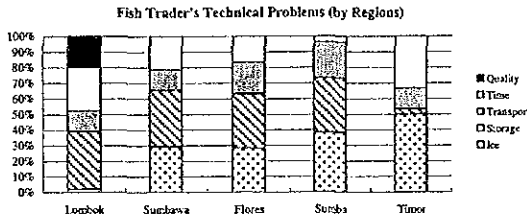
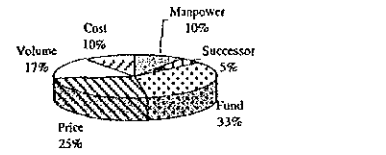
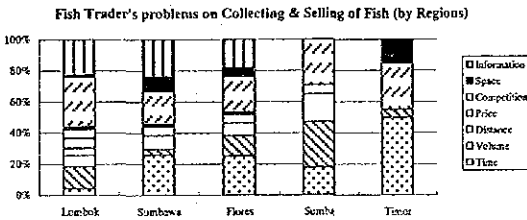
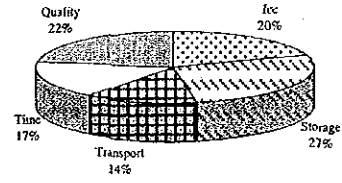


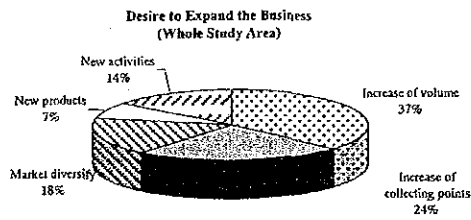
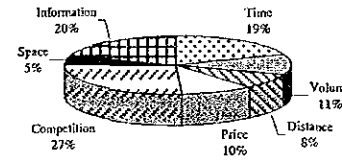
Fish Trader's Management Problems (Whole Study Area)



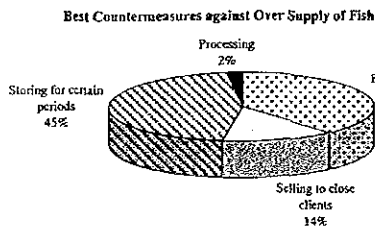
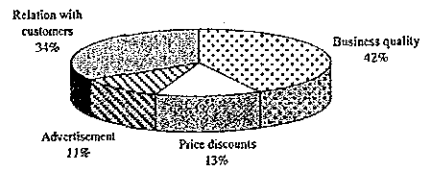
Fish Trader's Technical Problems (Whole Study Area)



Fish Trader's Problems on Collecting & Selling of Fish (Whole Study Area)



Important Points for Sales Promotion



Facilities Most Needed By Fish Traders (Whole Study Area)

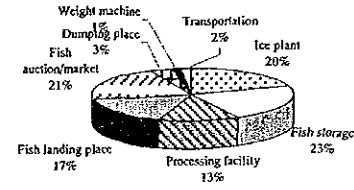
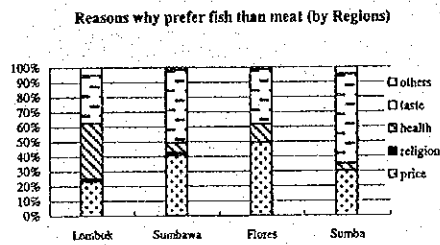
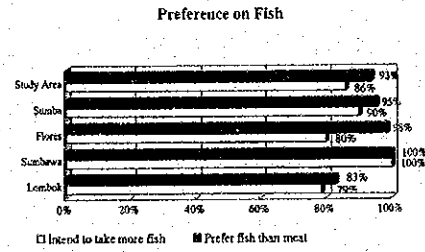
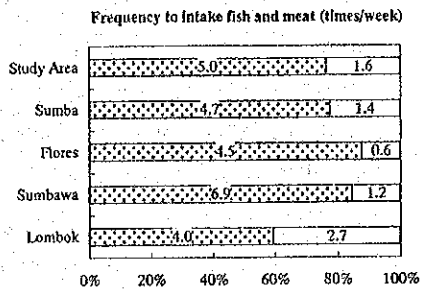
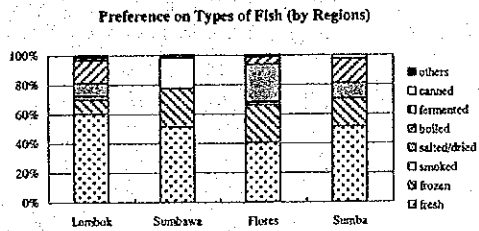
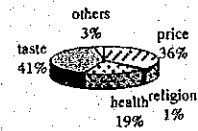


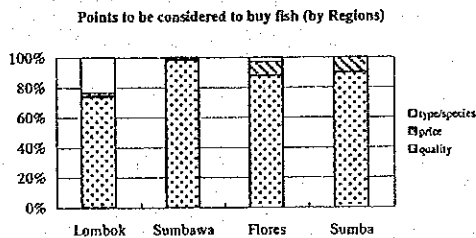
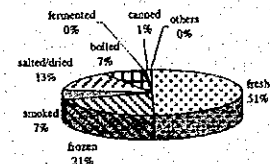
図 2.6.2 流通業者の抱える問題点と要望



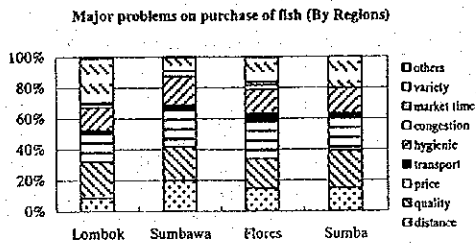
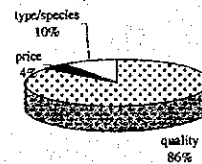
**Reason why prefer fish than meat (Whole Study Area)**



**Type of fish preferred (Whole Study Area)**



**Points to be considered to buy fish (Whole Study Area)**



**Major problems to purchase fish (Whole Study Area)**

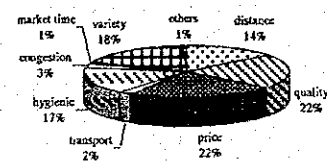
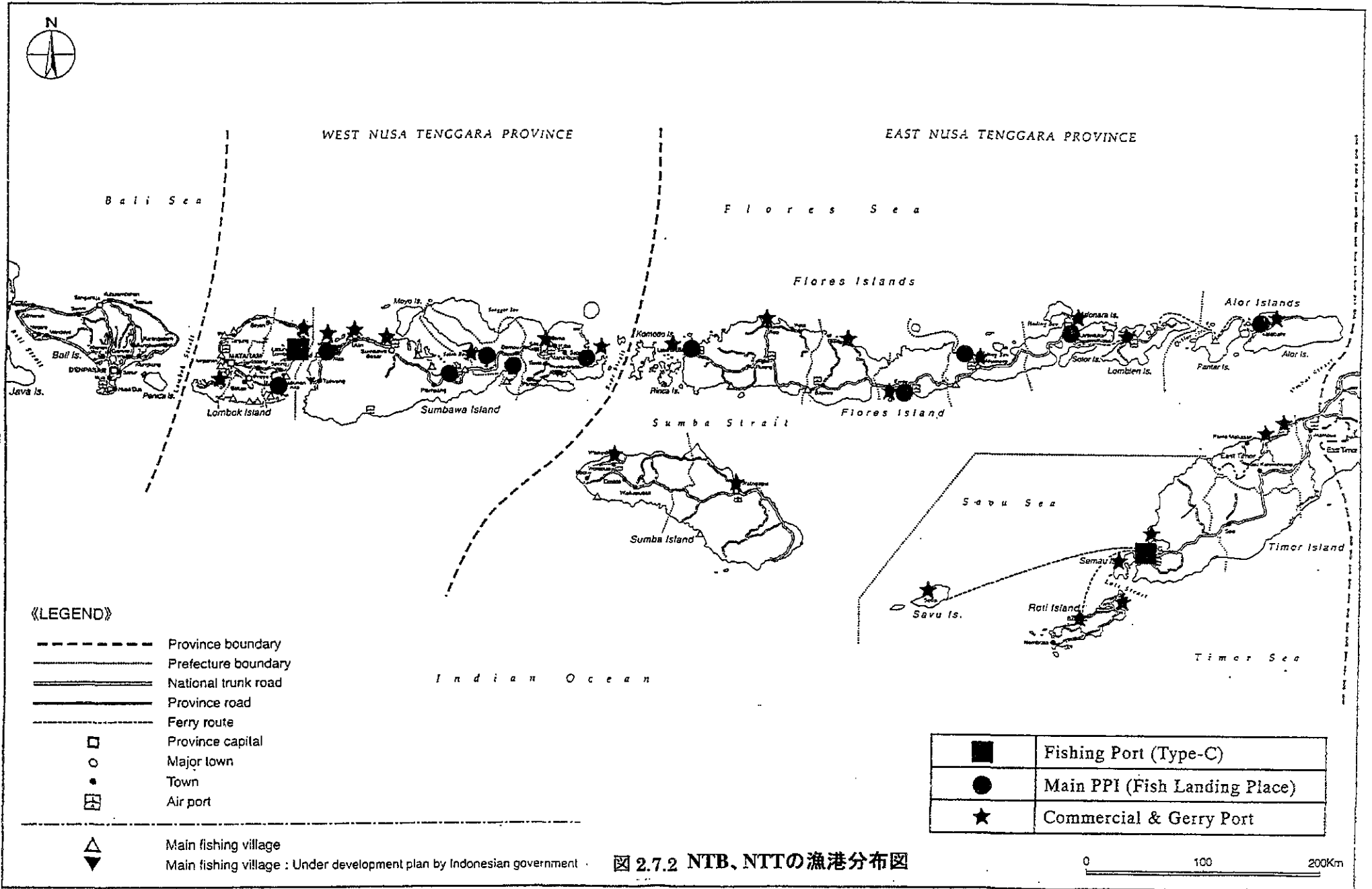


図 2.6.3 水産物の消費嗜好



図 2.7.1 インドネシアの漁港分布図 (Class A, B, C)



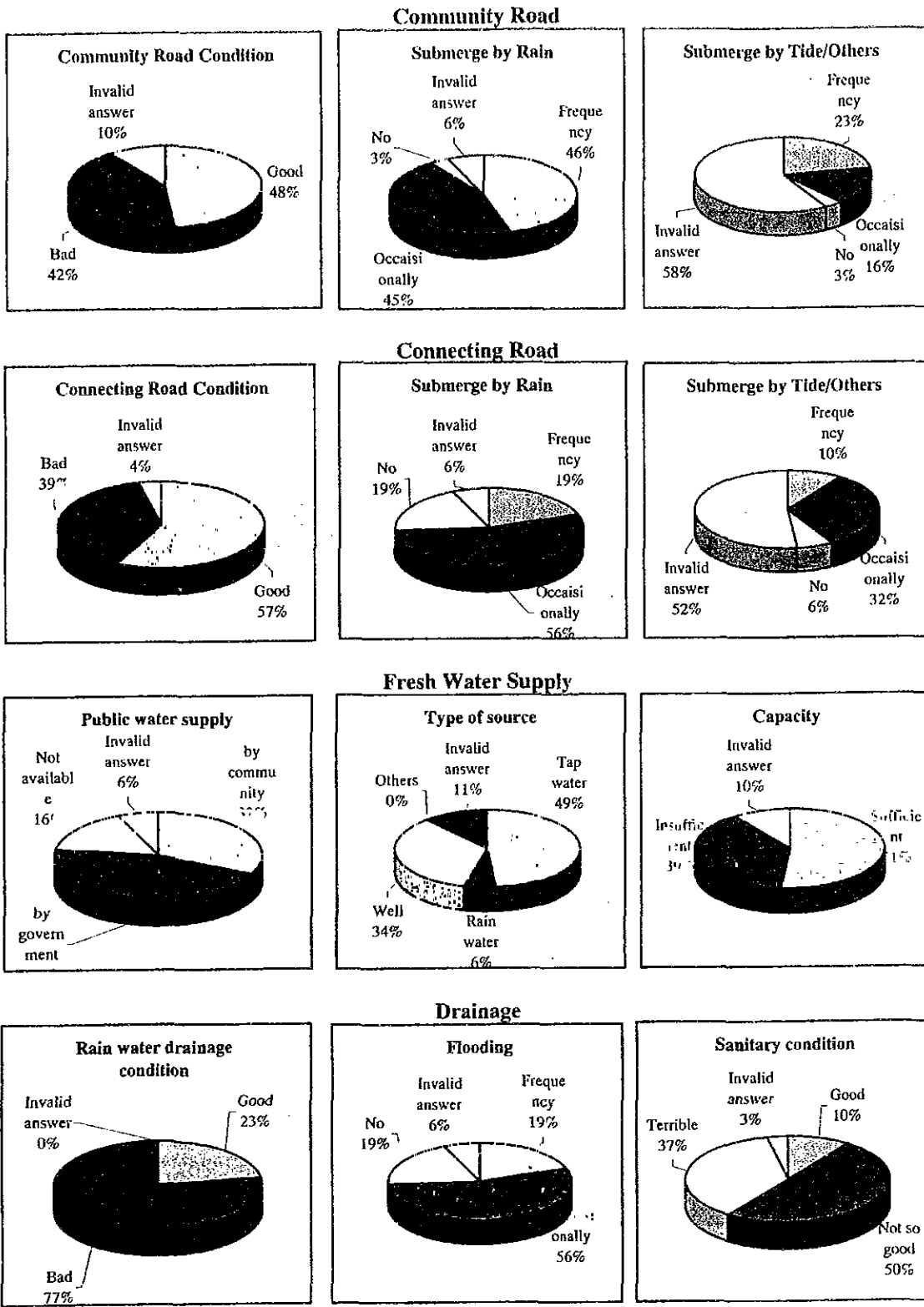
《LEGEND》

- Province boundary
- Prefecture boundary
- ==== National trunk road
- ==== Province road
- Ferry route
- Province capital
- Major town
- Town
- ✈ Air port
- ▲ Main fishing village
- ▼ Main fishing village : Under development plan by Indonesian government

■	Fishing Port (Type-C)
●	Main PPI (Fish Landing Place)
★	Commercial & Gerry Port

図 2.7.2 NTB、NTTの漁港分布図

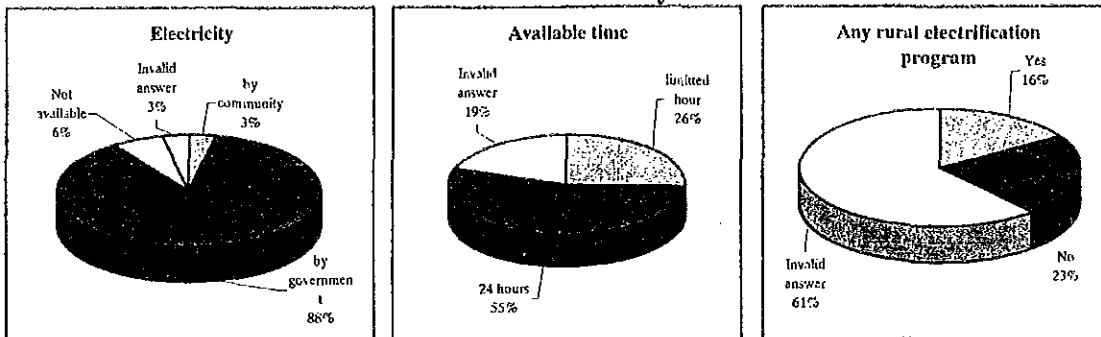
0 100 200Km



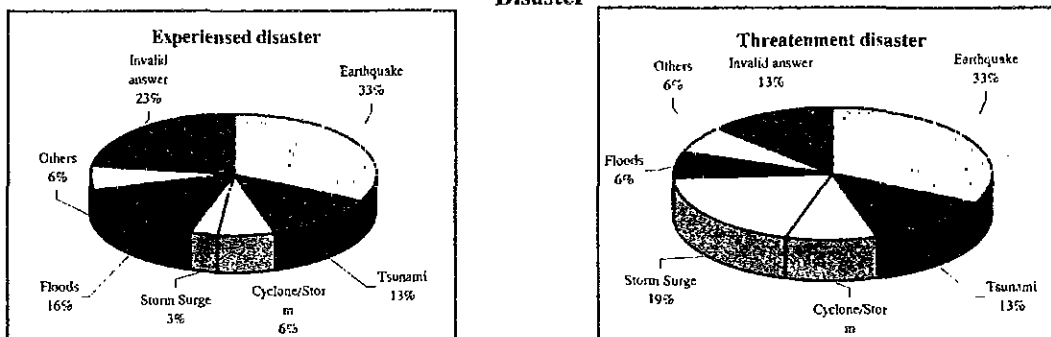
Source: Community leader survey in the study area by the Study Team, July 2001

图 2.7.3 (1) 生活環境の現状 1/2

### Electricity

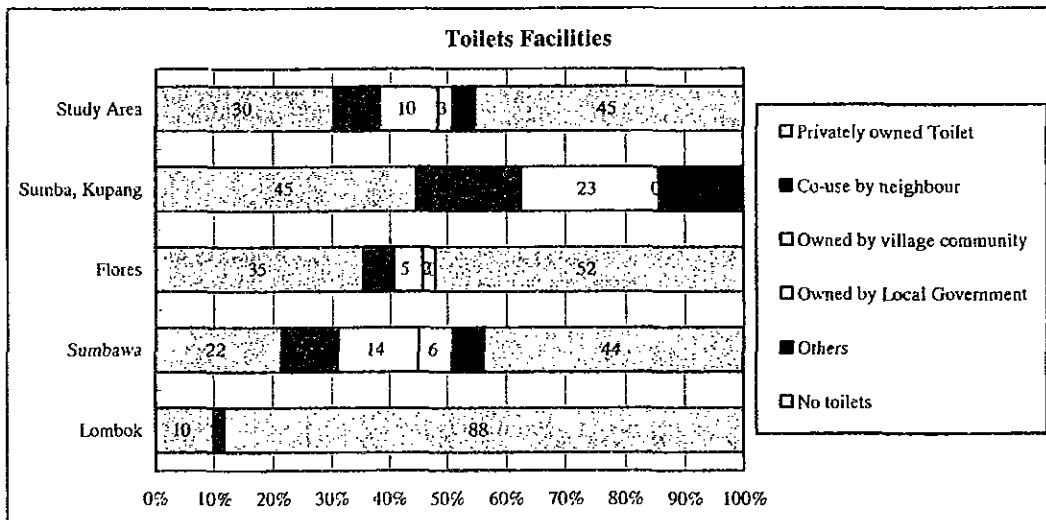


### Disaster



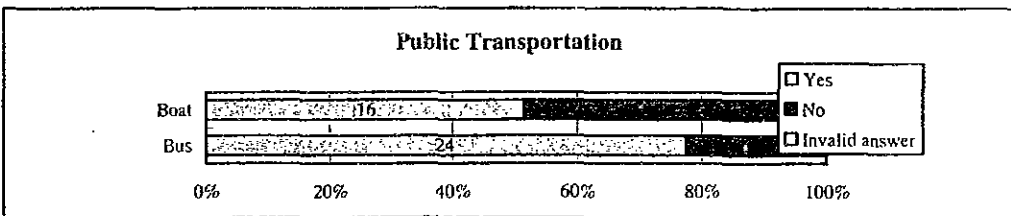
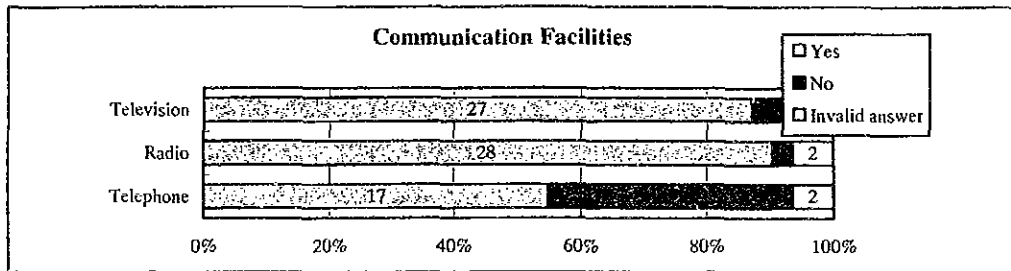
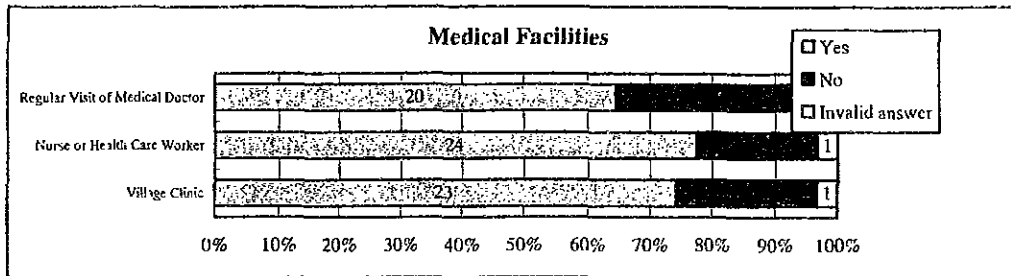
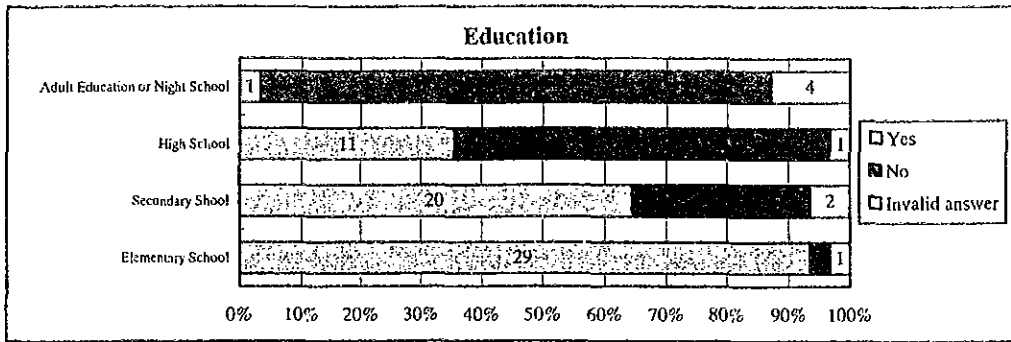
Source: Community leader survey in the study area by the Study Team, July 2001

図 2.7.3 (2) 生活環境の現状 2/2



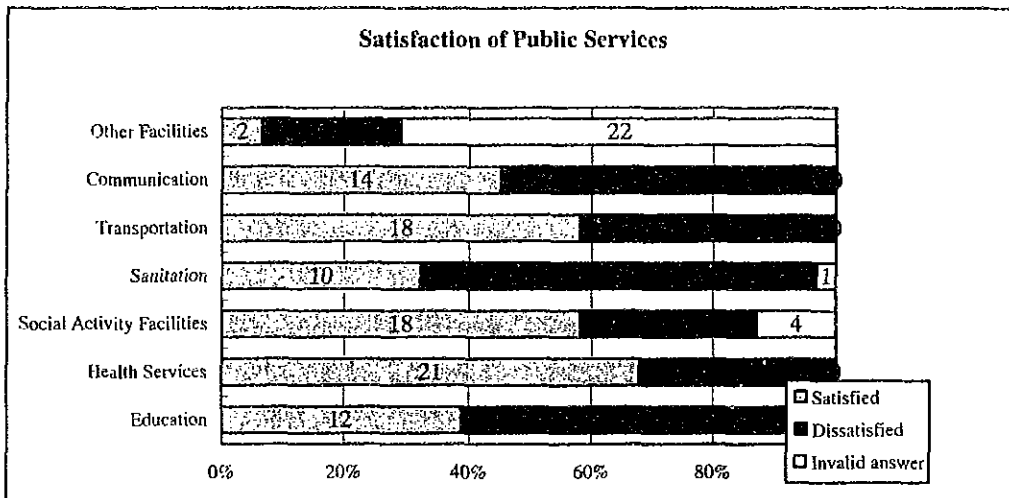
Source: Fisherman household survey in the study area by the Study Team, July 2001

図 2.7.4 トイレ施設の現状



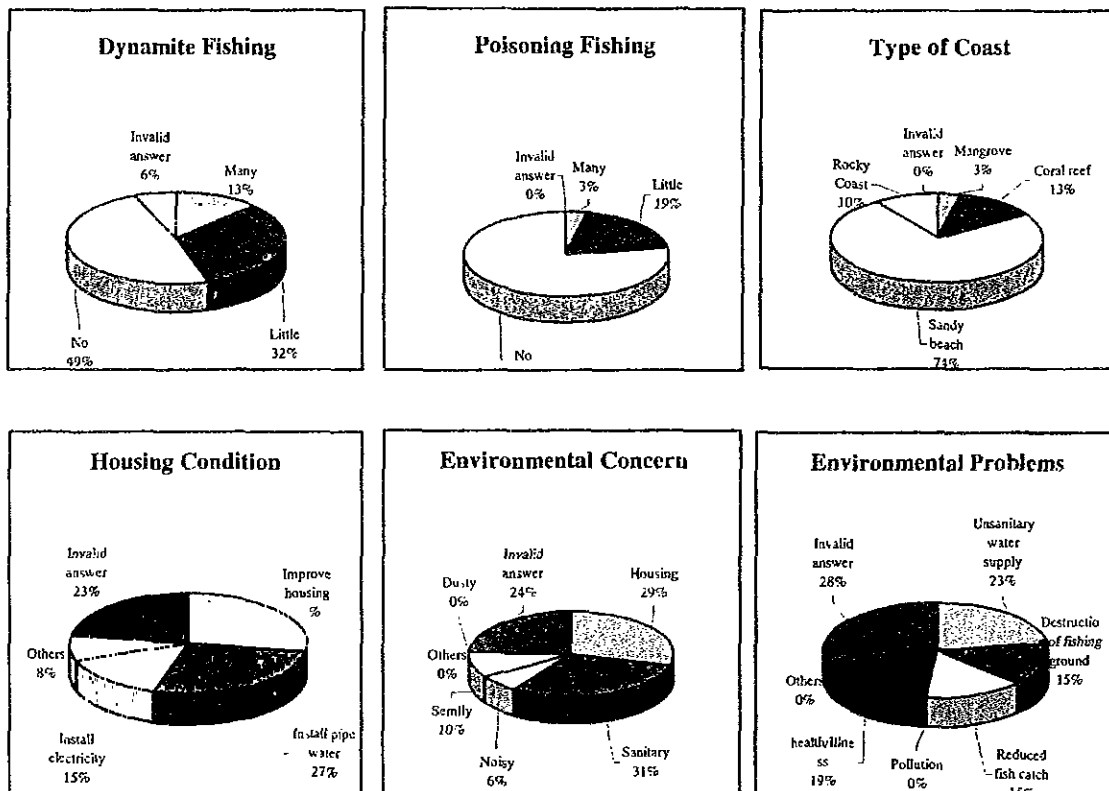
Source: Community leader survey in the study area by the Study Team, July 2001

図 2.7.5 公共サービスの現状



Source: Community leader survey in the study area by the Study Team, July 2001

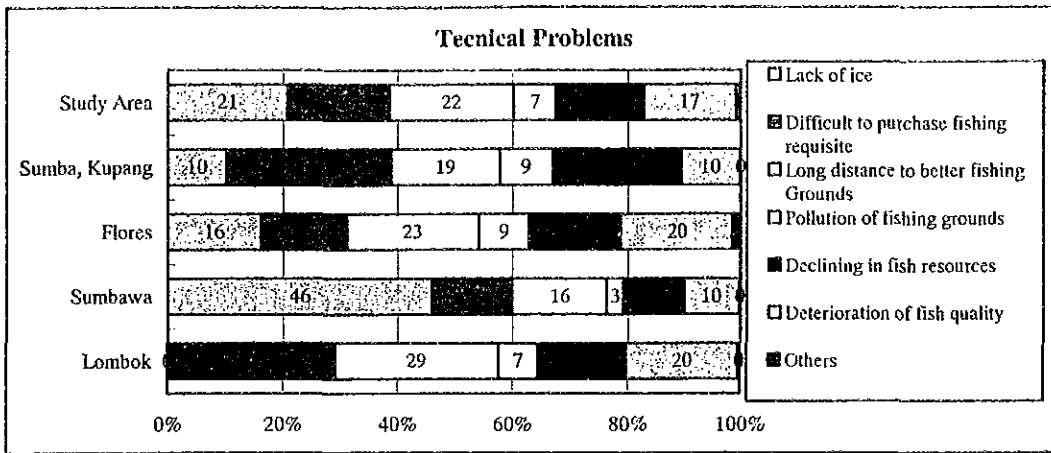
図 2.7.6 公共サービスの満足度



Source: Community leader survey in the study area by the Study Team, July 2001

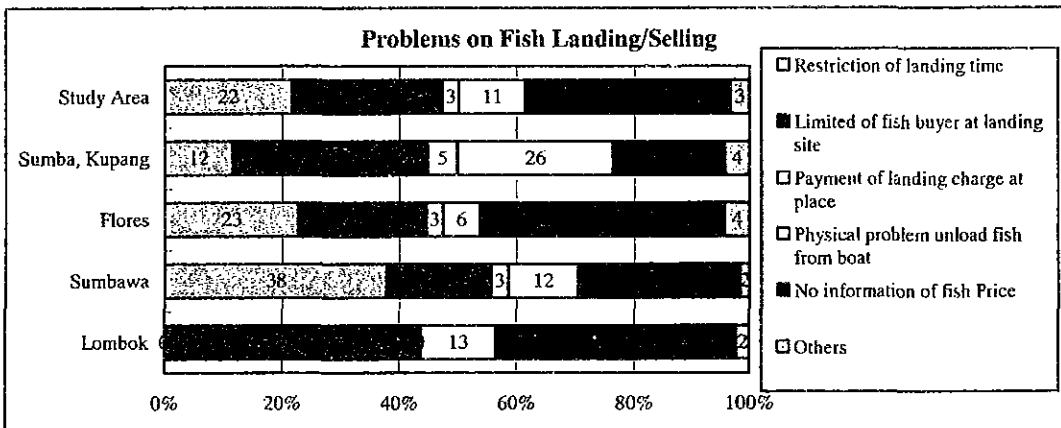
図 2.7.7 環境面





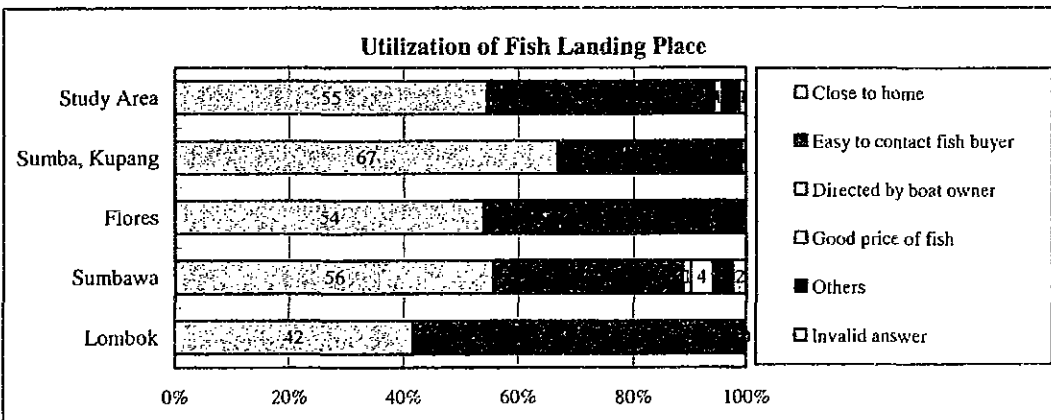
Source: Fisherman household survey in the study area by the Study Team, July 2001

図 2.7.8 漁業技術上の問題点



Source: Fisherman household survey in the study area by the Study Team, July 2001

図 2.7.9 陸揚げ・販売上の問題点



Source: Fisherman household survey in the study area by the Study Team, July 2001

図 2.7.10 陸揚げ地の利用

表1.5.1 養殖セクター目標生産量

	単位: トン					
	2000	2001	2002	2003	2004	2005
海面養殖						
海藻	115,365	140,745	173,117	214,665	259,744	314,291
魚類	32,815	38,553	43,834	47,845	57,893	70,050
小計	148,180	179,298	216,951	262,510	317,637	384,341
汽水池養殖						
粗放的養殖	322,838	371,909	433,894	505,796	571,252	664,080
半集約的養殖	64,568	82,646	105,374	133,887	178,516	224,930
集約的養殖	43,045	56,819	80,580	104,134	142,813	182,087
小計	430,451	511,374	619,848	743,817	892,581	1,071,097
淡水養殖	347,574	419,928	494,963	590,708	705,010	841,477
合計	926,205	1,110,600	1,331,762	1,597,035	1,915,228	2,296,915

出典: DGA

表1.5.2 養殖セクター開発目標面積

	単位: ha					
	2000	2001	2002	2003	2004	2005
海面養殖						
海藻	1,923	2,346	2,885	3,578	4,329	5,238
魚類	820	964	1,096	1,196	1,447	1,751
小計	2,743	3,310	3,981	4,774	5,776	6,989
汽水池養殖						
粗放的養殖	284,031	301,315	309,924	318,779	327,280	334,718
半集約的養殖	56,806	75,329	95,361	119,542	148,764	184,095
集約的養殖	37,871	53,806	71,521	92,977	119,011	150,623
小計	378,708	430,450	476,806	531,298	595,055	669,436
淡水養殖	297,048	352,433	418,183	496,244	588,864	698,815
合計	678,499	786,193	898,970	1,032,316	1,189,695	1,375,240

出典: DGA

表1.5.3 魚種別輸出目標量

	単位: トン					
	2000	2001	2002	2003	2004	2005
エビ類	81,331	101,145	144,974	191,723	235,735	264,661
魚類						
アカメ	4,064	4,871	5,855	7,037	8,458	10,167
ハタ類	817	988	1,190	1,432	1,724	1,987
ティラピア	15,152	17,981	21,313	25,268	29,961	35,530
スッポン	849	1,011	1,204	1,434	1,707	2,034
小計	20,882	24,851	29,562	35,171	41,850	49,718
カニ類	1,238	1,350	1,483	1,631	1,793	1,972
カエル	415	450	493	540	592	649
海藻	23,073	26,334	31,428	37,514	44,787	53,479
観賞魚	1,897	2,275	2,770	3,373	4,107	5,001
貝類	291	326	356	390	426	466
真珠	9	12	14	18	22	28
その他	14,608	16,390	18,406	20,688	23,274	26,183
合計	143,744	173,133	229,486	291,048	352,586	402,157

出典: DGA

表1.5.4 養殖セクター推定雇用人口

単位: 人

	2000	2001	2002	2003	2004	2005
海面養殖						
海藻	19,228	23,458	28,853	35,777	43,291	52,382
魚類	16,408	19,276	21,917	23,923	28,946	35,025
小計	35,636	42,734	50,770	59,700	72,237	87,407
汽水池養殖						
粗放的養殖	568,061	602,630	619,848	637,558	654,559	669,436
半集約的養殖	227,225	301,315	381,445	478,168	595,054	736,379
集約的養殖	227,225	322,838	429,126	557,863	714,065	903,738
小計	1,022,511	1,226,783	1,430,419	1,673,589	1,963,678	2,309,553
淡水養殖	841,122	1,000,892	1,191,089	1,417,526	1,687,120	2,008,123
合計	1,899,269	2,270,409	2,672,278	3,150,815	3,723,035	4,405,083

出典: DGA

表1.5.5 NTB・NTT養殖可能面積

単位: ha

	NTB	NTT
汽水池養殖		
エビ類	1,000	800
エビ類&サバヒー	13,000	1,000
エビ類&ナマコ	24,400	3,200
合計	38,400	5,000
海面養殖		
アカメ		12,500
ハタ類	112,500	80,000
貝類	—	10,000
ナマコ	1,000	—
真珠貝/アワビ	27,300	27,500
海藻	12,000	1,000
合計	152,800	131,000

出典: DGA

表 2.1.1 NTB州の月別平均降雨日数 (1999)

単位:日

District	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
Kodya mataram	17	16	15	10	3	2	4	3	5	12	16	19

出典: NUSA TENGGARA BARAT DALAM ANGKA 1999

表 2.1.2 NTB州の月別平均降雨量 (1999)

単位:mm

District	JAN.	FEB.	MAR.	APR.	MAY.	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	Total
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

出典: NUSA TENGGARA BARAT DALAM ANGKA 1999

表 2.1.3 NTB州の月間平均降雨量の推移 (1995-1999)

単位:mm

District	1995	1996	1997	1998	1999	Average
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

出典: NUSA TENGGARA BARAT DALAM ANGKA 1999

表 2.1.4 スンバワ・プサール (NTB州スンバワ県) の月別気候 (1999)

Year		JAN.	FEB.	MAR.	APR.	MAY.	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.
2000	Rain Fall (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. Rain Fall 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	SE	W

出典: Badan Meteorologi dan Geofisika, Departemen Perhubungan

表 2.1.5 NTT州の月間平均降雨量 (1999)

単位:mm

District	JAN.	FEB.	MAR.	APR.	MAY.	JUN.	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	Total
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	-	-	-	-	-	-	-	-	-	-	-	-	0
Ator	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	-	-	-

出典: NUSA TENGGARA TIMUR DALAM ANGKA 1999

表 2.1.6 クバン市の月間平均日射率の推移 (1996-1999)

単位:%

Year	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												

出典: NUSA TENGGARA TIMUR DALAM ANGKA 1999

表 2.1.7 マウメレ市(NTT州シッカ県)の月別気候 (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	3	8	10
	Max. Rain Fall a Day (mm)		88	20	59	81	15	1	0	0	42	27	30
	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	SE	SW	W

出典: Badan Meteorologi dan Geofisika, Departemen Perhubungan

表 2.1.8 1992年12月地震・津波被害 (Sikka県)

Kecamatan/ Perw.	People dead & Injured (Persons)				Facilities damaged (No.)											
	Dead	Heavy Injured	Slight Injured	Total	Gov. 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>

出典: 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

表 2.1.9 1992年12月地震・津波による地域別被害実態 (Sikka県)

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
Sub Total				1,351	5,744	-
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	
Sub Total				1,325	7,432	-
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
Sub Total				321	1,334	-
Lela	1. Sikka	S.C.	a. Sikka	52	303	Wukur
			-sda-	66	380	Bidara
			b. Du	37	218	Tanaling
	2. I;igai)	S.C.	a. SDK. Puho	18	89	Iligai
Sub Total				193	1,109	-
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. Iimodo	34	145	-sda-
			f. Tanahmerah	51	258	-sda-
			g. Magegano	7	24	Mageloo
Sub Total				575	2,583	-sda-
Bola	1. Hokor	S.C.	a. Kompleks Pastoran Hokor	6	19	Hoko
			b. Todang	10	29	-sda-
Sub Total				16	48	-sda-
Total				3,781	18,250	-sda-

出典: 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

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

表 2.1.10 飲料用給水施設の世帯割合(州別), 2000

単位: %

Province	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

出典: Welfare Statistic 2000, National Socio-Economic Survey, BPS



表 2.1.11 飲料用水源の世帯割合(州別), 1999

単位: %

Province	Pipe	Pump	Protected well	Unprotected well	Protected spring	Unprotected spring	Rivers	Rain water	Package	Others
Dista Aceh	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

出典: Statistic Indonesia, Statistical Year Book of Indonesia, 1999

表 2.1.12 飲料用水源と汚水溜との距離の世帯割合(州別), 2000

単位: %

Province	<6m	6-10m	11-15m	≥16m	Not Stated	Total
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

出典: Welfare Statistic 2000, National Socio-Economic Survey, BPS

表 2.1.13 トイレ施設の世帯割合(州別), 1999

単位: %

Province	Private	Shared	Public	Others	Total
Dista Acoh	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

出典: Statistic Indonesia, Statistical Year Book of Indonesia, 1999

表 2.1.14 照明用電源の世帯割合(州別), 1999

単位: %

Province	PLN	Non PLN	Pumped Lamp	Oil Lamp	Others	Total
Dista 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

出典: Statistic Indonesia, Statistical Year Book of Indonesia, 1999

注: PLN: State Electricity, Non PLN: Privately Generated Electricity

表 2.1.15 調理用燃料の世帯割合(州別), 1999

単位: %

Province	Electricity	Gas/LPG	Kerosene	Firewood	Charcoal/ Coal	Others	Total
Dista 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

出典: Statistic Indonesia, Statistical Year Book of Indonesia, 1999

表2.4.1 県別海面漁業生産量 (1990~99年)

District	Marine Fishery Production(ton)										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	5,777	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	5,007	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	5,129	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/Lembat	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	1.37	1.40	1.51
Timor Tensei	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
Production Zone Tot	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	48,789	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	9,637	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

表 2.4.2 漁民の問題とニーズ

JICA調査団社会経済調査結果(2001年)に基づいた漁民の抱える問題とニーズは次表のとおりである。  
運営面での問題

県	マンパワー の不足	後継者不足	資金不足	魚価の下落	コスト増	競合	低所得	漁業では 生活困難
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%

## 技術面での問題

	氷不足	漁具購入上の問題	漁場への距離	漁場の汚染	漁業資源の 減少	漁獲物の 品質問題
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%

## 陸揚げおよび販売面での問題

	陸揚げ時間	集荷業者の不足	陸揚げ場使用料	荷捌きが困難	価格情報の 欠如
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%

## 漁業活動拡大への意向

	拡大を希望	新しい漁場	より良い漁具・ 漁法	他サイトへの販売	新しい仕事 の開始	転職
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%

表2.4.3 東別漁業規模に関するデータ (1998年)

(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 RTP	Production per RTP		No. of fishing boats			Occupancy Rate by RTP			Motorization Rate	
	Value (ton)	Value million Rp			Volume (ton)	Value million Rp	Non-motor	Outboard	Inboard	Total	Boat	Engine		Inboard
Lombok Barat	12,132	51,986	7,583	3,997	3.04	23.02	2,851	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%	0.3%	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	22,385	52,581	2,351	3,809	5.87	19.80	2,327	1,125	115	3,567	93.6%	32.6%	3.0%	34.8%
Dongu	6,940	19,884	2,855	1,227	5.66	16.21	732	363	121	1,216	99.1%	39.4%	9.9%	39.8%
Bima	19,465	32,245	1,637	1,843	10.53	17.45	309	259	1,295	1,863	100.0%	84.1%	70.1%	82.4%
Sumba Barat	1,595	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	1,030	36	13	1,129	30.5%	1.3%	0.4%	4.3%
Manggarai	5,474	23,952	4,377	4,115	1.33	5.82	867	26	275	968	23.5%	7.3%	6.7%	31.1%
Ende	4,333	10,970	2,520	1,130	3.83	9.66	702	20	30	752	66.5%	4.4%	2.7%	6.6%
Sikka	7,200	28,740	3,922	2,950	2.43	9.54	1,922	27	331	2,280	17.0%	12.1%	11.2%	15.1%
Flores Timur/Lembata	7,911	27,574	3,458	2,860	2.77	9.68	1,127	200	35	2,482	65.8%	10.3%	3.3%	11.9%
Alor	11,102	14,056	1,266	4,069	2.73	3.46	1,407	123	216	3,746	92.1%	8.3%	5.3%	9.0%
Kupang	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 Tensei	28,082	74,222	2,643	3,005	9.34	24.70	1,636	302	694	2,632	88.9%	32.8%	22.0%	36.9%
Timor Tenute	27	41	1,539	679	0.04	0.06	250	10	0	260	38.3%	1.5%	0.0%	3.8%
Belu	272	703	2,590	704	0.39	1.00	517	3	14	534	75.9%	2.4%	2.0%	3.2%
NTB Average	2,053	5,313	2,550	1,077	1.93	4.93	957	18	20	995	92.4%	3.5%	1.9%	3.8%
Production Zone														
Lombok	29,854	214,734	7,193	9,460	3.16	22.70	6,063	2,046	143	8,256	87.3%	23.2%	1.6%	26.6%
Sumbawa	43,769	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	36	305	1,720	32.8%	6.7%	5.8%	20.4%
East Flores	26,213	69,970	6,697	9,888	2.65	7.08	7,516	350	642	8,508	66.0%	10.0%	5.5%	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	5.37	14.69	3,410	333	719	4,461	81.6%	19.2%	13.1%	23.6%
NTB Average	78,824	319,445	4,063	16,344	4.81	19.55	9,431	3,793	1,690	14,904	91.2%	33.5%	10.3%	36.7%
NTT Average	19,598	207,021	21,591	28,433	2.80	7.28	15,039	774	1,742	17,555	61.7%	8.8%	6.1%	14.3%
Survey Area Total	158,222	526,456	25,954	44,782	3.53	11.76	24,470	4,567	3,422	32,459	72.5%	17.8%	7.6%	24.6%

出典: Fisheries Statistics of NTT and NTB 1999

注: Marine fish production in Flores Timur and Lembata in 2050 is 7,985 tons and 1,286 tons respectively.

(2) Number of Fishing Boats by Type and District

District	No. of non-motorized boats				No. of outboard motor boat	No. of inboard engine boats				of non-motorized boats by types of boat				
	Jukung	Planked boat without motor	small	medium		large	<5GT	5-10GT	10-20GT	20-50GT	Out-wal boat	Planked boat without motor	small	medium
Lombok Barat	2,003	858	0	0	324	8	0	0	0	708	305	0%	0%	0%
Lombok Tengah	459	0	0	0	109	3	2	0	0	1008	0%	0%	0%	0%
Lombok Timur	2,053	415	255	0	1,613	70	126	0	0	753	15%	9%	0%	0%
(Lombok Total)	4,514	1,273	255	0	2,046	21	128	0	0	758	21%	4%	0%	0%
Sumbawa	2,179	64	68	16	1,125	115	0	0	0	945	3%	3%	1%	1%
Dongu	732	0	0	0	363	0	57	64	0	1008	0%	0%	0%	0%
Bima	234	75	0	0	259	632	351	272	40	768	24%	0%	0%	0%
(Sumbawa Total)	3,145	139	68	16	1,747	747	408	336	40	538	4%	2%	0%	0%
NTB Total	7,679	1,412	324	16	3,793	768	516	336	40	812	15%	3%	0%	0%
Sumba Barat	376	0	0	0	0	6	8	0	0	1008	0%	0%	0%	0%
Sumba Timur	1,015	65	0	0	36	13	0	0	0	945	6%	0%	0%	0%
(Sumba Total)	1,391	65	0	0	36	19	0	0	0	954	4%	0%	0%	0%
Manggarai	314	332	21	0	26	275	0	0	0	478	50%	3%	0%	0%
Ende	211	411	80	0	20	30	0	0	0	308	59%	11%	0%	0%
Sikka	220	1,702	0	0	27	302	29	0	0	11%	89%	0%	0%	0%
Flores Timur/Lembata	2,051	136	0	0	200	33	35	23	4	948	6%	0%	0%	0%
Alor	1,211	77	0	0	123	150	56	10	0	868	11%	3%	0%	0%
(Flores Total)	6,929	3,029	215	0	405	844	124	33	4	63%	30%	2%	0%	0%
Kupang	1,320	366	0	0	302	262	271	135	15	787	22%	0%	0%	0%
Timor Tensei	250	0	0	0	10	0	0	0	0	1008	0%	0%	0%	0%
Timor Tenute	255	267	0	0	3	14	0	0	0	435	51%	0%	0%	0%
Belu	475	482	0	0	18	20	0	0	0	508	50%	0%	0%	0%
(Timor Total)	2,300	1,110	0	0	333	296	271	135	15	87%	33%	0%	0%	0%
NTT Total	10,620	4,204	215	0	774	1,159	355	169	19	71%	28%	1%	0%	0%

出典: Fisheries Statistics of NTT and NTB 1999



表 2.4.4 NTB 州水域、魚種及び県別の漁業賦存資源量

単位: トン

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

出典: Dinas Perikanan Propinsi NTB, 1999

表2.4.5 NTT州漁業賦存資源量

単位: トン

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
合計		220,456	42,618	263,074

出典:

- (1) Rencana Induk Pengembangan Perikanan 2000-2004 Estimated by Johanes 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.

表2.4.6 漁業資源開発レベルの現状 (TACベース)

District	Catch in 1999 (ton/year)1)								Marine Fish Resources (TAC)2)			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	6,104	10,033	16,197	61%	79%	73%
Lombok Tengah	156	986	1,142	26	72	0	98	1,240	1,109	2,211	4,200	8%	45%	27%
Lombok Timur	3,224	12,566	15,789	90	504	0	594	16,383	1,557	6,843	11,400	71%	184%	139%
(Lombok Total)	7,162	21,524	28,686	371	670	0	1,041	29,727	12,770	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%
NTB Total	21,670	52,555	74,225	1,281	2,693	66	4,041	78,266	41,084	57,366	98,450	53%	92%	75%
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	5,228	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	42,264	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%
NTT Total	14,380	60,883	75,262	816	1,787	777	3,381	78,643	42,619	220,457	263,076	34%	28%	29%

出典: 1) NTB、NTT州漁業統計、1999

2) Referred to Table 2.4.4 and 2.4.5

表2.5.1 1998年魚種別・州別汽水池養殖生産量

単位:トン

州	魚類							甲殻類							合計
	ウナギ	サバヒー	ボラ	アカメ	ティラピア	その他	小計	ウシエビ	ホワイトシュリンプ	その他エビ類	アミ類	ガザミ	ノコギリガザミ	小計	
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
合計	6,821	158,666	8,386	2,039	21,593	35,204	232,709	74,824	22,589	20,434	264	2,065	866	121,042	353,751

出典: Statistik Perikanan Indonesia, 1998

表2.5.2 1998年魚種別・県別汽水池養殖世帯数

単位:漁家

州	サバヒー	エビ類	サバヒー& エビ類	伝統的粗放 養殖	合計
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
合計	45,257	43,559	29,044	26,551	144,411

出典: Statistik Perikanan Indonesia, 1998

表2.5.3 1998年県別汽水養殖池面積および単位面積あたり生産量

州	生産量(トン)	池面積(ha)	単位面積当り生産量 (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
合計/平均	353,751	305,699	1,157

出典: Statistik Perikanan Indonesia, 1998

注: Sumatra Selatanの単位面積当り生産量32,767kg/haは異常値と考えられる。検証が必要。

表2.5.4 インドネシアにおける養殖可能魚種および養殖現況

養殖可能魚種	養殖技術		養殖活動	
	種苗生産	育成	種苗生産	育成
魚類				
サバヒー	E	E	P	P
サラサハタ	E	R	P	N
アカマダラハタ	E	E	P	N
チャイロマルハタ	E	E	P	P
アカメ	E	E	P	P
フエダイ	R	R	N	N
アイゴ	E	E	N	N
センネンダイ	N	E	N	N
甲殻類				
ウシエビ	E	E	P	P
ホワイトシュリンプ	E	E	P	P
ガザミ	R	N	N	N
ノコギリガザミ	R	P	N	P
貝類				
カキ	E	E	N	N
アカガイ	N	E	N	N
真珠貝	E	放流用	P	P
アワビ	E	放流用	N	N
棘皮動物				
ナマコ	R	R	N	P

注1) 養殖技術: E; 産業として確立、R; 研究レベルで確立、N; 未確立

2) 養殖活動: P; 民間が事業として実施(ケロンボック等を含む)、  
R; 研究機関でのみ飼育、N; 活動無し

表2.5.5 2001年バリ島ハタ種苗生産量

	単位:尾							合計
	1月	2月	3月	4月	5月	6月	7月	
サラサハタ	150,000	75,000	200,000	100,000	150,000	80,000	50,000	805,000
アカマダラハタ	-	-	-	20,000	60,000	100,000	90,000	270,000
合計	150,000	75,000	200,000	120,000	210,000	180,000	140,000	1,075,000

出典: ゴンドール水産研

表2.5.6 イケス養殖初期投資額

イケス	Rp.	25,698,500
飼育用機材	Rp.	3,130,000
合計	Rp.	28,828,500
原価償却期間	3 years	
積立金	Rp.	9,609,500

表2.5.7 魚種別生産量当り減価償却積立金

魚種	飼育期間 (month)	生産量/回 (kg)	3年間の総生 産量 (kg)	原価焼却/積 立金 (Rp./kg)
サラサハタ	14	300	771	12,457
アカマダラハタ	8	300	1,350	7,118
アカメ	6	2,000	12,000	801
アイゴ	6	2,000	12,000	801

表2.5.8 養殖魚種別生産単価および販売単価

魚種	運営費 (Rp.1000)				原価焼却/ 積立金 (Rp./kg)	Kg当り生 産費 (Rp./kg)	販売単価 (Rp./kg)	差 (Rp./kg)
	種苗	餌料	人件費	合計				
サラサハタ	15,000	7,500	12,600	35,100	12,457	70,957	283,500	212,543
アカマダラハタ	10,000	7,500	7,200	24,700	7,118	48,285	72,900	24,615
アカメ	10,500	52,500	5,400	68,400	801	17,087	10,000	-7,087
アイゴ	350	6,300	5,400	12,050	801	3,670	10,000	6,330

注:種苗単価、卸売価格およびその他のコストは現地調査結果に基づく推定値  
各魚種のFCRは5と仮定した。



表2.5.9 1999年に空輸または外国船により香港に  
輸入された海産活魚推定量

魚種	重量(トン)	%
グリーングルッパ	1,789	19.5
スジアラ	1,439	15.7
マダラハタ	317	3.5
オオアオノメアラ	76	0.8
アカマダラハタ	60	0.7
タマカイ	15	0.2
サラサハタ	5	0.1
その他ハタ類	1,598	17.5
メガネモチノウオ	5	0.1
ベラ科・ブダイ科	1	0.0
ゴマフエダイ	566	6.2
その他	3,285	35.9
合計	9,156	100.0

出典: The Second Asia-Pacific Seminar-Workshop on the Live Reef Fish

Trade, 7-8, August 2000

注: 対象国; タイ、中国、インドネシア、台湾、マレーシアなど

表2.5.10 1999年に香港漁船により香港に輸送された  
海産活魚の推定量

魚種	重量(トン)	%	金額 (百万香港ドル)
グリーングルッパ	340	7.7	30.26
スジアラ	316	7.1	69.88
マダラハタ	471	10.6	71.56
オオアオノメアラ	274	6.2	46.45
アカマダラハタ	435	9.8	50.07
タマカイ	17	0.4	2.98
サラサハタ	14	0.3	6.46
その他ハタ類	530	12.0	48.98
メガネモチノウオ	100	2.3	22.72
ベラ科・ブダイ科	217	4.9	11.82
ゴマフエダイ	1347	30.4	53.77
その他	368	8.3	16.73
合計	4,429	100.0	431.68

出典: The Second Asia-Pacific Seminar-Workshop on the Live Reef Fish

Trade, 7-8, August 2000

注: 対象国; インドネシア、マレーシアなど

表2.5.11 市場価格が50%下落した場合のハタ養殖の採算性

魚種	生産コスト (Rp./kg)	販売価格 (Rp./kg)	差 (Rp./kg)
サラサハタ	70,957	141,750	70,793
アカマダラハタ	48,285	36,450	-11,835

表2.5.12 海藻養殖の運営費用

No.	費目	数量	単価 (Rp.)	合計
1	竹竿	5 pcs	7,000	35,000
2	ロープ 4mm	2 kg	16,000	32,000
3	ロープ 8mm	2 kg	16,500	33,000
4	錨	4 pcs	1,500	6,000
5	種苗	175 kg	1,000	175,000
6	ボートレンタル	1 set	25,000	25,000
合計				306,000

出典：Lombok Aquaculture Station

表2.5.13 1990～99年県別汽水池養殖生産量

		単位:トン									
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
NTB	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	-	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	-	-	-	-	-	-	-	-	-	-
小計		4,493	5,725	5,854	6,339	6,033	6,208	6,621	6,824	7,162	6,954
NTT	Sumba Barat	-	-	-	-	-	-	-	-	0	1
	Sumba Timur	0	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	14	7	15	20	9	-
	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	-	0	0	0	0	-	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
小計		73	104	117	152	446	108	117	118	220	191
合計		4,566	5,829	5,970	6,491	6,478	6,316	6,738	6,942	7,382	7,145

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

注：“Flores Timur”はロンバタ県を含まない。また“Kupang”に州都Kupangは含まない

表2.5.14 1990～99年県別汽水池養殖魚類生産量

		単位:トン									
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
NTB	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	-	-	-	-	-	-	-	-	-	-
	小計	4,387	4,348	4,450	4,828	5,217	5,629	5,885	6,016	6,222	5,434
NTT	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	-
	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
	小計	46	46	59	108	259	63	81	110	160	126
合計	4,433	4,394	4,508	4,935	5,476	5,692	5,966	6,126	6,382	5,559	

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

注: "Flores Timur"はレンバタ県を含まない。また"Kupang"に州都Kupangは含まない

表2.5.15 1990～99年県別汽水池養殖エビ類生産量

		単位:トン									
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
NTB	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	-	-	-	-	-	-	-	-	-	-
	小計	583	1,378	1,404	1,512	816	580	736	808	940	1,520
NTT	Sumba Barat	-	-	-	-	-	-	-	-	-	-
	Sumba Timur	2	8	9	15	16	6	2	1	-	-
	Manggarai	-	-	-	-	-	-	-	-	1	-
	Ngada	-	-	-	-	-	-	2	1	-	-
	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
	小計	29	57	58	45	189	45	36	8	61	65
合計	612	1,435	1,462	1,556	1,004	625	772	816	1,001	1,586	

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

注: "Flores Timur"はレンバタ県を含まない。また"Kupang"にKupang首都は含まない

表2.5.16 1990～99年県別養殖池面積

		単位:ha									
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
NTB	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	-	-	-	-	-	-	-	-	-	-
	小計	4,520	4,543	4,865	4,865	4,859	4,745	4,936	5,681	4,859	10,215
NTT	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
	小計	335	348	350	350	350	279	286	357	344	341
	合計	4,855	4,892	5,215	5,215	5,209	5,024	5,222	6,038	5,203	10,556

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

注: "Flores Timur"はロンバーク県を含まない。また"Kupang"にKupang首都は含まない

表2.5.17 1990～99年県別単位面積当り汽水養殖生産量

		単位:kg/ha									
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
NTB	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	-	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	-	-	-	-	-	-	-	-	-	-
	NTB平均	994	1,260	1,203	1,303	1,242	1,308	1,341	1,201	1,474	681
NTT	Sumba Barat	-	-	-	-	-	-	-	-	250	533
	Sumba Timur	25	1,038	1,088	1,925	1,975	775	575	346	2,250	343
	Manggarai	29	15	36	41	42	266	1,037	23	76	90
	Ngada	331	177	224	211	218	193	363	524	209	-
	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	390	598	550	713	730	399	330	772	721	777
	Belu	67	50	95	95	109	435	279	244	177	235
	NTT平均	217	297	334	435	1,275	389	409	331	640	560
	平均	941	1,192	1,145	1,245	1,244	1,257	1,290	1,150	1,419	677

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

注: "Flores Timur"はロンバーク県を含まない。また"Kupang"にKupang首都は含まない

表2.5.18 1990～99年海藻生産量

単位:トン

	1990	1991	1992	1993	1994	1995	1996 <sup>2)</sup>	1997	1998	1999
NTB										
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	-	-	-	-	-	-	-	-	-	-
小計	23,865	11,349	12,179	14,466	17,281	11,724	16,099	22,992	25,126	21,052
NTT										
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	-	-	-	-	-	-	-	-	-	-
小計	-	-	1,824	1,961	2,010	1,950	1,127	1,500	-	-
合計	23,865	11,349	14,004	16,426	19,290	13,674	17,226	24,492	25,126	21,052

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

注: \*1: "Flores Timur"はロンバタ県を含まない。また "Kupang"に州都Kupangは含まない

2: 1996年のNTT生産量はナマコを含まない

表2.5.19 1990～99年県別真珠貝生産量<sup>1)</sup>

単位:トン

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999 <sup>2)</sup>
NTB										
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	-	-	-	-	-	-	-	-	-	-
合計	17.1	18.7	20.2	26.0	26.8	21.4	22.7	25.8	23.2	0.538

出典: Buku Tahunan Statistik Perikanan NTB 1990-99

注: 1): NTTの真珠生産データは収集できなかった

2): 1999の数値のみ真珠重量

表2.5.20 1999年魚種別・県別汽水池養殖生産量(1/2)

		単位:トン				
		サバヒー	ボラ	ティラピア	その他	小計
NTB	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	-	-	-	-	-
小計		4,675.2	95.3	382.7	280.5	5,433.7
NTT	Sumba Barat	0.8		-	-	0.8
	Sumba Timur	1.0	0.2	-	-	1.2
	Manggarai	8.2	0.5	-	0.2	8.9
	Ngada	-	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
	小計		102.1	39.9	0.0	5.6
合計		4,777.3	135.2	382.7	286.1	5,581.3

表2.5.20 1999年魚種別・県別汽水池養殖生産量(2/2)

		単位:トン				合計	
		ウシエビ	ホワイト シュリンプ	その他エビ類	その他	小計	
NTB	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	-	-	-	-	-	-
小計		1,375.2	60.7	84.4	0.0	1,520.3	6,954.0
NTT	Sumba Barat	-	-	-	-	0.0	0.8
	Sumba Timur	-	-	-	-	0.0	1.2
	Manggarai	-	-	-	-	0.0	8.9
	Ngada	-	-	-	-	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
	小計		65.3	0.0	0.0	0.0	65.3
合計		1,440.5	60.7	84.4	0.0	1,585.6	7,145.0

出典: Buku Tahunan Statistik Perikanan NTB, and NTT, 1999

注: "Flores Timur"はレンバタ県を含まない。また"Kupang"に州都Kupangは含まない

表2.5.21 県別・規模別養殖漁家数

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

出典: Buku Tahunan Statistik Perikanan NTB, and NTT, 1999

注: "Flores Timur"はロンバタ県を含まない。また"Kupang"に州都Kupangは含まない

表2.5.22 県別・魚種別養殖漁家数

		単位:世帯			
		サバヒー	エビ類	サバヒー&エビ類	合計
NTB	Lombok Barat	-	-	350	350
	Lombok Tengah	-	-	-	-
	Lombok Timur	-	-	-	-
	Sumbawa	397	243	35	278
	Dompu	97	130	325	455
	Bima	2,192	542	15	557
	Mataram	-	-	-	-
	小計	2,686	915	725	1,640
NTT	Sumba Barat	2	-	-	-
	Sumba Timur	2	-	-	-
	Manggarai	102	-	-	-
	Ngada	50	5	-	5
	Ende	-	-	-	-
	Sikka	-	-	-	-
	Flores Timur	-	-	-	-
	Alor	2	-	-	-
	Kupang	22	-	-	-
	Timor Tengah Selatan	-	-	-	-
	Timor Tengah Utara	42	-	-	-
	Belu	70	-	-	-
	小計	292	5	0	5
	合計	2,978	920	725	1,645

出典: Buku Tahunan Statistik Perikanan NTB, and NTT, 1999

注: "Flores Timur"はロンバタ県を含まない。また"Kupang"に州都Kupangは含まない

表2.5.23 県別四半期当り養殖池生産量

		単位:トン				
		I	II	III	IV	合計
NTB	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					-
	小計	1,043.5	2,433.6	2,086.2	1,390.7	6,954.0
NTT	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
	小計	207.7	175.0	156.3	245.7	784.7
合計	1,251.2	2,608.6	2,242.5	1,636.4	7,738.7	

出典: Buku Tahunan Statistik Perikanan NTB, and NTT, 1999

注: "Flores Timur"はロンボタ県を含まない。また"Kupang"に州都Kupangは含まない。



表2.5.24 NTB・NTT県別養殖開発可能面積

	単位:ha			
	汽水池	海面	海藻	イクス
NTB				
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	-	-	-	-
小計	25,245		21,100	2,145
NTT				
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	-	-	-	-
小計	4,917	4,170	8,815	115
合計	30,162	4,170	29,915	2,260

出典: NTB; Program Pembangunan Daerah Sector Perikanan

NTT; Result of Questionnaire survey

表2.6.1 調査地域の各水揚げ地における水産物流通状況

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	Bajo/Sumbawa	Lab. Lalar	Taliwang	A, C	FF-1	-	-	20 - 30	587
	Alas	Lab. Mapin		BC/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		BC	Bajo	Lab. Alas	Alas	A	-	-	-	50 - 60	1,846
	Utan/Rhee	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
Piampang	Santong			BC/HL	Bugis/Bajo/Sasak/Sumbawa	Santong	Piampang, S. Besar	B-4, C	FF-2	-	10 - 20	50 - 60	8,048
Dompu	Kompu	Soro		BC/PS/GN/HL	Dompu/Bajo	Soro	Dompu	B-4, C	FF-4	80 (by boat)	-	20 - 30	2,599
	Paju	Jambu	Soroadu	PS/GN/HL	Dompu/Java	Soroadu	Dompu	A	-	-	-	5 - 10	374
	Huu	Rasabou	Manganee	PY/IN	Bajo/Bima/Dompu/Java	Manganee	Dompu	C	FS-8	-	-	-	1,830
	Huu	Huu	Finl	HL/PS	Dompu/Java	Huu	Dompu	A	-	-	-	20 - 30	-
Bima	Bima	Tanjung	Sumbawa	HL/GN	Bima	Tanjung	Bima (2 markets)	A	FF-3	-	-	20 - 30	508
	Rasanae	Kolo		BC/HL	Bima	Tg. Bima	Bima (2 markets)	A	-	-	-	20 - 30	-
	Sape	Bugis	Sape	BC/HL/BL	Bugis/Bima/Bajo	Sape	Bima, Sape, Wawu, Denpasar	A, C	FF-1	4	-	50 - 60	11,799
	Rangle	Maworada	Rompo	BC/PS/BL/HL	Bima/Bugis	Rompo	Bima, Rende, Ngali, Tente	A, B-4	FF-3	25 (by boat)	-	20 - 30	7,074
Wanggarai	Wborong			PS/GN/HL	Ende/Wanggarai/Sumba	Wborong	Bajawa, Ruteng	A, B-1	-	-	-	20 - 30	830
	Reo	Pobek	Mondo	GN/HL	Bugis/Bajo/Bima	Reo	Ruteng	A, B-1	-	-	-	5 - 10	1,038
	Komodo	P. Mesa		BC/HL	Bajo	P. Mesa	Lab. Bajo	A, C	FF-2	-	-	-	-
	Komodo	P. Seraya B.		HL/TR	Bajo	P. Seraya B.	Lab. Bajo	C	FF-1	-	-	-	-
	Komodo	Lab. Bajo		BC/HL	Bajo		Lab. Bajo, Ruteng, Denpasar	A, B-1	FF-5	-	10 - 20	20 - 30	-
Ngada	Aisesa	Nangadero	Marapakol	PS/BC/HL	Bajo/Buton/Selayar/Ngada	Marapakol	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/Wanggarai/Java	Aimere	Bajawa, Ruteng	A, B-2	-	-	-	10 - 20	464
Ende	Ende	Wbongawani		PY/GN/BL	Ende	Wbongawani	Ende (3 markets)	B-3	-	20	80 - 150	-	2,112
	P. Ende			HL/GN	Ende	Wbongawani	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	5,098
	Alak	Muring	Muring	PS/LM	Bugis/Bajo	Muring	Maumere (2 markets)	B-2	-	-	-	-	-
	Alak	Muring	Mangature	HL	Bugis/Bajo	Mangature	Maumere (2 markets)	A	-	-	-	10 - 20	-
	Talibura	P. Pamana		SL	Buton		Jakarta	C	-	1 (KCBS)	-	-	-
	Talibura	P. Bosar		HL/GN	Bugis/Bajo/Sikka	P. Bosar	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	Baliwerang	A, C	-	1 (Mitrans)	-	10 - 20	2,331
	Adonara T.	Lamahara		BC/PS	Bajo/Lamaholot	Lamahara	Baliwerang, Larantuka	A	-	-	-	50 - 60	30 - 50
	Larantuka	16 villages		BC/GN/PL	Bajo (Sj)/Lamaholot (11)	16 sites	Larantuka, Maumere, Ende	A, B-2, C	-	(Mitra+Okishin)	-	80 - 100	2,886
Labata	Nubatukan	Lewoleba		BC/HL	Lamaholot	Lewoleba		A	-	-	-	20 - 30	243
	Nubatukan	Lamaiera		HR/HL/GN	Lamaholot	Lamaiera	Interior villages	A	-	-	-	50 - 60	-
	Omesur.	Balauring		TR/HL/GN	Bajo/Buton/Lamaholot	Balauring	Lewoleba, Larantuka	A, C	-	1 (Okishin)	-	20 - 30	295

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

(2) Fish Collectors/Agents: LF:Live 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's 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

(5) Fishing seasons

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

(6) Fishing seasons

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

表2.6.2 調査地域の魚業従業者ならびに水産会社の状況

(1) Fish Transportated 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/Hamadai
	Alas	Tg. Alas	PT. Nini Rejeki	Alive	150	24	3.6	Denpasar	Aerated tank	By Truck	Kerapu/Senu
				Alive	500 pcs.	100	50,000pcs	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
Dompus	H'uu	Rasabau	Individual collector	Fresh	600	200	120	Surabaya (via. Dompus)	Insulated box with ice	By Truck	Banana shrimp (volume at head-on)
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	Naworada	Individual collector	Fresh	100	50	5	Denpasar	Insulated box with ice	By Truck	Kerapu/Kakap
Manggarai	Komodo	Lab. Bajo	Individual collector	Fresh	500	50	25	Denpasar	Insulated box with ice	By Truck	Kerapu/Kakap
			Individual collector	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	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

出典：本調査団による調査結果



表2.6.4 現地調査時点の魚価 (2000年6、7月)

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

District	Sub-District	Town Area/	Sub-Village	Price Level	Price of Fresh Fishes by Species (Rp./kg)												
					Tuna マグロ	Morin カジキ	Cakarang カンゾウ	Tongkol ツノメ	Layang ムロアジ	Teabang イワシ	Selar メアジ	Kuco カイワリ	Kwee マヒメ	Kembung クマツ	Teri hitam 黒チリ	Lure キビナゴ	Teri Nagi シラス
(Sumbawa)																	
Sumbawa	Piampang	Il. Santong		Beach					4,000					4,500			
	Sumbawa	S. Besar	Pasar Saketa	Retail						5,000				10,000			
	Alas	Lab. Alas		Beach						4,000					4,000		
	Dumbo	Sung	Pasar Usum	Retail		10,000		10,000	7,500		5,000		4,000	10,000			10,000
	Kumpo	Sung		Beach				4,500									
	Paze	Lambu	Soruanu	Beach		5,000	7,500	2,500									
	H'lu	H'lu	Elin	Retail				5,000					4,000				
	Hima	Hima	Pasar Baru	Retail							10,000					20,000	10,000
	Rangir	Mawada		Beach						1,000				5,000		10,000	
	Saps	Bukla		Beach	7,000			5,000				6,000	3,750				
(Flores)																	
Manggarai	Mborong			Retail						2,000			4,000				
	Roteng			Retail						4,000						4,000	2,000
	Reo	Bobek	Mondo	Beach													
	Lembar	Mongalii	Jambatega	Beach				2,500		2,000							
	Kowodo	P. Mosa		Beach													
	Kowodo	P. Mosa		Beach													
	Ngada	Alissa	Mangadero	Marapukol	Beach	Small pelagics: Rp. 1,500 3,000		Demersal: Rp. 5,000 2,000									
		Surus	Margabasa		Beach	Small pelagics: Rp. 2,000 4,000											
		A. mero	A. mero I.		Beach		3,500	3,500		2,500			5,000			7,500	
	Ende	Mhongkwanj		Retail		6,000	8,000	5,500	5,000		4,500						
	Ende	Potulando		Retail		10,000							5,000				7,000
	Sikka	Mamenzu	Kalimati	Retail		10,000	7,500		5,000					10,000			10,000
	Alok	Muring	Mangalura	Beach		3,000											
	Italibura	Celiluna		Retail							10,000						
	Pada			Beach				2,000	2,000		2,000			10,000			
	Flores Timur	Larantuka	Pasar Usum	Retail					5,000			5,000		5,000			
		On toso		Retail					5,000					5,000			5,000
		Adonara I.	Lawa-Nara Jaya	Beach			3,000	3,000	2,500					5,000			3,000
	Lembata	Mobalukan	Lewolaba Utara	Retail					3,500		3,500						
		Onesari	Baiauring	Beach			1,200	2,000		1,000	2,000						
Reference:																	
Banyuwangi		Pasar Banyuwangi		Retail		10,000		5,000	4,000		4,000						
Dempasar		Pasar Korembang		Retail		17,000				7,000	9,000			10,000			
		Pasar Kumbassar		Retail													



(2) Price of Fish for Export

A. EX-GO-DOWN PRICE OF FRESH FISH AT SAPE

Quality	Fresh Fish (to Denpasar via Bima)				Dried fish (to Jakarta/Surabaya)			
	Korup	Senu halus	Kakap merah	Tenggiri	Hamadal	Layang	Lure	Teri Mas
for Export	250 - 500g up to 1 kg	500g up to 1 kg	1 kg up to 5 kg	1 kg up to 5 kg	1 kg up to 5 kg	1 kg up to 5 kg	1 kg up to 5 kg	1 kg up to 5 kg
for Local	25,000	31,000	14,000	8,000	15,000	5,000	15,000	25,000

- 注: 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
Tigarr	head-on	95,000	10-30 pcs

- 注: 1) Buying price from fishermen at Mangrove 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

Species	Size Classification			
	Senu	Hamadal	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 to 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	Krist	Korapu	Senu	Kakap merah	Hamadal
Size			0.4 - 1.2 kg	1.2 kg up	0.3 - 2 kg
Buying Price	27,000	33,000	42,000	15,000	27,000
Price in Denpasar	40,000	49,000	45,000	37,000	32,000

- 注: 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 SKIPJACK BY FISHING COMPANY IN LARANTUKA

Size	Rp/kg	Size	Rp/kg
2.7 kg up	2,300	upto 2.2 kg	1,700
1.2 - 2.7 kg	1,800		
upto 1.2 kg	1,200		

E. BUYING PRICE OF ALIVE FISH FROM FISHERMEN

Location	Species	Size	Rp/kg
Marapokot	Korapu		50,000
S. Besar	Senu		50,000
	Korapu tikus		150,000
	Korapu tiger		40,000
Denpasar	Korapu tikus		300,000
	Korapu lip	0.5 - 1.4kg	100,000
		4 kg up	50,000

- 注: Korapu tikus/senu: fixed price by piece (1.36kg up)  
 Korapu tiger: price by kg (up to 3kg), price by piece (3kg up)

Size	Species		
	Local Name	Character	Scientific Name
0.5 - 0.45 kg	Mepoleon		Chelinus undulatus
0.45 - 1.0kg	Korapu tikus		Chromileptis altivels
1.0 kg up	Korapu tiger	small spot	Eupomphelus taeniata
	Korapu hitam	large spot	Eupomphelus macra

F. BUYING PRICE OF ALIVE FISH AT DENPASAR EXPORTER

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

- 注: 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 Mas	A	15,000	
Layang	A	3,000	
	B	2,000	
	C	1,000	

- 注: Classification by quality (Dry products are choicer with brown color)  
 Durability: about 3 months (boiled/dried), 15 days (salted/dried)  
 Major collecting areas: Iriyan Jaya, Madura, Flores, Sulawesi Tenggara and Kalimantan

表2.6.5 水産物の主な輸送方法・所要時間・気温とコスト

(1) For local trade		Origin Site	Approx. Distances(km)	Means of Transport	Required hours	1/25000 Million Cost per metric ton	Box size(kg/box)	Remarks	
Sumbawa	Lab. Sumbawa	P. Matang	001	Boat	4.0	5,000	with box	15	
	S. Bessar	Lab. Sumbawa	001	Boat	0.5	1,000	with box	15	
	Ulu	Lab. Bala	001	Boat	0.5	3,000	with box	15	
	Ara	P. Borgan	001	Boat	1.5	1,500	with box	15	
	Dampu	Lab. Lalor	Lab. Lalor	001	Boat	0.5	4,000	with box	15
		Dempu	SPT/KABUNO	001	Truck Bus	0.5	2,500	with box	15
	Bina	Lab. Bina	Lab. Bina	001	Boat	0.6	4,500	with box	15
		Lab. Bina	Lab. Bina	001	Boat	1.5	2,500	with box	15
		Lab. Bina	Lab. Bina	001	Truck Bus	0.1	1,000	with box	25
		Lab. Bina	Lab. Bina	001	Truck Bus	0.1	1,000	with box	25
Air	Kolo	Boat/Bus	0.5	1,500	1,000	1,000	35		
Air	Solo	Boat	2.0	3,000	1,500	1,500	25		
Air	Matocada	Boat	2.0	4,000	5,000	5,000	25		
Mangrove	Kutek	Almera	001	Boat	2.0	300,000	with box	25kg x 20	
	Lab. Sajo	Lab. Sajo	001	Truck	4.0	250,000	with box	100kg x 11	
Saka	Lab. Sajo	Lab. Sajo	001	Boat	4.0	12,000	with box	25	
	Lab. Sajo	Lab. Sajo	001	Truck Bus	3.0	5,500	with box	40	
Mada	Lab. Sajo	Lab. Sajo	001	Truck Bus	3.0	125,000	with box	100kg x 11	
	Lab. Sajo	Lab. Sajo	001	Boat	1.5	10,000	with box	50	
Ende	Lab. Sajo	Lab. Sajo	001	Boat	2.5	10,000	with box	38	
	Lab. Sajo	Lab. Sajo	001	Boat	1.0	150,000	with box	25kg x 20	
Saka	Lab. Sajo	Lab. Sajo	001	Boat	1.0	3,000	with box	33	
	Lab. Sajo	Lab. Sajo	001	Boat	4.0	100,000	with box	50kg x 10	
Forest Tour	Lab. Sajo	Lab. Sajo	001	Truck	1.2	23,000	with box	1,000	
	Lab. Sajo	Lab. Sajo	001	Truck	1.2	23,000	with box	43	
Labalia	Lab. Sajo	Lab. Sajo	001	Boat	0.3	1,500	with box	32	
	Lab. Sajo	Lab. Sajo	001	Boat	0.3	1,500	with box	25	
Labalia	Lab. Sajo	Lab. Sajo	001	Boat	1.0	60,000	with box	1,000	
	Lab. Sajo	Lab. Sajo	001	Boat	1.0	6,500	with box	25kg x 20	
Labalia	Lab. Sajo	Lab. Sajo	001	Boat	1.0	10,000	with box	80	
	Lab. Sajo	Lab. Sajo	001	Boat	5.0	12,000	with box	Charterred by 10 years	

(2) For inter-island trade		From	To	Transport cost	Products
Sea	Larantuba	Lakarta	US\$100/ton	Foreign fish	
Sea	Sipa	Denpasar	Rp.500/kg	Dried fish	
Land	S. Bessa	Denpasar	Rp.5,000/box (60kg)	Fresh fish	
Air	Lab. Bala	Denpasar	Rp.4,150/kg	Fresh fish	

(3) For Export		From	To	Transport Cost	Products
Sea	Larantuba	Lab. Sajo	22 year/yr	Foreign fish	
Air	Denpasar	Moer Kook	US\$1.60/kg. City Par.	Foreign fish	
Air	Denpasar	Yahai	US\$1.45/kg. 500kg sp	Fresh fish	
Air	Denpasar	Yahai	US\$1.35/kg. 1,000kg sp	Fresh fish	

(4) Price of Fish Containers		Size	Capacity	Price/ton	Remarks
Cool box	Styrofoam	30x50x30cm	45	17,500	used in Lab. Sumbawa
	Styrofoam	30x50x30cm	60	15,000	used by collectors in Lab. Sajo
Fish container	Styrofoam	40x28x28cm	75	12,500	used by fish retailer at Denpasar
	Styrofoam	50x40x38cm	60	15,000	used by fish retailer in Bali
Fish container	Styrofoam	40x38x38cm	100	21,000	used by exporter in Bali
	Styrofoam	50cm dia.	100	25,000	at Sajo
Fish container	Styrofoam	50cm dia.	100	25,000	at Sajo
	Styrofoam	50cm dia.	100	25,000	at Sajo

(5) Price of Fuel (As of July 2001)		Distict	Gasoline	Diesel	Light Oil
Labalia	Balung		2,500	1,500	1,500
	Elorok	Keluteng	3,000	1,500	1,000
Saka	Larantuba	Pertamina	900	900	1,000
	Mitramas	Pertamina	1,100	900	500
Mada	Uluwatu	Pertamina	1,100	1,500	1,100
	Mangrove	Pera	1,250	1,250	1,250
Mangrove	Riang	Pera	1,200	1,200	1,200
	Almera	Pera	900	900	900
Bina	Lab. Bina	Pertamina	1,000	1,000	1,000
	Lab. Bina	Pertamina	1,300	1,300	1,300
Dampu	Lab. Bina	Pertamina	1,300	1,300	1,300
	Lab. Bina	Pertamina	1,300	1,300	1,300
Sumbawa	Lab. Bina	Pertamina	1,300	1,300	1,300
	Lab. Bina	Pertamina	1,300	1,300	1,300

Pertamina prices for general use: gasoline Rp.1,250/L, diesel Rp.900/L  
 Pertamina prices for industrial use: diesel Rp.1,200/L



表 2.6.6 調査地域における氷供給状況

A. 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. Bajawa (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/Kempu	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)	

B. 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. PT. Osayama	Block Ice 15kg	N/D	18,000 kg	For company's own and contracted fishing boats only. For company's contracted fishing boats only.
			Block Ice 30kg	250	1,500 kg	
Bima	Bima	PT. Buana Delta	Block Ice 25kg	300	7,500 kg	Mainly for fishing boats in Sape (Ice: 250 kg/trip/boat). Mainly for fishing boats in Bima (Ice: 150 kg/trip/boat).
			Block Ice 5kg	300	1,000 kg	
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	

Reference:

- 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 Lab. Lombok, and Rp.200/kg (30kg block) at Denpasar.
- 2) Ice for fish collectors are supplied from exporters in Denpasar.

表2.6.7 調査地域の主要水産小売市場の現況

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	Max.	Male	Female	Total	Male						Female
(Sumbawa)																				
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.
Dempu	Dempu	Dempu	Pasar Dempu	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, Sere, Wawa	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																
(Flores)																				
Manggani	Ruteng		Pasar Umum	06:00-18:00	In shed	Lab, Bajo, 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.
Ngadi	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	Mhongawani	Pasar Mbongawani	06:00-12:00	Open air	Ende	80	0	80	200	0	0	0	100	0	8,000	20,000	3,960	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, Nangafure	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	25	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	Lerantika		Pasar Umum	06:00-18:00	Passage	Lerantika	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	Alonga, Soler	0	5	5	20	0	0	0	70	350	1,400	221	0.6	Brought back to village for dried fish.	
Reference:																				
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	Korawa	Pasar Korawa	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	0	100	3,000	6,000	1,350	3.8	Kept in cool box with ice (100%) even during selling.
	Kuta	Kodonganan	Pasar Kodonganan	06:00-18:00	In shed	Denpasar	0	60	60	100	0	0	0	0	100	6,000	10,000	2,520	7.0	Kept in cool box with ice (100%) even during selling.

表 2.7.1 タイプ毎の漁港数(州別)

No.	Province	Type A	Type B	Type C	Type D	
					APBN	APBD
1	Dista 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

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

注 : APBN; National Budget

APBD; Provincial/District Budget

表 2.7.2 NTB・NTT両州内の漁港・PPI・TPI(県別)

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	Labuhan Lombok	Tanjung Luar	Batunampar, Labuhan Haji, Labuhan Pandan	--
	Sumbawa	--	Labuhasn Mapin, Teluk Santong	Labuhan Lalar, Labhan Sumbawa, Pulau Bungin, Labuhan Ijuk	Labuhan Potontano, Labuhan Alas, Labuhan Bajo, Labuhan Terata, Labuhan Jontal, Labuhan Sangoro, Labuhan Jambu,
	Dompu	--	Solo Kempo, Soroadu	Laasi, Nangananae, Waworoi, Mbawi, Labuhan Jambu,	Hu'u
	Bima	--	Sape	Waworada, Tanjung Bima, Pulau Bajo, Bonto Kape	--
	NTT	West Sumba	--	--	--
	East Sumba	--	--	--	--
	Manggarai	--	Lasuhan Bajo	--	--
	Ngada	--		Nangadero, Aimere	--
	Ende	--	Ende (Paupanda)	--	--
	Sikka	--	Maumere (Nangahure)	--	--
	East Flores	--	Larantuka (Oka)	--	--
	Lembata	--	--	--	--
	Alor	--	Kalabahi	--	--
	Kupang	Kupang	--	--	--

出典: Map of Fishing ports and Fish Landing Places, Indonesia 2000, を修正 (Dinas Perikanan NTBに聞き取り)

注: 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

表2.8.1 県別漁民の宗教

	単位:人		
	イスラム教	キリスト教	合計
NTB			
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
NTT			
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
Total	855	147	1002

出典:JICA調査団社会経済調査

表2.8.2 主婦の就労状況

	単位:人						合計
	農業	漁業	事務	その他	無職	無回答	
NTB							
Lombok Barat	0	4	0	2	0	44	50
Lombok Tengah	0	5	0	0	0	15	20
Lombok Timur	0	8	1	5	56	0	70
Sumbawa	2	84	0	26	9	9	130
Dompu	4	35	0	3	14	6	62
Bima	7	47	1	16	53	6	130
小計	13	183	2	52	132	80	462
NTT							
Alor	13	39	1	3	3	1	60
FlorsTimur	10	61	1	3	4	1	80
Sikka	14	58	1	4	3	0	80
Ende	1	2	0	75	0	2	80
Ngada	18	6	0	18	0	8	50
Manggarai	2	41	0	7	0	20	70
Sumba Barat	12	2	0	1	14	1	30
Sumba Timur	0	15	0	0	44	1	60
Kupang	0	7	0	1	22	0	30
小計	70	231	3	112	90	34	540
合計	83	414	5	164	222	114	1002

出典:JICA調査団社会経済調査

表 2.8.3 県別漁家世帯の平均年収、1人あたり年収及び1人あたり月収

県名	漁村名	サンプル数	世帯平均 年収 (Rp/年)	世帯平均 家族数 (人/世帯)	1人当 り年収 (Rp/人/年)	1人当 り月収 (Rp/人/月)
西ロンボク	アンペナン	30	5,200,000	4.2	1,238,095	103,175
	カラン	20	3,720,000	4.9	759,184	63,265
中央ロンボク	クタ	20	3,000,000	4.4	681,818	56,818
東ロンボク	タンジュン・ル	20	2,520,000	4.5	560,000	46,667
	L.ロンボク	50	2,832,000	4.3	658,605	54,884
スンバワ	L.ララール	25	9,480,000	4.0	2,370,000	197,500
	マピン	30	10,000,000	5.0	2,000,000	166,667
	L.スンバワ	50	4,584,000	4.0	1,146,000	95,500
	サントン	25	8,088,000	3.5	2,310,857	192,571
ドンブ	ケンボ	32	9,412,500	5.0	1,882,500	156,875
	ナンガナエ	30	6,340,000	4.0	1,585,000	132,083
ビマ	ビマ	50	4,800,000	3.0	1,600,000	133,333
	サベ	50	7,128,000	5.0	1,425,600	118,800
	ワオラダ	30	8,800,000	5.0	1,760,000	146,667
西スンバ	ワイケロ	20	8,040,000	5.2	1,546,154	128,846
	ルア	10	6,060,000	5.0	1,212,000	101,000
東スンバ	ワインガブ	40	4,245,000	5.1	832,353	69,363
	プライサル	20	6,630,000	5.7	1,163,158	96,930
マンガライ	ナンガリリ	20	3,270,000	5.8	563,793	46,983
	L.バジョ	30	6,880,000	4.6	1,495,652	124,638
	レオ	20	4,320,000	4.4	981,818	81,818
ガダ	マラボコト	30	4,300,000	4.6	934,763	77,899
	アイメレ	20	1,500,000	5.1	294,118	24,510
エンデ	P.エンデ	30	2,080,000	5.2	400,000	33,333
	エンデ	50	2,508,000	5.5	456,000	38,000
シッカ	バガ	30	5,520,000	3.5	1,577,143	131,429
	マウメレ	50	5,705,882	4.3	1,311,628	109,302
東フローレス	ラランツカ	50	5,772,000	3.6	1,603,333	133,611
レンバタ	レオレバ	30	5,940,000	3.8	1,563,158	130,263
アロール	バラヌサ	20	5,520,000	4.0	1,380,000	115,000
	カラバヒ	40	4,770,000	3.6	1,325,000	110,417
クバン	ロティ	15	12,000,000	3.6	3,333,333	277,778
	サブ	15	2,480,000	4.1	604,878	50,407
1人あたり平均年収	-	-	-	-	1,289,573	-
耕作地 0.5ha 以下の 零細農民の全国平均 年収(Rp/年)	-	-	-	-	1,631,410	-

出典:1) Household survey in the socio-economic survey of major fishing villages conducted by JICA Study Team during June - July 2001

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

表 2.8.4 漁村別の平均年間操業日数および漁業操業当たりの所得と費用

単位：Rp./操業

地域名	漁村名	平均年間操業 日数(日/年)	売上 (Rp./操業)	費用 (Rp./操業)	実所得 (Rp./操業)	利益率 (%)
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	36,150	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
	Nanganac*	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	88,600	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

出典：Household survey in the socio-economic survey of major fishing villages conducted by JICA Study Team during June - July 2001

注：\*はスンバワ島東部以東に位置するインド洋に面した漁村

表 2.8.5 漁村別の動力船と無動力船との所得格差

県名	漁村名	世帯平均年収 (Rp10 <sup>3</sup> /年)	動力化率 (%)	世帯年収 (Rp10 <sup>3</sup> /year)		所得比
				動力船	無動力船	
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
Lombok Te.	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
	Nanganane	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.	Waikelolo	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.	—
Manngarai	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

出典：Household survey in the socio-economic survey of major fishing villages conducted by JICA Study Team during June - July 2001



表2.8.6 NTB、NTTにおける女性を対象とした貸付の例

Districts	Location	Source of Fund	Beneficiaries	Loan Amount	Repayment	Uses of loan	Remarks
Sumbawa	Sanglong	Arisan Group	32 members	20,000 Rp/month	No	For her family	1 group in the dusun
Sumbawa	Kalibaru	Arisan Group	10 members	10,000/D every 10 Ds	No	For her family	-
Sumbawa	Labunn Bajo (Utian Rhee)	P2K	5 members	500,000 Rp/group 100,000 Rp/member	12,000Rp/ people×10M	Capital of making cakes	Now this system doesn't work
Sumbawa	Bungin (Alas)	Individual	-	20,000 Rp/Day	-	For her family	-
Sumbawa	Labuan Lala (Tariwan)	Individual	-	N.A.	-	For her son	-
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 of 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 of 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 of getting fish and the cost of living	In Reality Personal Loan
Bima	Bugis (Sape)	Bank	Individual	N.A.	5Ys	Capital of fishing boat	-
Bima	Ronppo (Wuorada)	Arisan Group	40 membes	25,000 Rp/Week	No	Capital of 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	Total5,784,825RP(18Ms) Kan. Kec→Bank	Capital of getting fish	Name of the group "Suasana Baru" In Reality Personal Loan
Sikka	Wuring (Alok)	Government	Family Base	10,000,000~ 20,000,000Rp/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)	Dusa 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	-

注: Socio-Economic Survey in Fishing Communities in NTB and NTT, 2001. JICA Study Team

表2.9.1 調査対象地域におけるKUD Mina の数および活動状況

州/県	KUD Mina 数	組合員数	財務的に独 立したKUD	活動状況	
				活発	無活動
<b>NTB</b>	<b>15</b>	<b>3,231</b>	<b>4</b>	<b>6</b>	<b>5</b>
1) K. Bima	3	1,120	0	2	1
2) K. Dompu	3	690	1	2	0
3) K. Sumbawa	5	106	0	1	4
4) K. Lombok Barat	1	258	1	0	0
5) K. Lombok Tengah	1	289	1	0	0
6) K. Lombok Timur	2	768	1	1	0
<b>NTT</b>	<b>13</b>	<b>1,131</b>	<b>0</b>	<b>11</b>	<b>2</b>
1) K. Alor	3	424	0	3	0
2) K. Belu	1	52	0	1	0
3) K. Ende	1	31		1	0
4) K. Flores Timur	1	-	0	1	0
5) K. Kupang	2	556	0	1	1
6) K. Manggarai	1	-	0	1	0
7) K. Ngada	1	-	0	1	0
8) K. Sikka	1	-	0	1	0
9) K. Sumba Barat	-	-	-	-	-
10) K. Sumba Timur	2	68	0	1	1
合計 (NTB +NTT)	28	4,362	4	17	7
インドネシア全体	751	446,253	100	447	204

Source: Laporan Evaluasi KUD Mina, DGCF

表 2.9.2 調査対象地域における漁業共同組合の現況(訪問調査)

組合名および所属県	組合員数	資本 (百万ルピア)		活動			備考
				融資	訓練	販売業	
1. Koperasi Nelayan Mina Geleta (Lewoleba Utara, Nubatukan Lembata-NTT)	84	100	/*1	#	-	##	漁具および餌料用活魚の販売
2. Koperasi Nelayan Insannadasu (Labahara Jaya, Adonara Timur, Flores Timur -NTT)	170	70	/*1	#	-	##	エンジン・スペアパーツの買付・販売
3. Koperasi Nelayan Batumaja (Sagu, Adonara Timur, Flores Timur -NTT)	48	NA	-	-	-	##	エンジン・スペアパーツの買付・販売、魚の販売
4. Koperasi Usaha Baru (Paga, Paga, Sikka -NTT)	70-80	NA	/*1	#	-	##	燃料油の買付・販売
5. Koperasi Nelayan Mina Bahari (Ende - NTT)	150	NA	/*2	-	-	-	無活動
6. Koperasi Perikanan (Bugis, Sape, Bima-NTB)	87	NA	/*3	#	-	-	融資のみ
7. KUD Mina Teluk (Waworada, Rangle, Bima -NTB)	184	100	/*1	#	-	##	売店運営
8. KUD Mina Uni (Soro, Kempo, Dompu -NTB)	440	NA	-	#	-	##	燃料油の買付・販売、電気料金の徴収、売店の運営
9. Koperasi Sama Kai (Jambu, Paju, Dompu -NTB)	NA	NA	-	-	-	##	イセエビの集荷・販売
10. KUD Karya Utan (Lab. Bajo, Utan, Sumbawa -NTB)	200	25	/*1	#	-	##	WARTEL (公衆電話サービス)

注:

\*1, 初期資本は県組合事務所から年利12%の融資を受けた

\*2, 初期資本は地元銀行より融資を受けた

\*3, 資本は民間の県組合事務所を通じ真珠養殖会社から融資を受けた(年利0.8%返済期間1年間)

#, 一般的な融資額は0.5~1百万ルピア、月利は0.6~3%

##, 販売品目は少なく、組合員のニーズを満たしていない

融資: メンバーの投資・運転資金のための融資

訓練: 新しくより良い技術を習得するための技術普及サービス

販売業: 漁獲物流通、氷・燃料等の販売、日常品の販売

表2.9.3 調査対象地域におけるクロンポックの数と種類

州/グループのタイプ	数
<b>NTB州</b>	
1) 漁民グループ	364
2) 女性グループ	68
3) 汽水養殖グループ	68
4) 加工グループ	28
5) その他	4
小計	532
<b>NTT</b>	
1) 漁民グループ	328
2) 淡水養殖グループ	118
3) 漁民青年グループ	84
4) 汽水養殖グループ	51
5) 加工グループ	38
小計	619

Source: Annual reports of Dinas Perikanan Prop.

表 2.11.1 対象地域における県別の経済・財務状況

	NTB			NTT						
	Sumbawa <sup>3)</sup>	Dompu	Bima	Manggarai	Ngada	Ende	Sikka	Flores(T) <sup>4)</sup>	Lembata <sup>4)</sup>	
GRDP in 1999	Rp. trillion, current price	1.28	0.47	1.04	0.51	0.26	0.31	0.32	0.26	0.08
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 <sup>1)</sup> (%)	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 <sup>2)</sup>		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		3.35	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, ownershop & 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	year	2000	1998/1999	1998/1999	1999/2000	1998/1999	1998/1999	1999/2000	1998/1999	1998/1999
Revenue	Total (Rp. million)	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 (Rp. million)	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

出典:

District statistics,1999

注:

1) constant price base

2) 1999 data compiled by JICA Study Team

3) Development expenditures by sector are calculated by JICA Study Team based on the Budget reviewed.

4) 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.