)

Note:

\*1, Initial capital provided by the Dinas Koperasi (Dept. of Cooperative) as loan with repayment of three years at an annual interest of 12%.

\*2, Initial capital provided by local district bank as loan.

\*3, Capital provided by private financial source (Pearl Culture Company) as loan through Dinas Koperasi (Repayment is one year at an annual interest of 0.8%)

★, Provision of credit generally ranging from Rp 0.5 million to 1.0 million with interest ranging from 0.6% to 3%/month.

★★, Only a part of a service and does not fulfill the needs of the members.

Credit: refers to working and investment capital for members.

Technical: refers to training and assistance to acquire new and better techniques, extension services

Service: refers to marketing of fish, supply of fishing inputs (ice and fuel), sales of daily commodities

NA, Data not available.

**Table 2.9.3 Number and Type of Kelompok In Study Area**

<b>Province/Type of group</b>	<b>Number</b>
<b>Nusa Tenggara Barat (NTB)</b>	
1) Fishermen group	364
2) Women group	68
3) Tambak group	68
4) Processing group	28
5) Others	4
	<b>532</b>
<b>Nusa Tenggara Timur (NTT)</b>	
1) Fishermen group	328
2) Freshwater fish culture	118
3) Youth fishermen group	84
4) Tambak group	51
5) Processing group	38
	<b>619</b>

Source: Annual reports of Provincial Fisheries Office

**Table 2.11.1 Economic Indictaors of Study Area**

	NTB			NTT						
	Sumbawa***	Dompu	Bima	Manggarai	Ngada	Ende	Sikka	Flores(T)****	Lembata****	
GRDP in 1999 Rp. million current price	1,281,158	467,147	1,036,654	515,315	261,671	309,962	317,814	260173.206	78136.257	
per capita Rp. million current price	3.00	2.49	2.05	0.90	1.22	1.33	1.18	1.40	0.35	
% distribution by industrial origin*	year	1999	1998	1998	1998	1998	1998	1998	1999	1999
Agriculture		40.82	43.15	42.15	52.15	54.18	32.72	42.98	34.87	58
within fishery**		6.42	4.24	5.29	3.00	2.83	5.01	6.26	6.41	10.94
Mining and quarrying		9.64	2.46	2.38	2.51	1.1	2.01	1.07	0.71	0.5
Manufacturing industry		3.33	4.04	4.29	1.15	2.55	2.48	2.49	1.67	0.53
Electricity, gas and W/S		0.50	0.33	0.42	0.82	1.01	0.99	1.02	0.74	0.55
Construction		9.32	7.55	6.50	8.56	7.67	9.52	5.67	3.81	2.74
Trade, hotels and restaurants		15.00	15.98	16.55	7.49	8.31	18.37	14.33	11.6	8.11
Transport & communication		8.14	6.93	9.72	7.16	6.46	10.94	11.09	13.25	7.72
Financial, ownshop & B/S		1.32	2.78	1.59	3.65	3.78	6.92	4.16	6.78	2.91
Services		11.93	16.77	16.40	16.16	14.93	16.06	17.17	26.57	18.94
District Finance in	year	2000	1998/1999	1998/1999	1999/2000	1998/1999	1998/1999	1999/2000	1998/1999	1998/1999
Revenue	Total (in million Rp)	86,135	28,391	57,214	65,557	36,690	36,365	53,098	30,011	9,476
	within L/Gov. Original Receipts	4,524	414	2,066	2,117	1,335	1,428	1,201	951	300
Expenditure	Total	75,218	25,134	52,392	64,808	35,646	34,349	52,540	28,395	8,966
	Routine	50,257	18,695	42,732	53,636	24,536	26,487	34,192	22,824	7,207
	within Personnel Expenditure	41,093	15,003	37,375	46,099	20,811	22,694	28,525	19,415	6,130
	Development	24,961	6,439	9,660	11,172	11,111	7,863	18,348	5,571	1,759
	within Agriculture	3,437	94,805	395	1,586	938	270	524	139	44
	within Education	2,528	1,011	1,449	514	1,736	1,480	2,730	943	298
	within Health	1,348	273	471	920	496	395	725	249	79
Surplus/Deficit		10,917	3,257	4,822	749	1,043	2,016	559	1,616	510

Note:

\* Constant price base

\*\* 1999 data compiled by JICA Study Team

\*\*\* Development expenditures by sector are calculated by JICA Study Team based on the Budget reviewed.

\*\*\*\* The revenue and expenditure of Flores(T) and Lembata were calculated in proportion to the number of population, because of no data separately in 1998/1999 fiscal year.

Source:

Each District Figure