

FINAL REPORT
THE DEVELOPMENT STUDY ON THE
NATIONWIDE FERRY SERVICE ROUTES
IN THE REPUBLIC OF INDONESIA
APPENDIXES

March 1993



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PART 1

1. Table and Figure Mentioned in the Main Report

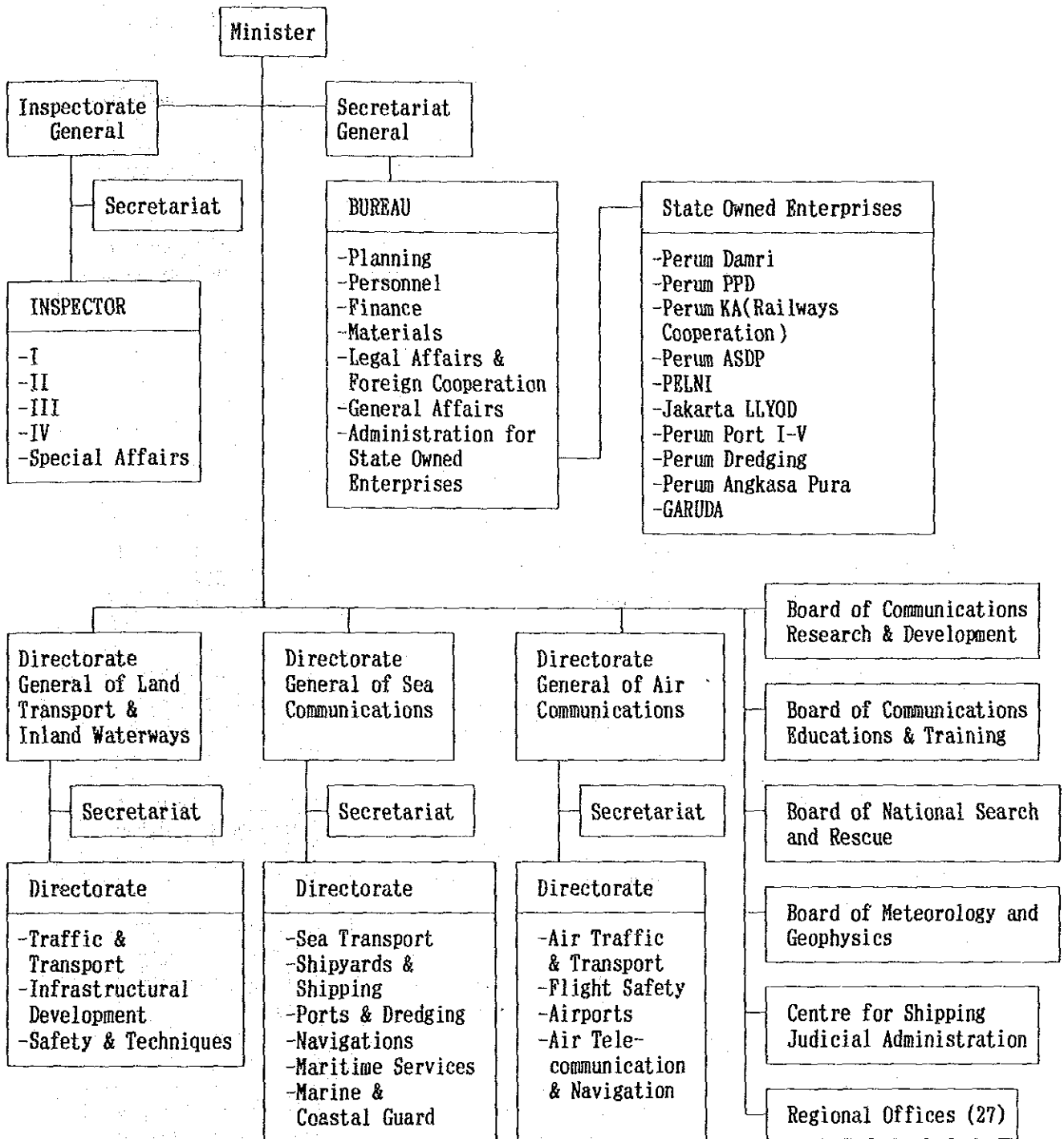


Fig. 1-2-1A Organization Chart of Ministry of Communications

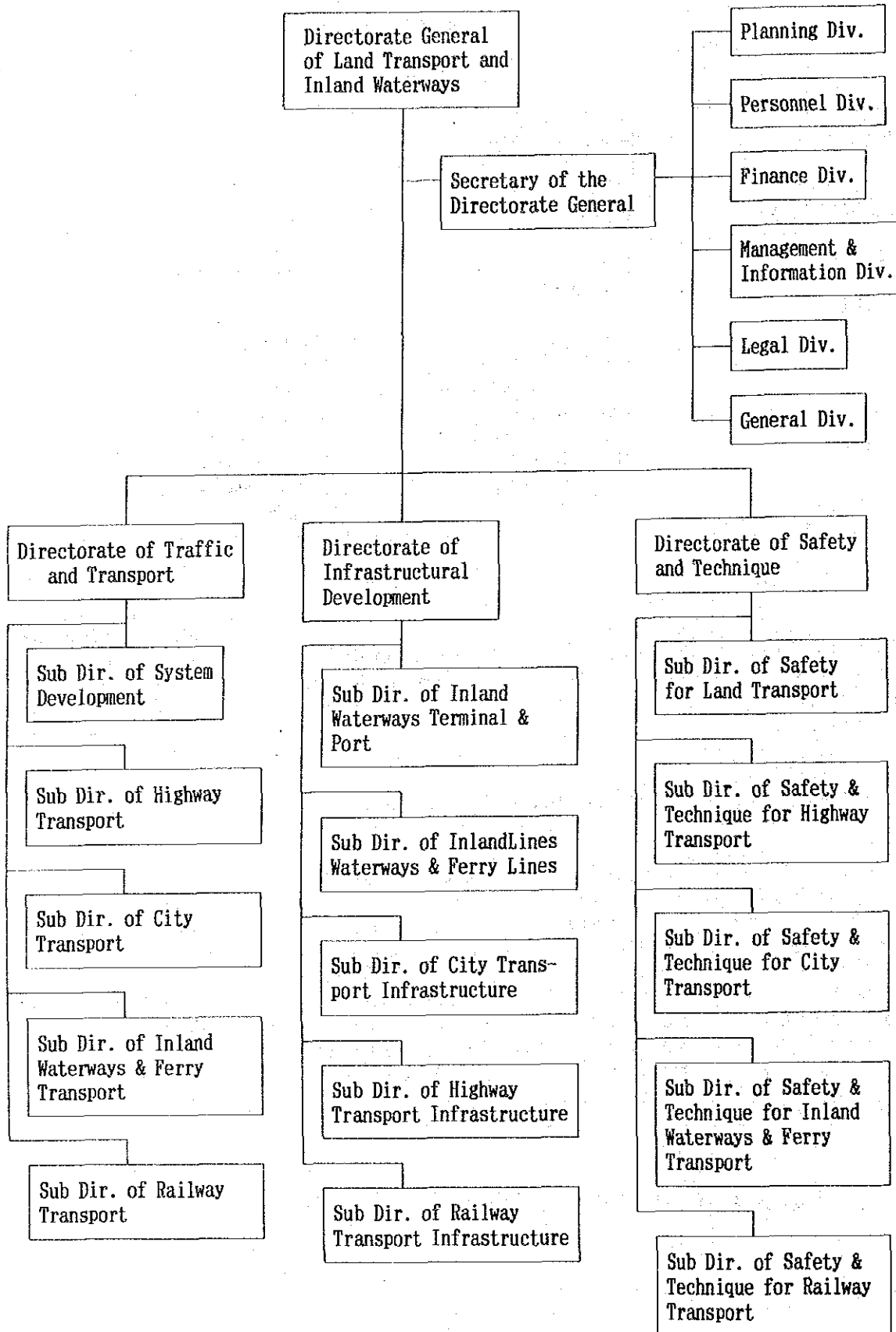


Fig. 1-2-2A Organization Chart of DGLT

Table 1-3-1A Management Body of Ferry Transportation

No	Route	Shipping		Terminal	
		PASDP	Private	MOC	PASDP
1	Saban-Malahayati	○		○	
2	Melaboh-Sinabang	○		○	
3	Ajibata-Tomok		○	○	
4	Jambi City	○		○	
5	Jambi-Kualatungkal	○		○	
6	Palembang-Kayuarang		○	○	
7	Bangka-Belitung	○		○(1)	
8	Merak-Bakaheuni	○	○		○
9	Cilacap-Kalipucang	○	○	○	
10	Ujung-Kamal	○	○		○
11	Jankar-Kalianget	○		○	
12	Ketapang-Gilimanuk	○	○		○
13	Padangbai-Lembar	○	○		○
14	Lombok-Tano	○	○		○
15	Sape-Komodo-Labuh.	○		○	
16	Kupang-Larantuka	○		○	
17	Kupang-Rote	○		○	
18	Kupang-Kalabahi	○		○	
19	Kupang-Sabu	○		○	
20	Lar.-Waiw.-Lewol.	○		○	
21	Pontianak City	○		○	
22	Kartiasa River Cr.	○		○	
23	Semuntai River Cr.	○		○	
24	Sekura River Cr.	○		○	
25	Merauke-Bupul	○		○	
26	Penajam-Balikpapan	○	○	○	
27	Bajoe-Kolaka	○	○	○	
28	Bira-Pamatata	○		○	
29	Toroburu-Tampo	○		○	
30	Baubau-Tolandona	○		○	
31	Luwuk-Sabang-Salakan	○		○	
32	Poka-Galala	○		○	
33	Hunimua-Waipirit	○	○	○	
34	Sorong-Jeffman	○		○	
35	Sibolga-Gn.Sitoli	○	○	○	

Note: PASDP; Perum ASDP

(1); Terminal facilities belong to DGSC (Directorate General Sea Communications)

MOC; Regional office of MOC(Ministry of Communications)

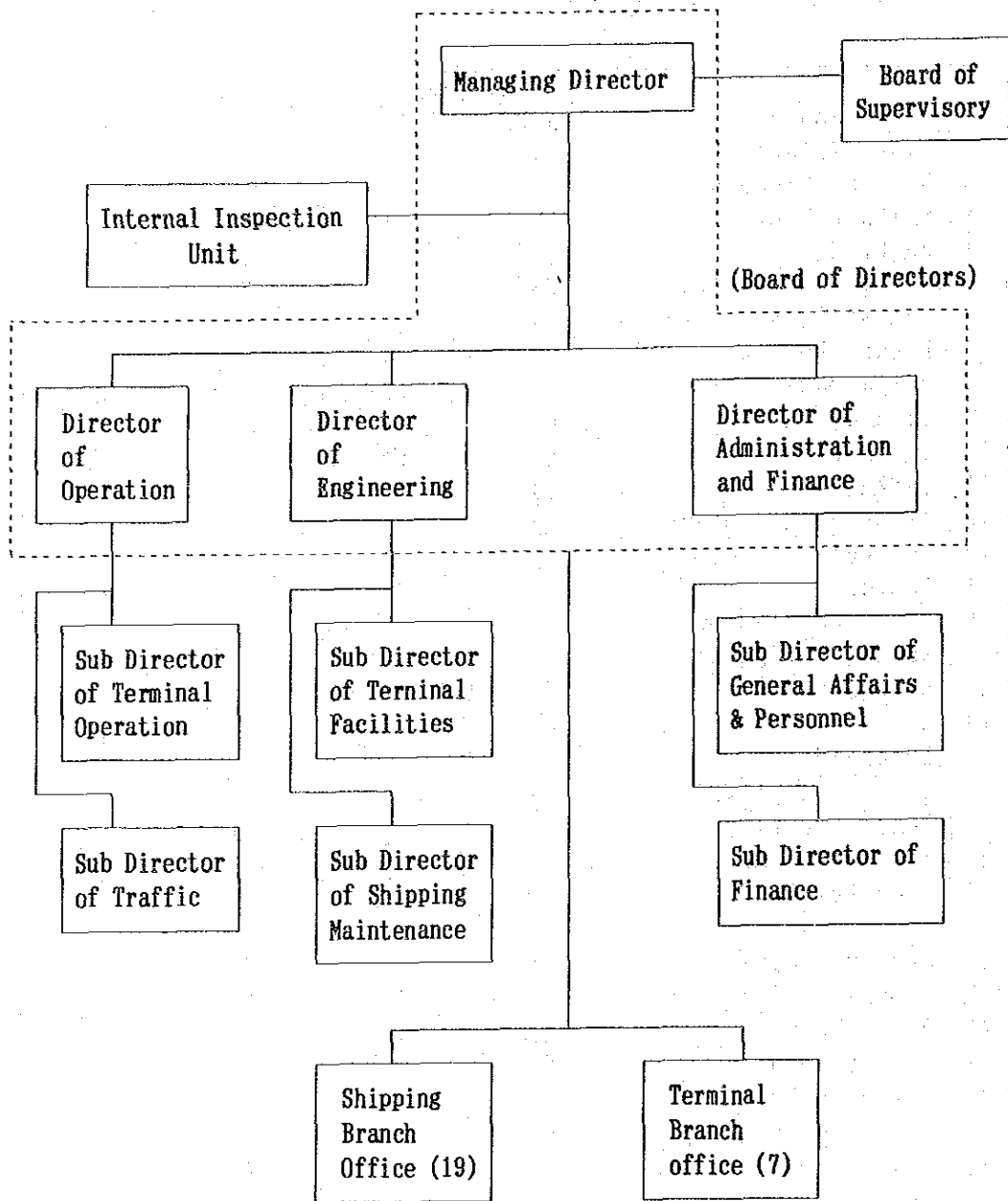


Fig. 1-3-1A Organization Chart of Perum ASDP

Table 1-3-2A Shipping Branch Offices of the ASDP

	Class	Office	Location	Shipping Routes
Shipping Branch	I	Jabar-Lampung Bali-NTB	Merak Mataram	Merak-Bakauheni Padangbai-Lembar Lombok-Pototano Sape-Komodo-L. Bajo
		Ketapang -Gilimanuk Sulseira	Ketapang Ujung Pandang	Ketapang-Gilimanuk Bajoe-Kolaka Bira-Pamatata Bau bau-Tolando Torobulu-Tampo-Maligono
		Surabaya NTT	Surabaya Kupang	Ujung-Kamal Kupang-Rote Kupang-Larantuka Larantuka-Waiwerang -Lewoleba Kupang-Kalabahi Kupang-Sabu Kupang-Ende
	II	Balikpapan -Panajam Maluku	Balikpapan Ambon	Balikpapan-Panajam Hunimua-Waipirit Poka-Galala
		KSO PASDP	Banjarmasin	Semarang-Kumai -Banjarmasin -Surabaya-Sampit
		III	Banda Aceh Meulaboh Jambi -Sumbar	Banda Aceh Meulaboh Jambi
	III	Bangka -Belitaung Cilacap -Kalipucang	Bangka Cilacap	Cilacap-Sidareja Kalipucang-Sidareja Cilacap-Kalipucang Kalianget-Jangkar
		Kalianget -Jangkar Kal-Bar	Nadura Pontianak	Kartiasa Barat-Timur Senggau-Sekado(Semuntai) Kota-Siantan Tharapan-Tkalong(Sekura)
		Luwuk-Salakan Sorong Merauke	Luwuk Sorong Merauke	Luwuk-Salakan Sorong-Jefman Merauke Jaya-Pomako Bade-Tanah Merah-Midiptana Merauke-Bupul Merauke-Tanah Merah

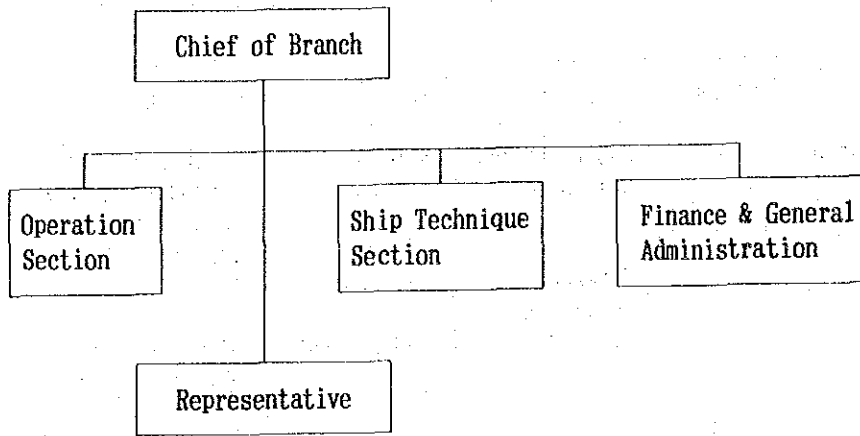


Fig. 1-3-2A Organization Chart of Shipping Branch (Class I & II) of the Perum ASDP

Table 1-3-3A Terminal Branch Offices of the Perum ASDP

	Class	Office	Location
Terminal Branch	I	Merak-Bakauheni	Merak
	II	Ketapang-Gilimanuk Ujung-Kamal Padangbai Lembar Lombok Timur Pototano	Ketapang Surabaya Padangbai Lembar Lombok Pototano

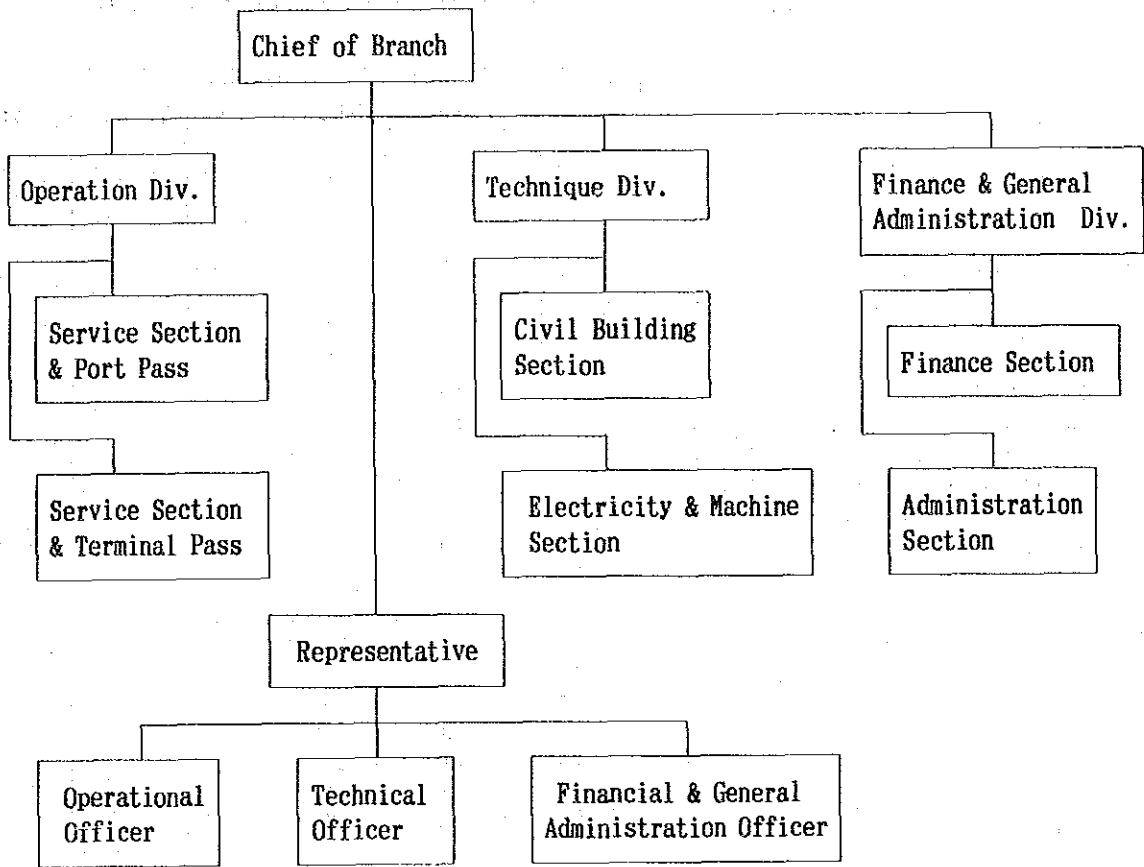


Fig. 1-3-3A Organization Chart of Terminal Branch (Class I) of the Perum ASDP

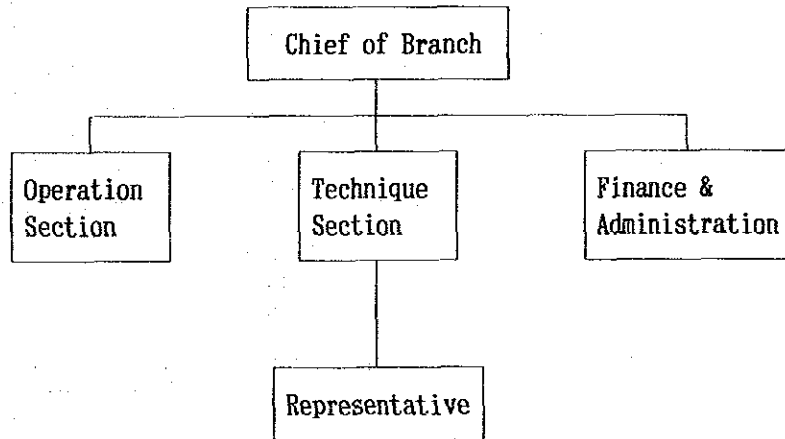


Fig. 1-3-4A Organization Chart of Terminal Branch (Class II) of the Perum ASDP

Table 1-3-4A Number of Personnel at the Perum ASDP in 1991

Office		Employee		Contract		Govern. Official	Temp.	Total
		Land	Ship	Land	Ship			
I	Head Office	117	33	14	8	8	13	193
II	Comercial Routes							
1	Jabar-Lampung	43	57	5	5			110
2	Sul-Sel-RA	17		3	1			21
	A. Bajoe-Kolaka	7	19	1	1			28
	B. Bira-Pamatata	6	14		2			22
3	Bali-NTB	35	77	25	27	1		165
4	Maluku	27	17	13	26			83
5	Kalimantan Timur	19	17	1	1			38
6	Ujung-Kamal	47	15	11	8			81
7	Ketapang-Gilimanuk	48	79	17	15			159
8	Banda Aceh	16	10	5	7			38
9	N.T.T.	20	36	14	12			82
III	Pioneer Routes							
	Kalimantan Barat	31	36					67
	Kalianget	14	14	1	6			35
	Meulaboh-Sinabang	14	16	2	1			33
	Merauke	10	15	11	11			47
	Cilacap	4	6	6	6			22
	Sorong	6	7	3	3			19
	Luwuk	3	10	4	10			27
	Sul-Sel-Ra							
	A. Torobulu-Tampo	6	12					18
	B. Bau Bau-Tolandona	4	8		1			13
	Bangka-Belitung	13	15	2	4			34
	Jambi-Sumbar	26	26	1	5	1		59
IV	Joint Operation							
	A. Banjarmasin	15	34	5	7			61
	B. Surabaya	12		1				13
	C. Semarang	9		3				12
V	Terminal							
	A. Merak	88		45		1		134
	B. Bakauheni	133		61		1		195
	C. Ketapang-Gim.	107		37			43	187
	D. Ujung-Kamal	52		90				142
	E. Lembar	17		39				56
	F. Padangbai	13		35				48
TOTAL		979	573	455	167	12	56	2,242

Table 1-3-5A Number of Personnel at the Perum ASDP

		1987	1988	1989	1990	1991
Perum Regular Employee	Head Office	91	90	94	98	150
	Branch					
	Land	411	391	439	407	862
	Ship	482	478	443	447	540
Sub-total		984	959	976	952	1,552
Government Official	Land	601	505	510	712	12
	Ship	0	86	123	159	0
Sub-total		601	591	633	871	12
Contract Employee etc.	Land	105	178	214	207	511
	Ship	17	51	101	146	167
Sub-total		122	229	315	353	678
TOTAL		1,707	1,779	1,924	2,176	2,242

Table 1-3-6A Profit and Loss Statements of the Perum ASDP

(UNIT: 1,000 Rp)

	1988	1989	1990	1991
Operating Revenues				
Shipping Operation	12,295,480	14,481,313	18,822,619	22,960,227
Ternimal Operation	3,563,563	5,143,735	7,194,975	9,195,211
Total Operating Revenues	15,859,043	19,625,048	26,017,594	32,155,438
Operating Expenses				
Personel Expenses				
Personnel of Land	2,543,064	3,100,381	3,852,913	4,671,377
Personnel of Ship	1,525,746	1,838,747	2,518,285	2,626,668
Administration	6,120,511	7,035,285	8,869,462	11,291,993
Maintenance and Repair	3,279,244	4,295,829	5,400,289	6,429,879
Dereciation	2,470,144	3,040,040	3,077,614	3,696,734
Total Operating Expenses	15,938,709	19,310,282	23,718,563	28,716,651
Net Operating Income	-79,666	314,766	2,299,031	3,438,787
Non-operating Revenues	1,038,818	972,711	778,409	1,258,470
Non-operating Expenses	47,432	67,218	92,131	51,825
Net Income Before Tax	911,720	1,220,259	2,985,309	4,645,432
Income Tax	967	6,085	387	0
Other Tax	10,696	42,533	55,872	59,917
Net Income after Tax	900,057	1,171,641	2,929,050	4,585,515
Operation Ratio	101%	98%	91%	89%
Working Ratio	85%	83%	79%	78%

(Source: the Perum ASDP)

Table 1-3-7A Service Lives of Facilities

Assets	Year
Ship	20
Quay facilities	25
Terminal Building	25
Electric Equipment	5
Terminal Equipment	10
Terminal Installation	10
Lifesaving Tool	10
Work-tool, Repairing Tool	5
Office Equipment	5

(Source: Perum ASDP)

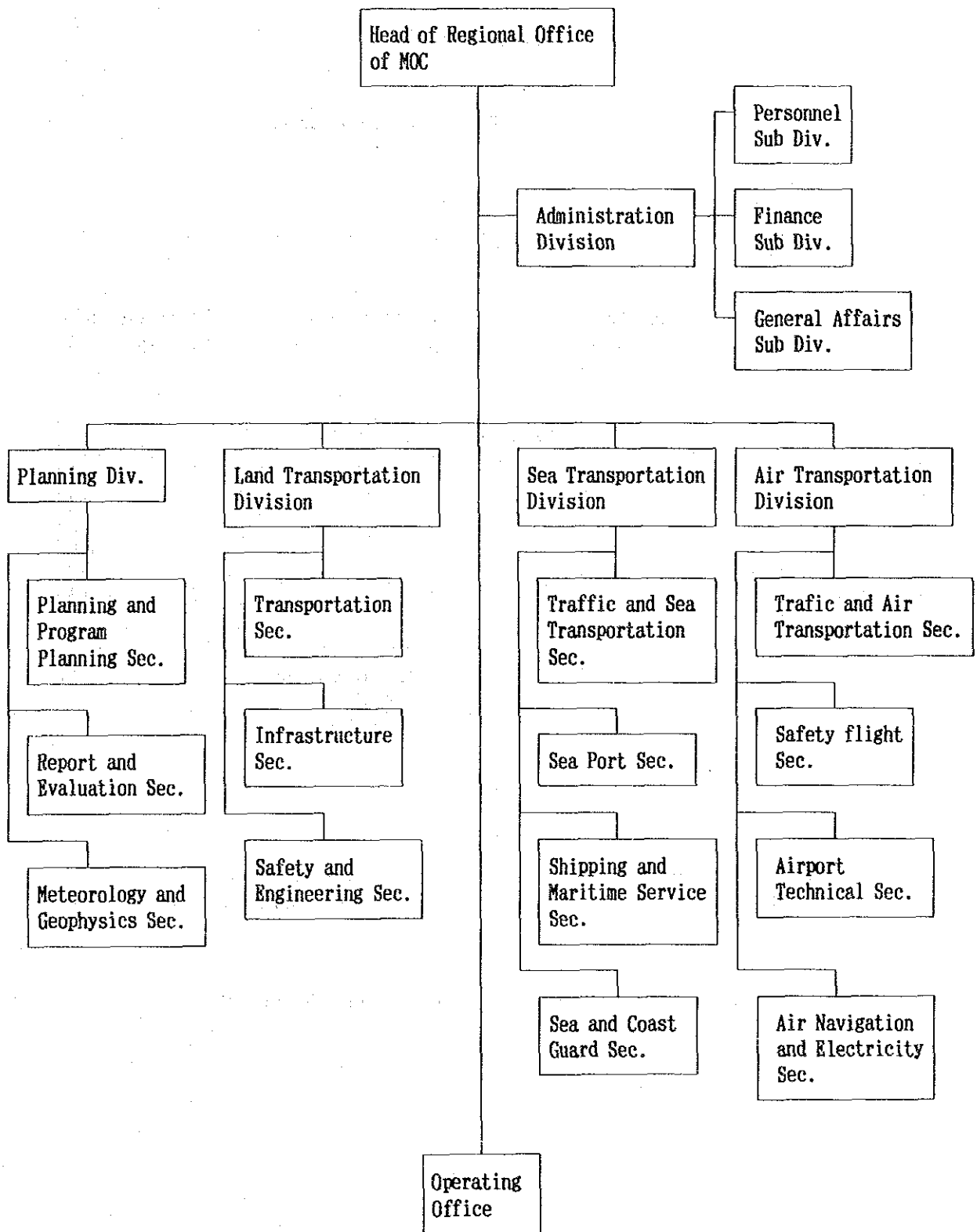


Fig. 1-3-5A Organization Chart of Regional Office of MOC

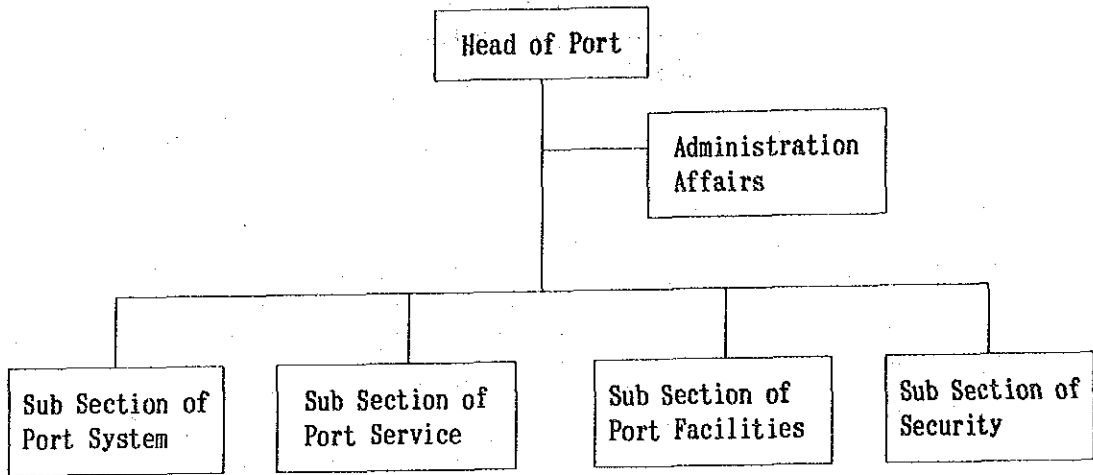


Fig. 1-3-6A Terminal Office of MOC (Class II)

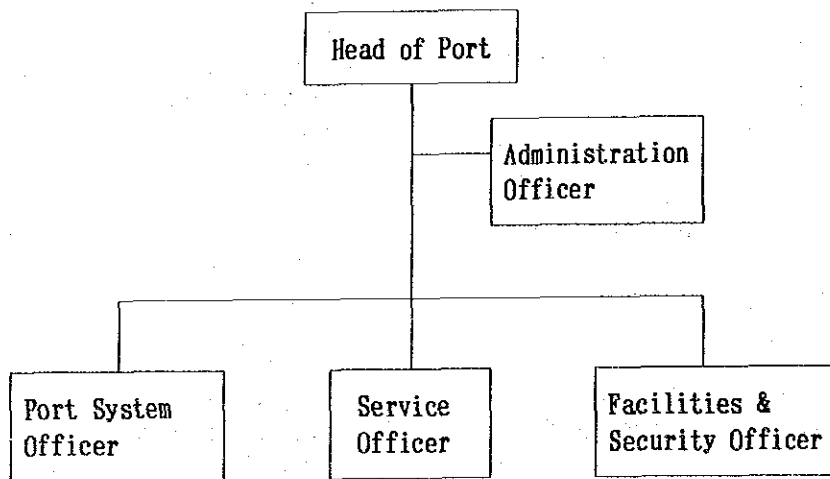


Fig. 1-3-7A Terminal Office of MOC (Class III)

Table 1-3-8A Revenues and Expenses in Port Offices in 1991

(Unit: 1,000 Rp.)

Office	Revenue	Expense				Total	Expen./ Revenue
		Personnel	Operation	Mainten.	Trip		
Kali Pucang	2,460	37,970	20,335	16,762	255	75,322	30.62
Cilacap	2,217	48,458	22,329	23,095	255	94,137	42.46
Jangkar	5,264	38,949	8,310	13,603	150	61,012	11.59
Kali Anget	5,000	37,014	8,106	10,997	150	56,267	11.25
Meulaboh	3,919	33,792	10,229	6,206	170	50,397	12.86
Sinabang	4,538	37,992	11,093	10,055	180	59,320	13.07
Balohan	10,347	51,441	11,194	15,900	300	78,835	7.62
Palembang	13,781	65,784	17,680	200	10,000	93,664	6.80
Kayu Arang	4,918	53,375	12,433	200	6,000	72,008	14.64
Balik Papan	37,294	24,635	7,492	12,683	200	45,010	1.21
Panajam	38,586	23,699	8,229	12,748	200	44,876	1.16
Rasau Jaya	5,000	34,321	7,030	0	0	41,351	8.27
Bajoe	65,911	60,223	27,617	23,435	150	111,425	1.69
Bira	5,312	44,506	11,043	23,061	130	78,740	14.82
Pamatata	5,028	43,992	7,641	22,369	130	74,132	14.74
Kolaka	44,919	49,116	16,964	24,292	150	90,522	2.02
Toro Bulu	2,160	21,017	6,316	13,550	250	41,133	19.04
Tampo	6,732	21,877	5,390	10,650	250	38,167	5.67
Poka	5,000	29,209	7,142	9,438	400	46,189	9.24
Galala	5,000	35,803	7,262	9,318	400	52,783	10.56
Hunimoa	30,166	33,827	9,272	47,350	400	90,849	3.01
Waipirit	28,670	29,175	9,680	15,735	400	54,990	1.92
Alas	36,950	32,455	14,275	8,826	220	55,776	1.51
Lombok	40,995	35,635	7,087	10,607	220	53,549	1.31
Sape	12,751	38,951	6,107	6,764	200	52,022	4.08
Padang Bai	N.A.	18,984	12,994	5,150	700	37,828	
Lembar	N.A.	62,206	67,968	31,225	300	161,699	
Jambi	N.A.	193,232	106,294	32,190	0	331,716	

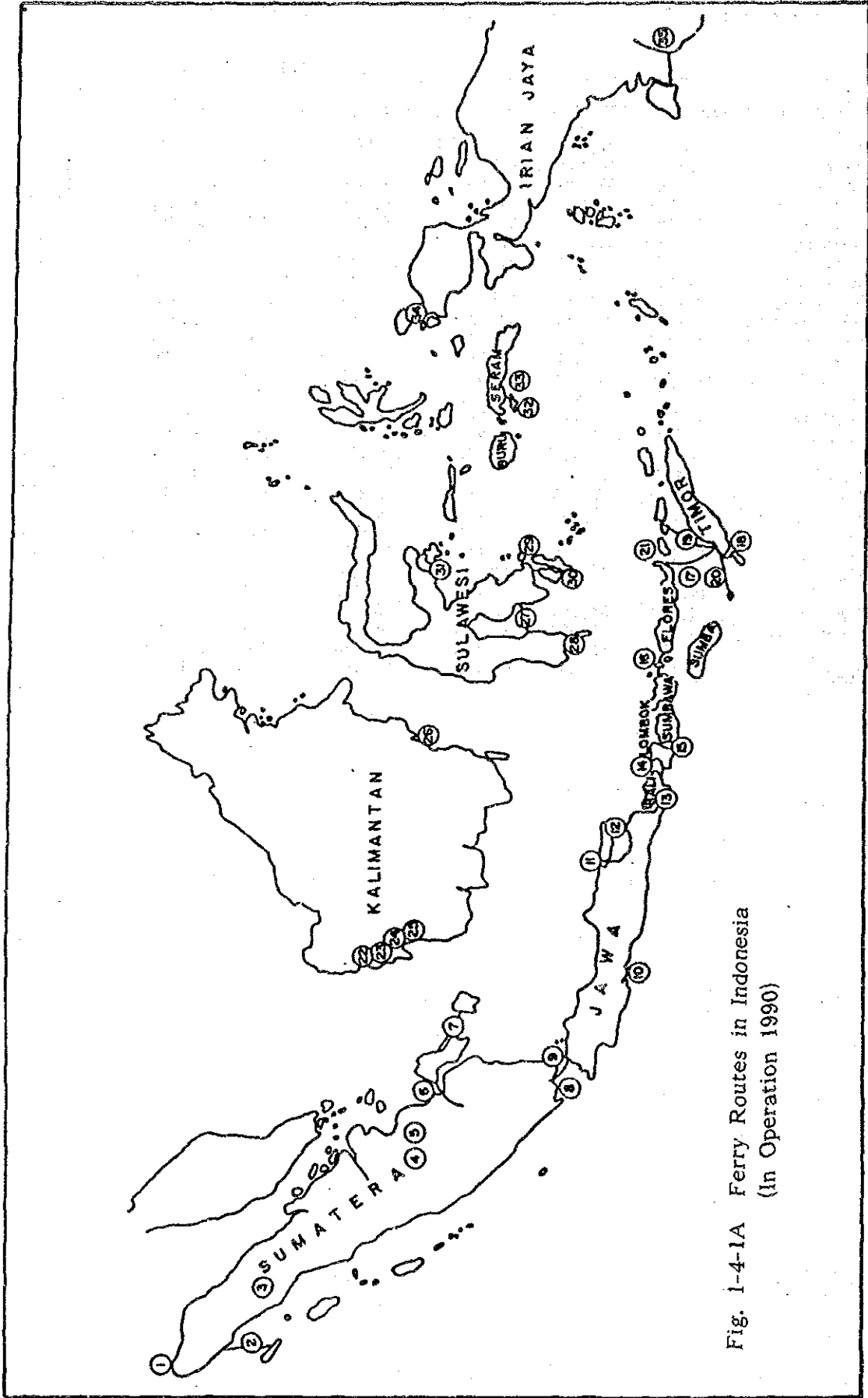


Fig. 1-4-1A Ferry Routes in Indonesia
(In Operation 1990)

Table 1-4-1A Ferry Transportation Volume in 1990

Route	Distance Mile	Trip/Day	Passen. 1,000	Cargo 1,000	Veh. -4 1,000	Veh. -2 1,000
1 Saban-Malahayati	15.0	2.00	85	8	3	5
2 Melaboh-Sinabang	101.0	0.57	22	2	0	0
3 Ajibata-Tomok	3.0	10.00	326	22	29	8
4 Jambi City						
5 Jambi-Kualatungkal			30	14	4	0
6 Palembang-Kayuarang	83.0	2.00	81	2	2	1
7 Banka-Belitung	110.0	0.57	28	1	0	0
8 Merak-Panjang						
9 Merak-Bakauheni	15.0	56.00	8,337	3,183	936	11
10 Cilacap-Kalipucang	35.0	6.00	150	0	0	0
11 Ujung-Kamal	2.5	216.00	13,105	992	1,065	993
12 Jankar-Kalianget	40.0	2.00	56	6	2	3
13 Ketapang-Gilimanuk	4.0	108.00	2,692	1,890	658	67
14 Padangbai-Lember	34.0	6.00	655	97	48	11
15 Lombok-Tano	11.0	4.00	286	15	11	3
16 Sape-Komodo-Labuh.	54.0	1.00	24	1	0	0
17 Kupang-Larantuka	120.0	0.57	46	1	1	0
18 Kupang-Rote	40.0	1.14	71	1	3	0
19 Kupang-Kalabahi	137.0	0.57	12	1	0	0
20 Kupang-Sabu	115.0	0.29	9	1	0	0
21 Lar.-Waiw.-Lewol.	30.0	0.57	9	0	0	0
22 Pontianak City			512	0	200	416
23 Kartiasa River Cr.	0.5	30.00	182	3	19	53
24 Semuntai River Cr.	0.5	20.00	232	18	26	10
25 Sekura River Cr.	0.5	20.00	60	1	9	24
26 Penajam-Balikpapan	8.0	10.00	152	15	33	12
27 Bajoe-Kolaka	96.0	4.00	264	36	12	2
28 Bira-Pamatata	17.0	2.00	38	2	3	2
29 Toroburu-Tampo	20.0	2.00	31	2	3	1
30 Baubau-Wara	6.0	3.00	9	0	0	0
31 Luwuk-Sabang-Salakan	46.0	1.00	9	1	0	0
32 Poka-Galala	0.5	100.00	3,788	5	559	311
33 Hunimua-Waipirit	11.0	8.00	274	7	14	8
34 Sorong-Jeffman	15.0	4.00	40	1	0	0
35 Merauke-Bupul			7	0	0	0
Total			31,625	6,330	3,642	1,942

*Source: DGLT

Note:1. Veh.-4: Four-Wheeled Vehicle

2: Veh.-2: Two-Wheeled Vehicle

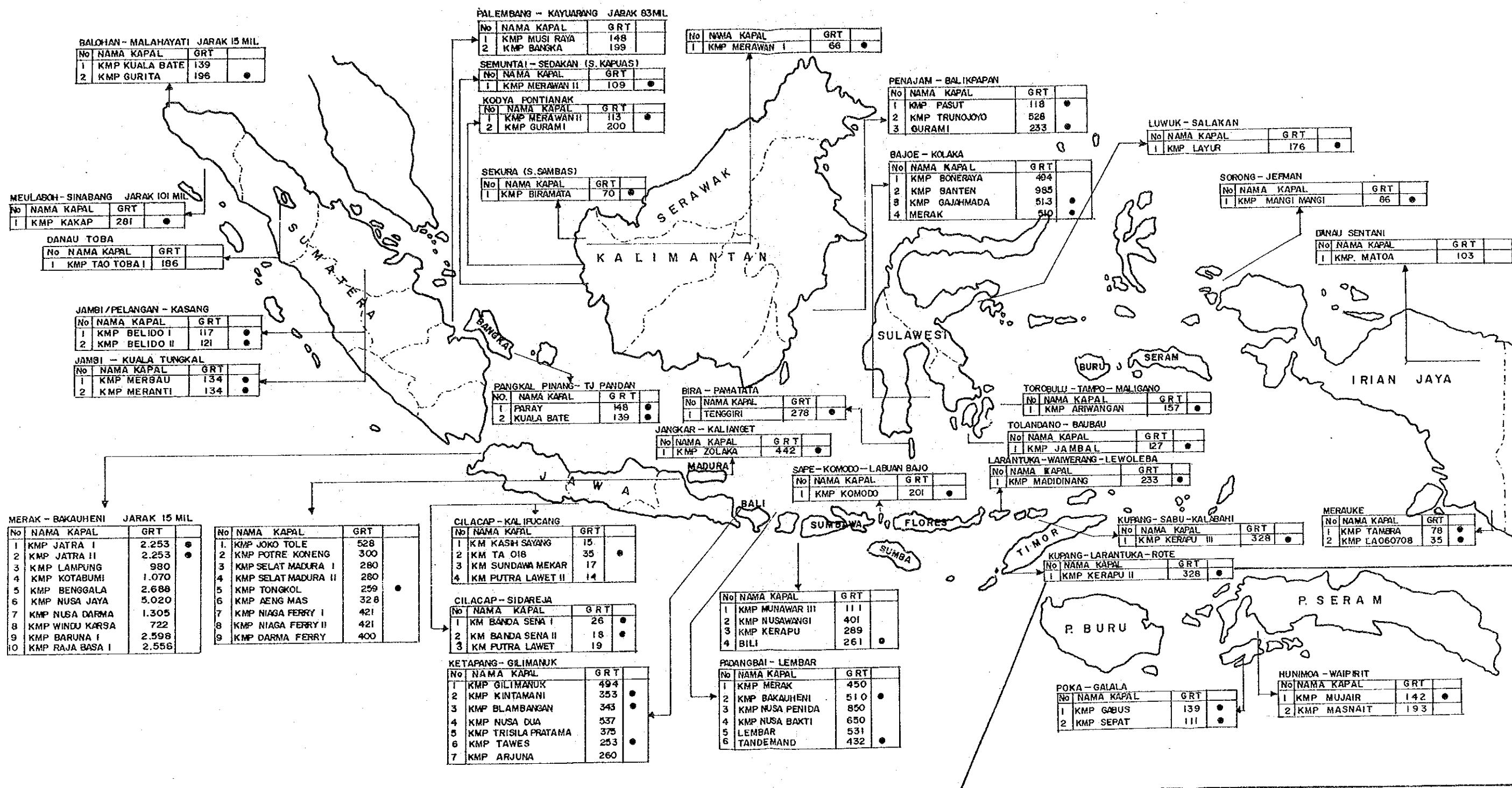


Fig. 1-4-2A Ferry Boats in Operation

Table 1-4-2A Ranking of the Ferry Routes by the Passenger Volume of 1990

Route	Distance Mile	Trip/Day	Passenger 1,000	Cargo 1,000	Veh. -4 1,000	Veh. -2 1,000
11 Ujung-Kamal	2.5	216.00	13,105	992	1,065	993
9 Merak-Bakauheni	15.0	56.00	8,337	3,183	936	11
32 Poka-Galala	0.5	100.00	3,788	5	559	311
13 Ketapang-Gilimanuk	4.0	108.00	2,692	1,890	658	67
14 Padangbai-Lember	34.0	6.00	655	97	48	11
22 Pontianak City			512	0	200	416
3 Ajibata-Tomok	3.0	10.00	326	22	29	8
15 Lombok-Tano	11.0	4.00	286	15	11	3
33 Hunimua-Waipirit	11.0	8.00	274	7	14	8
27 Bajoe-Kolaka	96.0	4.00	264	36	12	2
24 Semuntai River Cr.	0.5	20.00	232	18	26	10
23 Kartiasa River Cr.	0.5	30.00	182	3	19	53
26 Penajam-Balikpapan	8.0	10.00	152	15	33	12
10 Cilacap-Kalipucang	35.0	6.00	150	0	0	0
1 Saban-Malahayati	15.0	2.00	85	8	3	5
6 Palembang-Kayuarang	83.0	2.00	81	2	2	1
18 Kupang-Rote	40.0	1.14	71	1	3	0
25 Sekura River Cr.	0.5	20.00	60	1	9	24
12 Jankar-Kalianget	40.0	2.00	56	6	2	3
17 Kupang-Larantuka	120.0	0.57	46	1	1	0
34 Sorong-Jeffman	15.0	4.00	40	1	0	0
28 Bira-Pamatata	17.0	2.00	38	2	3	2
29 Toroburu-Tampo	20.0	2.00	31	2	3	1
5 Jambi-Kualatungkal			30	14	4	0
7 Banka-Belitung	110.0	0.57	28	1	0	0
16 Sape-Komodo-Labuh.	54.0	1.00	24	1	0	0
2 Melaboh-Sinabang	101.0	0.57	22	2	0	0
19 Kupang-Kalabahi	137.0	0.57	12	1	0	0
30 Baubau-Wara	6.0	3.00	9	0	0	0
20 Kupang-Sabu	115.0	0.29	9	1	0	0
21 Lar. -Waiw. -Lewol.	30.0	0.57	9	0	0	0
31 Luwuk-Sabang-Salakan	46.0	1.00	9	1	0	0
35 Merauke-Bupul			7	0	0	0
8 Merak-Panjang						
4 Jambi City						
Total			31,625	6,330	3,642	1,942

*Source: DGLT

Note: 1. Veh. -4: Four-Wheeled Vehicle

2. Veh. -2: Two-Wheeled Vehicle

Table 1-4-3A Ranking of the Ferry Routes by the Cargo Volume of 1990

Route	Distance Mile	Trip/Day	Passenger 1,000	Cargo 1,000	Veh. -4 1,000	Veh. -2 1,000
9 Merak-Bakauheni	15.0	56.00	8,337	3,183	936	11
13 Ketapang-Gilimanuk	4.0	108.00	2,692	1,890	658	67
11 Ujung-Kamal	2.5	216.00	13,105	992	1,065	993
14 Padangbai-Lember	34.0	6.00	655	97	48	11
27 Bajoe-Kolaka	96.0	4.00	264	36	12	2
3 Ajibata-Tomok	3.0	10.00	326	22	29	8
24 Semuntai River Cr.	0.5	20.00	232	18	26	10
15 Lombok-Tano	11.0	4.00	286	15	11	3
26 Penajam-Balikpapan	8.0	10.00	152	15	33	12
5 Jambi-Kualatungkal			30	14	4	0
1 Saban-Malahayati	15.0	2.00	85	8	3	5
33 Hunimua-Waipirit	11.0	8.00	274	7	14	8
12 Jankar-Kalianget	40.0	2.00	56	6	2	3
32 Poka-Galala	0.5	100.00	3,788	5	559	311
23 Kartiasa River Cr.	0.5	30.00	182	3	19	53
29 Toroburu-Tampo	20.0	2.00	31	2	3	1
2 Melaboh-Sinabang	101.0	0.57	22	2	0	0
28 Bira-Pamatata	17.0	2.00	38	2	3	2
6 Palembang-Kayuarang	83.0	2.00	81	2	2	1
18 Kupang-Rote	40.0	1.14	71	1	3	0
25 Sekura River Cr.	0.5	20.00	60	1	9	24
17 Kupang-Larantuka	120.0	0.57	46	1	1	0
34 Sorong-Jeffman	15.0	4.00	40	1	0	0
16 Sape-Komodo-Labuh.	54.0	1.00	24	1	0	0
19 Kupang-Kalabahi	137.0	0.57	12	1	0	0
20 Kupang-Sabu	115.0	0.29	9	1	0	0
31 Luwuk-Sabang-Salakan	46.0	1.00	9	1	0	0
7 Banka-Belitung	110.0	0.57	28	1	0	0
10 Cilacap-Kalipucang	35.0	6.00	150	0	0	0
21 Lar.-Waiw.-Lewol.	30.0	0.57	9	0	0	0
35 Merauke-Bupul			7	0	0	0
22 Pontianak City			512	0	200	416
30 Baubau-Wara	6.0	3.00	9	0	0	0
4 Jambi City						
8 Merak-Panjang						
Total			31,625	6,330	3,642	1,942

*Source: DGLT

Table 1-4-4A Ranking of the Ferry Routes by the Vehicle-4 Volume of 1990

Route	Distance Mile	Trip/Day	Passenger 1,000	Cargo 1,000	Veh. -4 1,000	Veh. -2 1,000
11 Ujung-Kamal	2.5	216.00	13,105	992	1,065	993
9 Merak-Bakauheni	15.0	56.00	8,337	3,183	936	11
13 Ketapang-Gilimanuk	4.0	108.00	2,692	1,890	658	67
32 Poka-Galala	0.5	100.00	3,788	5	559	311
22 Pontianak City			512	0	200	416
14 Padangbai-Lember	34.0	6.00	655	97	48	11
26 Penajam-Balikpapan	8.0	10.00	152	15	33	12
3 Ajibata-Tomok	3.0	10.00	326	22	29	8
24 Semuntai River Cr.	0.5	20.00	232	18	26	10
23 Kartiassa River Cr.	0.5	30.00	182	3	19	53
33 Hunimua-Waipirit	11.0	8.00	274	7	14	8
27 Bajoe-Kolaka	96.0	4.00	264	36	12	2
15 Lombok-Tano	11.0	4.00	286	15	11	3
25 Sekura River Cr.	0.5	20.00	60	1	9	24
5 Jambi-Kualatungkal			30	14	4	0
29 Toroburu-Tampo	20.0	2.00	31	2	3	1
1 Saban-Malahayati	15.0	2.00	85	8	3	5
18 Kupang-Rote	40.0	1.14	71	1	3	0
28 Bira-Pamatata	17.0	2.00	38	2	3	2
6 Palembang-Kayuarang	83.0	2.00	81	2	2	1
12 Jankar-Kalianget	40.0	2.00	56	6	2	3
17 Kupang-Larantuka	120.0	0.57	46	1	1	0
7 Banka-Belitung	110.0	0.57	28	1	0	0
20 Kupang-Sabu	115.0	0.29	9	1	0	0
16 Sape-Komodo-Labuh.	54.0	1.00	24	1	0	0
35 Merauke-Bupul			7	0	0	0
19 Kupang-Kalabahi	137.0	0.57	12	1	0	0
34 Sorong-Jeffman	15.0	4.00	40	1	0	0
30 Baubau-Wara	6.0	3.00	9	0	0	0
10 Cilacap-Kalipucang	35.0	6.00	150	0	0	0
2 Melaboh-Sinabang	101.0	0.57	22	2	0	0
31 Luwuk-Sabang-Salakan	46.0	1.00	9	1	0	0
21 Lar.-Waiw.-Lewol.	30.0	0.57	9	0	0	0
4 Jambi City						
8 Merak-Panjang						
Total			31,625	6,330	3,642	1,942

*Source: DGLT

Table 1-4-5A Ranking of the Ferry Routes by the Number of Trip of 1990

Route	Distance Mile	Trip/Day	Passenger 1,000	Cargo 1,000	Veh. -4 1,000	Veh. -2 1,000
11 Ujung-Kamal	2.5	216.00	13,105	992	1,065	993
13 Ketapang-Gilimanuk	4.0	108.00	2,692	1,890	658	67
32 Poka-Galala	0.5	100.00	3,788	5	559	311
9 Merak-Bakauheni	15.0	56.00	8,337	3,183	936	11
23 Kartiasa River Cr.	0.5	30.00	182	3	19	53
24 Semuntai River Cr.	0.5	20.00	232	18	26	10
25 Sekura River Cr.	0.5	20.00	60	1	9	24
26 Penajam-Balikpapan	8.0	10.00	152	15	33	12
3 Ajibata-Tomok	3.0	10.00	326	22	29	8
33 Hunimua-Waipirit	11.0	8.00	274	7	14	8
10 Cilacap-Kalipucang	35.0	6.00	150	0	0	0
14 Padangbai-Lember	34.0	6.00	655	97	48	11
27 Bajoe-Kolaka	96.0	4.00	264	36	12	2
15 Lombok-Tano	11.0	4.00	286	15	11	3
34 Sorong-Jeffman	15.0	4.00	40	1	0	0
30 Baubau-Wara	6.0	3.00	9	0	0	0
1 Saban-Malahayati	15.0	2.00	85	8	3	5
6 Palembang-Kayuarang	83.0	2.00	81	2	2	1
28 Bira-Pamatata	17.0	2.00	38	2	3	2
12 Jankar-Kalianget	40.0	2.00	56	6	2	3
29 Toroburu-Tampo	20.0	2.00	31	2	3	1
18 Kupang-Rote	40.0	1.14	71	1	3	0
31 Luwuk-Sabang-Salakan	46.0	1.00	9	1	0	0
16 Sape-Komodo-Labuh.	54.0	1.00	24	1	0	0
2 Melaboh-Sinabang	101.0	0.57	22	2	0	0
19 Kupang-Kalabahi	137.0	0.57	12	1	0	0
21 Lar.-Waiw.-Lewol.	30.0	0.57	9	0	0	0
17 Kupang-Larantuka	120.0	0.57	46	1	1	0
7 Banka-Belitung	110.0	0.57	28	1	0	0
20 Kupang-Sabu	115.0	0.29	9	1	0	0
35 Merauke-Bupul			7	0	0	0
22 Pontianak City			512	0	200	416
5 Jambi-Kualatungkal			30	14	4	0
4 Jambi City						
8 Merak-Panjang						
Total			31,625	6,330	3,642	1,942

*Source: DGLT

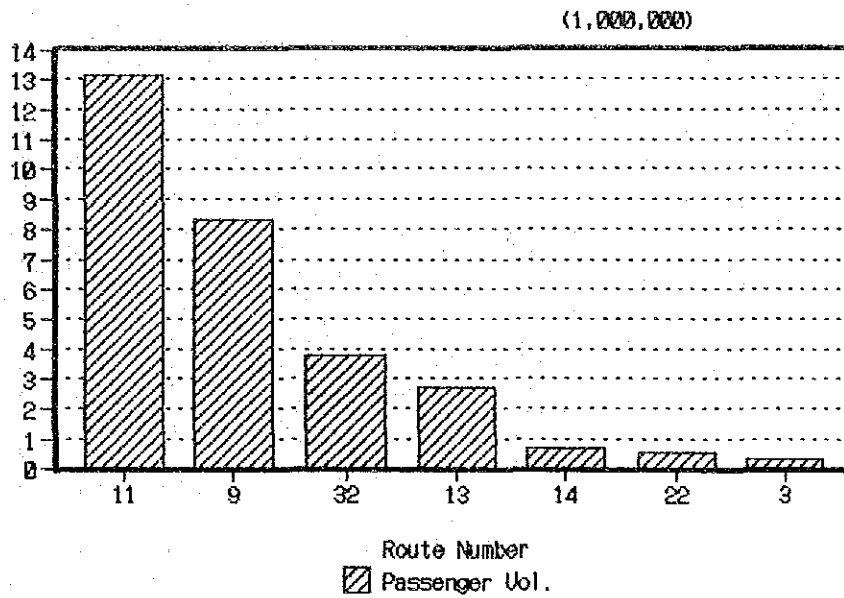


Fig. 1-4-3A Ranking of the Ferry Routes by the Passenger Volume of 1990 (1)

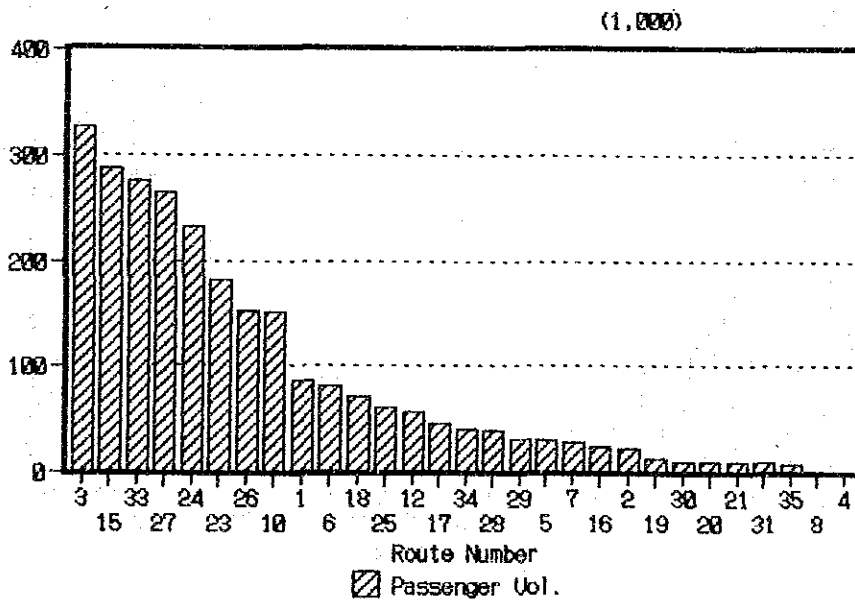


Fig. 1-4-3A Ranking of the Ferry Routes by the Passenger Volume of 1990 (2)

(1,000,000)

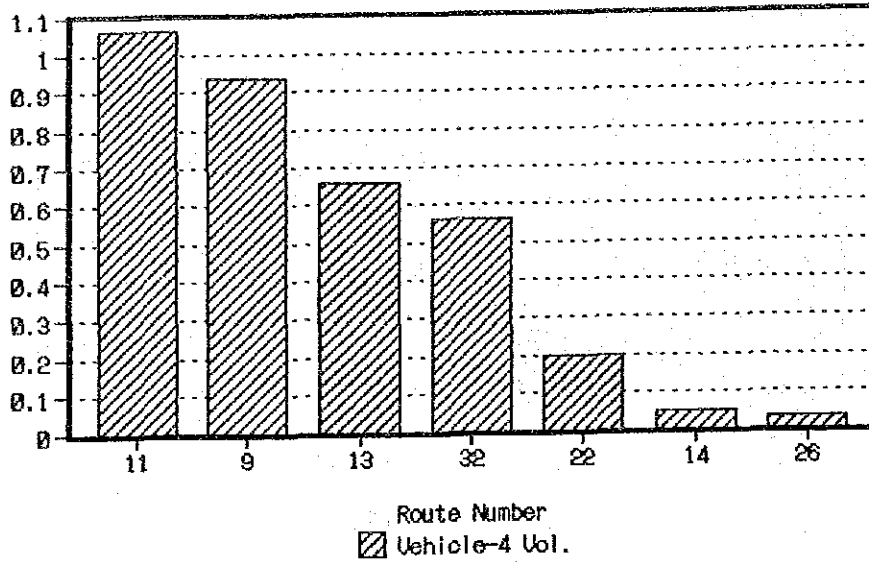


Fig. 1-4-3A Ranking of the Ferry Routes by the Four-Wheeled Vehicle of 1990 (1)

(1,000)

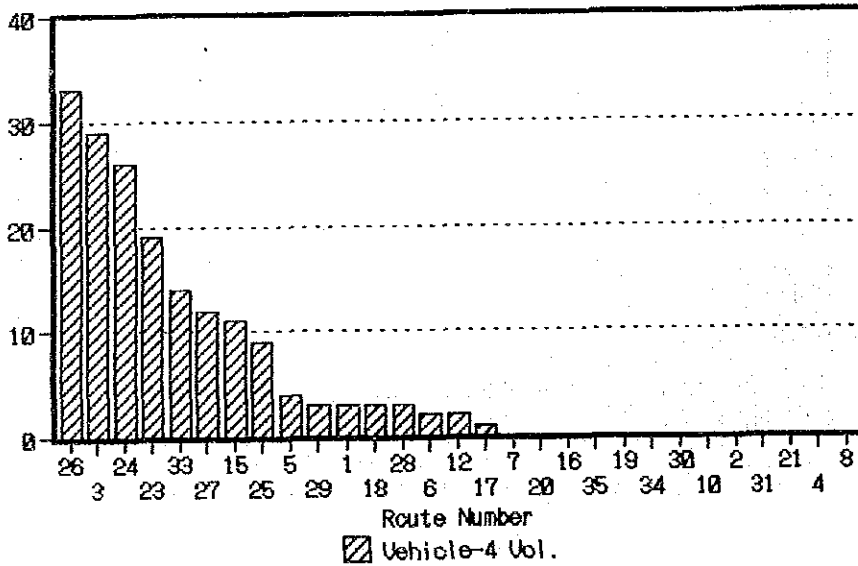


Fig. 1-4-3A Ranking of the Ferry Routes by the Four-Wheeled Vehicle of 1990 (2)

Table 1-4-6A Transportation Volume per One Ferry's Trip in 1990 (1)

Route	A (mile) Distance	B Trip/Day	C Passenger	D= C/(B*365)	E Cargo (ton)	F= E/(B*365)
9 Merak-Bakauheni	15.0	56.00	8,337,358	408	3,183,487	156
13 Ketapang-Gilimanuk	4.0	108.00	2,692,358	68	1,889,992	48
14 Padangbai-Lember	34.0	6.00	655,352	299	97,485	45
27 Bajoe-Kotaka	96.0	4.00	264,303	181	36,344	25
11 Ujung-Kamal	2.5	216.00	13,105,466	166	991,905	13
1 Saban-Malahayati	15.0	2.00	85,342	117	8,205	11
15 Lombok-Tano	11.0	4.00	286,250	196	15,306	10
2 Melaboh-Sinabang	101.0	0.57	22,052	106	2,144	10
12 Jankar-Kalianget	40.0	2.00	55,526	76	6,408	9
17 Kupang-Larantuka	120.0	0.57	45,835	220	1,390	7
20 Kupang-Sabu	115.0	0.29	8,921	86	672	6
3 Ajibata-Tomok	3.0	10.00	326,098	89	22,336	6
7 Banka-Belitung	110.0	0.57	28,068	135	1,209	6
26 Penajan-Balikpapan	8.0	10.00	151,928	42	14,947	4
19 Kupang-Kalabahi	137.0	0.57	12,209	59	685	3
28 Bira-Pamatata	17.0	2.00	37,954	52	2,191	3
16 Sape-Komodo-Labuh.	54.0	1.00	23,700	65	1,074	3
31 Luwuk-Sabang-Salakan	46.0	1.00	9,874	27	1,014	3
24 Semuntai River Cr.	0.5	20.00	232,318	32	18,072	2
33 Hunimua-Waipirit	11.0	8.00	274,320	94	7,112	2
29 Toroburu-Tampo	20.0	2.00	30,589	42	1,761	2
6 Palembang-Kayuarang	83.0	2.00	81,119	111	1,567	2
18 Kupang-Rote	40.0	1.14	70,612	169	685	2
21 Lar.-Waiw.-Lewol.	30.0	0.57	9,300	45	316	2
34 Sorong-Jeffman	15.0	4.00	39,771	27	1,121	1
23 Kartiasa River Cr.	0.5	30.00	182,275	17	2,617	0
32 Poka-Galala	0.5	100.00	3,788,244	104	5,076	0
25 Sekura River Cr.	0.5	20.00	60,003	8	816	0
10 Cilacap-Kalipucang	35.0	6.00	150,079	69	134	0
30 Baubau-Wara	6.0	3.00	8,784	8	14	0
4 Jambi City						
5 Jambi-Kualatungkal			29,273		14,168	
8 Merak-Panjang			0		0	
22 Pontianak City			511,761		0	
35 Merauke-Bupul			7,106		101	
Total			31,624,598	104	6,330,354	13

Table 1-4-6A Transportation Volume per One Ferry's Trip in 1990 (2)

Route	A(mile) Distance	B Trip/Day	G Vehicle-4	H= G/(B*365)	I Vehicle-2	J= I/(B*365)
9 Merak-Bakauheni	15.0	56.00	935,772	46	11,348	1
14 Padangbai-Lember	34.0	6.00	48,415	22	10,872	5
13 Ketapang-Gilimanuk	4.0	108.00	658,315	17	66,959	2
32 Poka-Galala	0.5	100.00	559,092	15	310,892	9
11 Ujung-Kanal	2.5	216.00	1,064,529	14	993,126	13
26 Penajam-Balikpapan	8.0	10.00	33,340	9	12,260	3
27 Bajoe-Kolaka	96.0	4.00	12,240	8	2,300	2
15 Lombok-Tano	11.0	4.00	11,532	8	3,241	2
3 Ajibata-Tomok	3.0	10.00	28,554	8	7,982	2
18 Kupang-Rote	40.0	1.14	2,667	6	0	0
33 Hunimua-Waipirit	11.0	8.00	14,272	5	7,552	3
28 Bira-Pamatata	17.0	2.00	3,413	5	2,320	3
29 Toroburu-Tampo	20.0	2.00	2,922	4	887	1
1 Saban-Malahayati	15.0	2.00	2,867	4	5,008	7
24 Semuntai River Cr.	0.5	20.00	26,077	4	9,721	1
6 Palembang-Kayuarang	83.0	2.00	2,353	3	650	1
17 Kupang-Larantuka	120.0	0.57	500	2	0	0
12 Jankar-Kalianget	40.0	2.00	1,578	2	3,319	5
7 Banka-Belitung	110.0	0.57	416	2	0	0
23 Kartiasa River Cr.	0.5	30.00	19,017	2	53,481	5
20 Kupang-Sabu	115.0	0.29	178	2	0	0
21 Lar.-Waiw.-Lewol.	30.0	0.57	322	2	0	0
16 Sape-Komodo-Labuh.	54.0	1.00	449	1	0	0
25 Sekura River Cr.	0.5	20.00	8,641	1	23,559	3
2 Melaboh-Sinabang	101.0	0.57	203	1	210	1
19 Kupang-Kalabahi	137.0	0.57	121	1	0	0
31 Luwuk-Sabang-Salakan	46.0	1.00	111	0	219	1
30 Baubau-Wara	6.0	3.00	232	0	250	0
34 Sorong-Jeffman	15.0	4.00	0	0	0	0
10 Cilacap-Kalipucang	35.0	6.00	0	0	135	0
22 Pontianak City			199,866		416,122	
5 Jambi-Kualatungkal			4,106		0	
8 Merak-Panjang			0		0	
4 Jambi City						
35 Merauke-Bupul			0		0	
Total			3,642,100	6	1,942,413	2

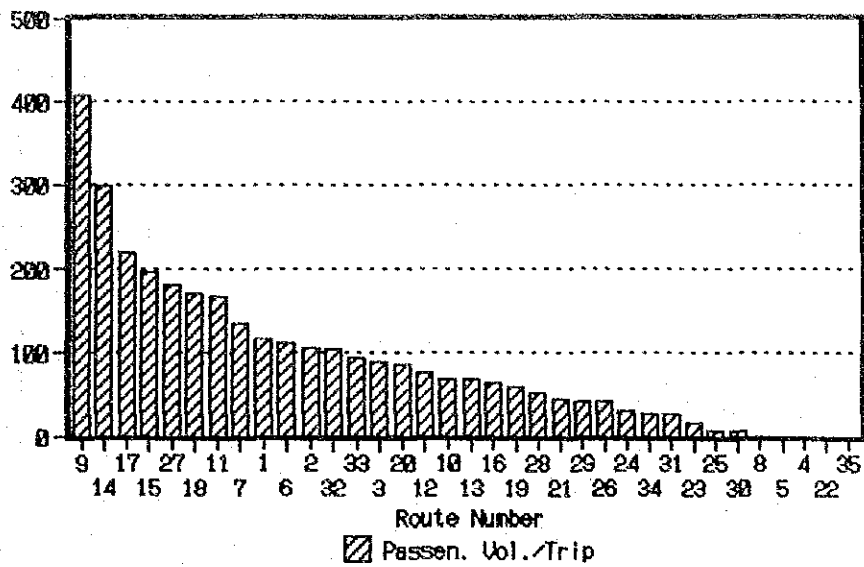


Fig. 1-4-7A Passenger Vol./One Ferry Trip

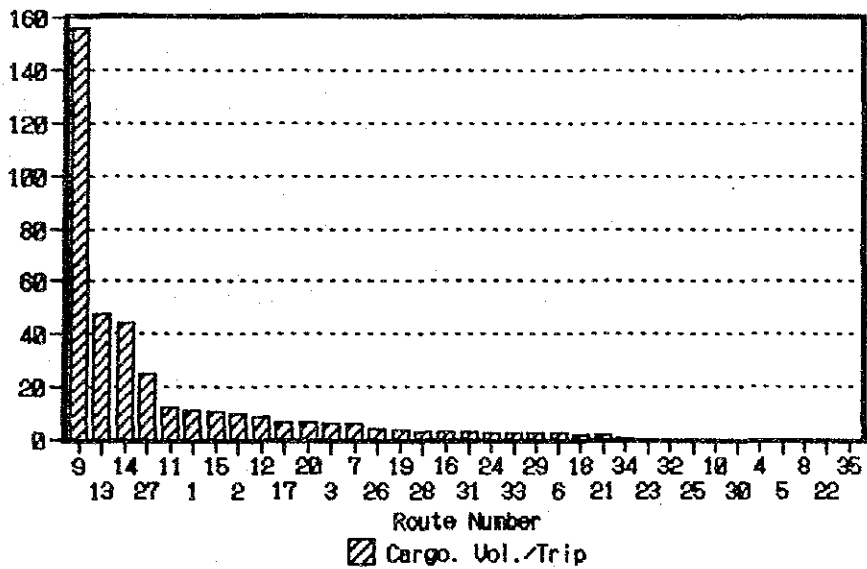


Fig. 1-4-8A Cargo's Vol./One Ferry Trip

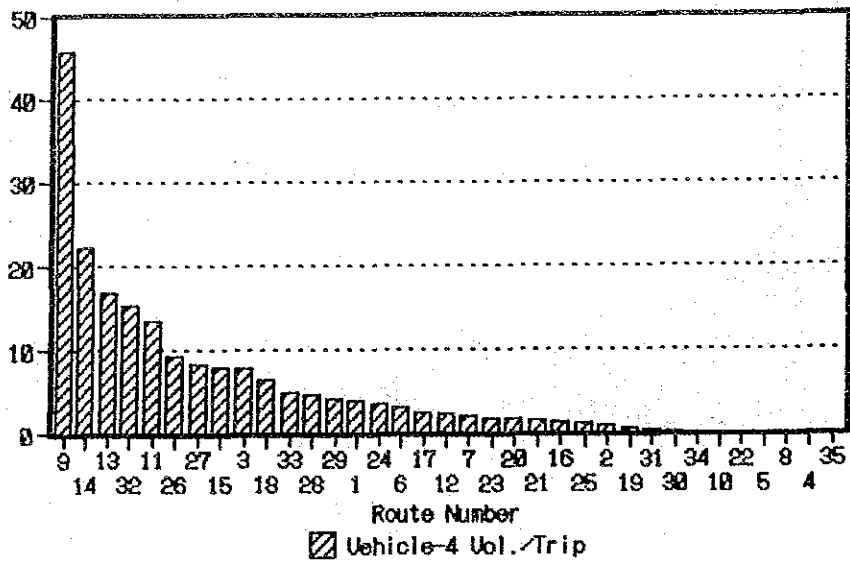


Fig. 1-4-9A Vehicle-4's Vol./Trip

Table 1-4-7A Cargo Volume by Commodity, by Transportation Mode

Commod. Code	Ferry		Sea Trans.		Commodity
	1,000T	%	1,000T	%	
010	887	22.88	703	8.28	Animal/Raw Mat. of Food
020	601	15.50	809	9.53	Food/Drink/Raw Mat. of Cigarette
030	184	4.75	124	1.46	Raw Mat. from Animal/Plant
040	114	2.94	87	1.02	Raw Mat. of Mineral
050	240	6.19	234	2.76	Processing Product of Animal/Plant
060	106	2.73	0	0.00	Process. Prod. of Mineral
070	168	4.33	386	4.55	Process. Prod. of Iron/Steel/Other Metal
080	152	3.92	0	0.00	Chemicals-Material/Product
090	47	1.21	240	2.83	Heavy Instrument/Machine
100	7	0.18	0	0.00	Electronic/Special Instrum./Watch/Music Instrum.
110	80	2.06	13	0.15	Housewares/Personal Goods
120	87	2.24	203	2.39	Miscellaneous Goods
130	654	16.87	2,634	31.02	General Cargo
201	125	3.22	529	6.23	Rice in Various Form
202	14	0.36	0	0.00	Coconut Oil
203	24	0.62	87	1.02	Salt
204	119	3.07	799	9.41	Cement
205	4	0.10	0	0.00	Coal/By-Product
206	0	0.00	1	0.01	
207	1	0.03	3	0.04	Process. Prod. of Oil: Gasoline/
208	1	0.03	0	0.00	Diesel Oil
210	4	0.10	0	0.00	Grease
212	13	0.34	0	0.00	Petroleum Gas/Other Hydrogen Gas
213	0	0.00	5	0.06	
214	8	0.21	13	0.15	Asphalt
215	48	1.24	1,146	13.50	Natural/Processed Fertilizer
216	169	4.36	475	5.59	Natural Timber
217	20	0.52	0	0.00	Raw Rubber
Total	3,877	100.00	8,491	100.00	

Source: O-D Survey Study, 1988 of MOC

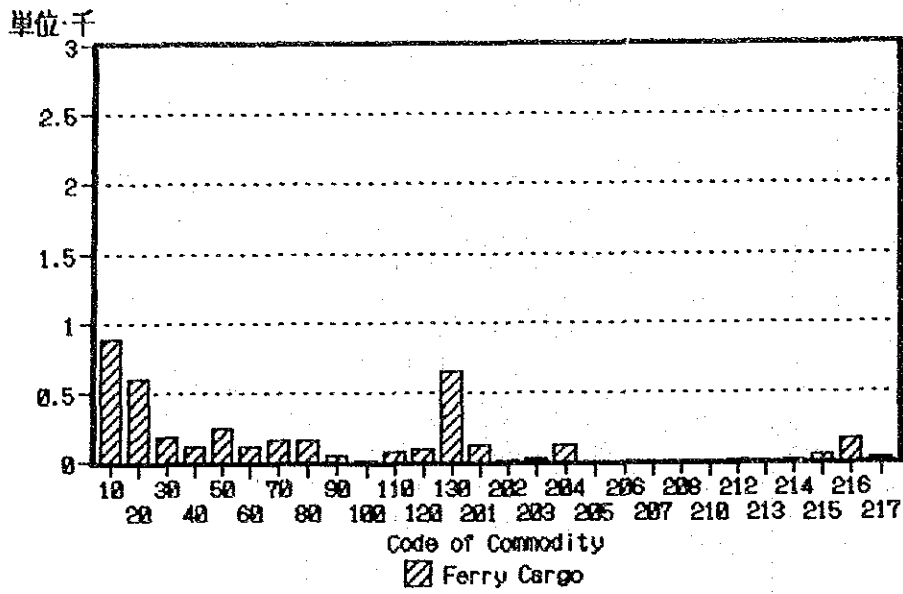


Fig. 1-4-10A Cargo Volume by Commodity/Mode (1,000ton)

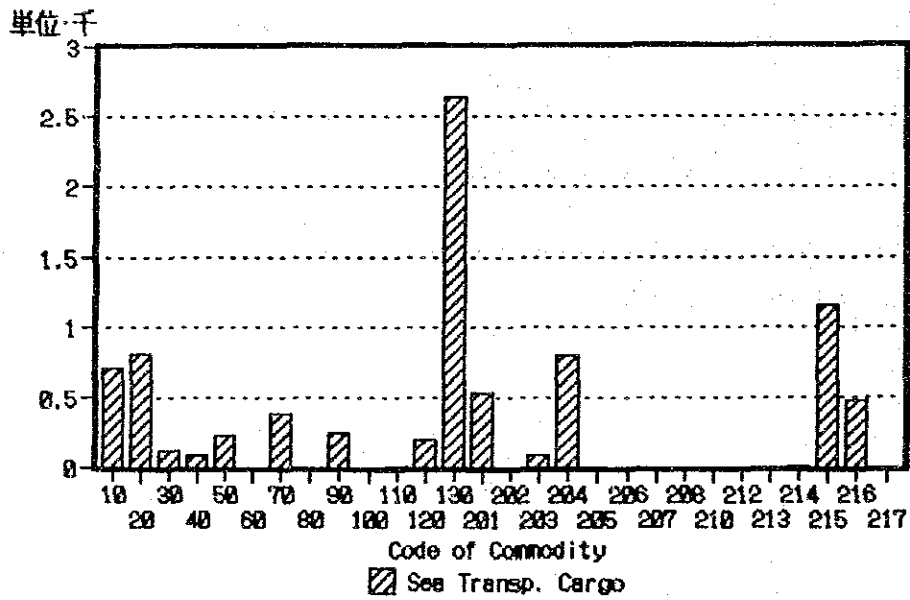


Fig. 1-4-11A Cargo Volume by Commodity/Mode (1,000ton)

Table 1-4-8A Seasonal Variation of the Ferry Passenger's Volume of 1990

(*1,000)

Month	Merakur-Bakaheuni		Hunimua-Waipirit		Kupang-Larantuka	
	Demand	Variation	Demand	Var.	Demand	Var.
1	619	0.91	33	1.13	2.92	0.95
2	561	0.83	29	0.99	1.82	0.59
3	598	0.88	32	1.10	2.71	0.88
4	863	1.27	31	1.06	2.34	0.76
5	639	0.94	28	0.96	2.23	0.73
6	938	1.38	32	1.10	4.66	1.52
7	919	1.36	31	1.06	5.64	1.83
8	609	0.90	24	0.82	3.57	1.16
9	581	0.86	25	0.86	3.40	1.11
10	604	0.89	24	0.82	2.48	0.81
11	531	0.78	28	0.96	2.54	0.83
12	675	1.00	33	1.13	2.59	0.84
Total	8137	12.00	350	12.00	36.90	12.00

Month	Bajoe-Kolaka		Pankalbalam-Tanjung.	
	Demand	Var.	Demand	Var.
1	26	1.02	1.15	0.91
2	24	0.94	1.30	1.03
3	24	0.94	1.39	1.10
4	25	0.98	2.49	1.98
5	23	0.90	1.00	0.79
6	29	1.14	0.00	0.00
7	35	1.38	1.75	1.39
8	25	0.98	1.36	1.08
9	21	0.83	0.75	0.60
10	24	0.94	0.00	0.00
11	23	0.90	0.29	0.23
12	26	1.02	1.72	1.37
Total	305	12.00	13.20	10.00

Source: Regional Office, DGLT

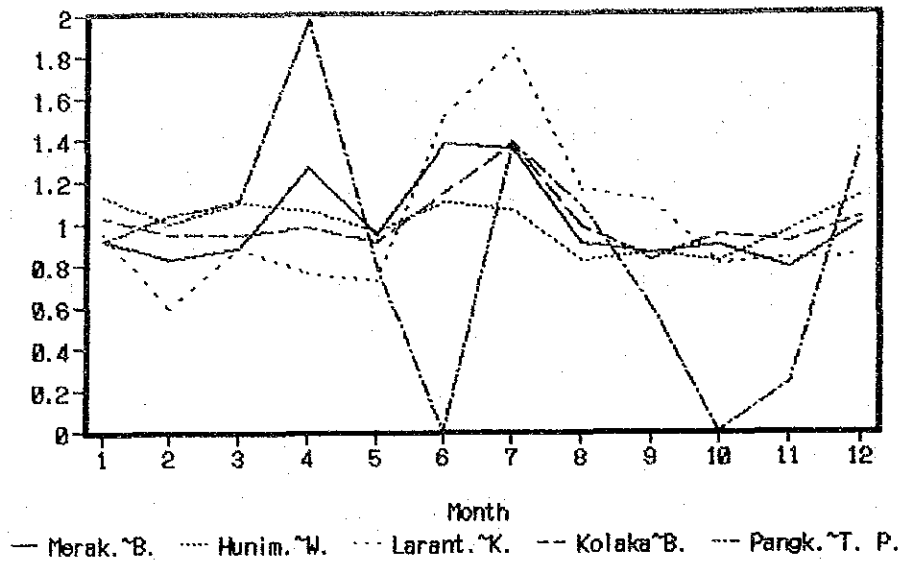


Fig. 1-4-12A Seasonal Variation of Ferry Passenger's Transportation Volume

Table 1-4-9A O-D of Ferry Passenger

O-D	A	B	C	D	E	F	Total
A	228,851	2,948,314	29,432	2,444	4,276	2,444	3,215,761
B	3,570,845	11,485,708	1,470,617	161	671	2,399	16,530,401
C	9,225	1,476,578	666,070	1,117	342	319	2,153,651
D	4,442	4,530	3,715	124,466	916	89	138,158
E	8,324	1,458	1,514	162	291,198	798	303,454
F	1,894	6,119	0	0	2,135	147,707	157,855
Total	3,823,581	15,922,707	2,171,348	128,350	299,538	153,756	22,499,280

Source: O-D Study 1988, MOC

Table 1-4-10A O-D of Ferry Passenger (Percentage)

O-D	A	B	C	D	E	F	Total
A	1.02	13.10	0.13	0.01	0.02	0.01	14.29
B	15.87	51.05	6.54	0.00	0.00	0.01	73.47
C	0.04	6.56	2.96	0.00	0.00	0.00	9.57
D	0.02	0.02	0.02	0.55	0.00	0.00	0.61
E	0.04	0.01	0.01	0.00	1.29	0.00	1.35
F	0.01	0.03	0.00	0.00	0.01	0.66	0.70
Total	16.99	70.77	9.65	0.57	1.33	0.68	100.00

Source: O-D Study 1988, MOC

Table 1-4-11A O-D of Conventional Vessel's Passenger

O-D	A	B	C	D	E	F	Total
A	622,623	127,974	6,332	16,790	15,411	2,503	791,633
B	116,946	109,307	15,607	160,114	142,288	51,117	595,379
C	6,471	17,161	124,489	8,424	31,927	1,249	189,721
D	17,308	155,707	7,412	324,926	100,503	447	606,303
E	13,002	268,117	30,408	119,759	663,102	89,399	1,183,787
F	1,993	44,733	1,168	454	88,497	468,905	605,750
Total	778,343	722,999	185,416	630,467	1,041,728	613,620	3,972,573

Source: O-D Study 1988, MOC

Table 1-4-12A O-D of Conventional Vessel's passenger (Percentage)

O-D	A	B	C	D	E	F	Total
A	15.67	3.22	0.16	0.42	0.39	0.06	19.93
B	2.94	2.75	0.39	4.03	3.58	1.29	14.99
C	0.16	0.43	3.13	0.21	0.80	0.03	4.78
D	0.44	3.92	0.19	8.18	2.53	0.01	15.26
E	0.33	6.75	0.77	3.01	16.69	2.25	29.80
F	0.05	1.13	0.03	0.01	2.23	11.80	15.25
Total	19.59	18.20	4.67	15.87	26.22	15.45	100.00

Source: O-D Study 1988, MOC

Table 1-4-13A O-D of Air Passenger

O-D	A	B	C	D	E	F	Total
A	548,413	929,867	38,559	35,364	10,978	3,792	1,566,973
B	829,818	1,299,851	478,741	553,654	170,503	144,996	3,477,563
C	15,834	514,538	197,381	8,229	32,723	6,547	775,252
D	36,554	522,946	10,062	339,114	31,330	21,989	961,995
E	8,461	180,848	41,564	24,988	133,600	37,690	427,151
F	7,787	133,599	4,978	5,745	29,077	190,491	371,677
Total	1,446,867	3,581,649	771,285	967,094	408,211	405,505	7,580,611

Source: O-D Study 1988, MOC

Table 1-4-14A O-D of Air Passenger (Percentage)

O-D	A	B	C	D	E	F	Total
A	7.23	12.27	0.51	0.47	0.14	0.05	20.67
B	10.95	17.15	6.32	7.30	2.25	1.91	45.87
C	0.21	6.79	2.60	0.11	0.43	0.09	10.23
D	0.48	6.90	0.13	4.47	0.41	0.29	12.69
E	0.11	2.39	0.55	0.33	1.76	0.50	5.63
F	0.10	1.76	0.07	0.08	0.38	2.51	4.90
Total	19.09	47.25	10.17	12.76	5.38	5.35	100.00

Source: O-D Study 1988, MOC

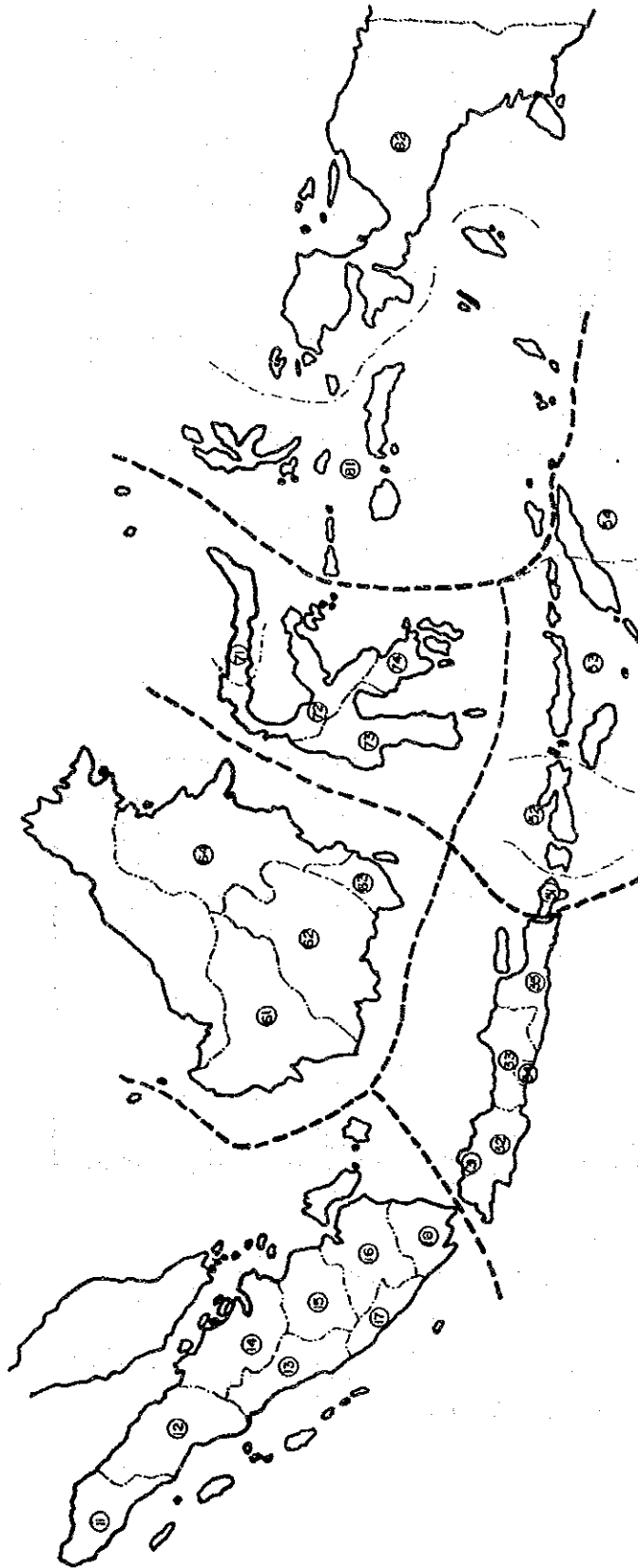


Fig. 1-4-13A Area Code of O-D Study

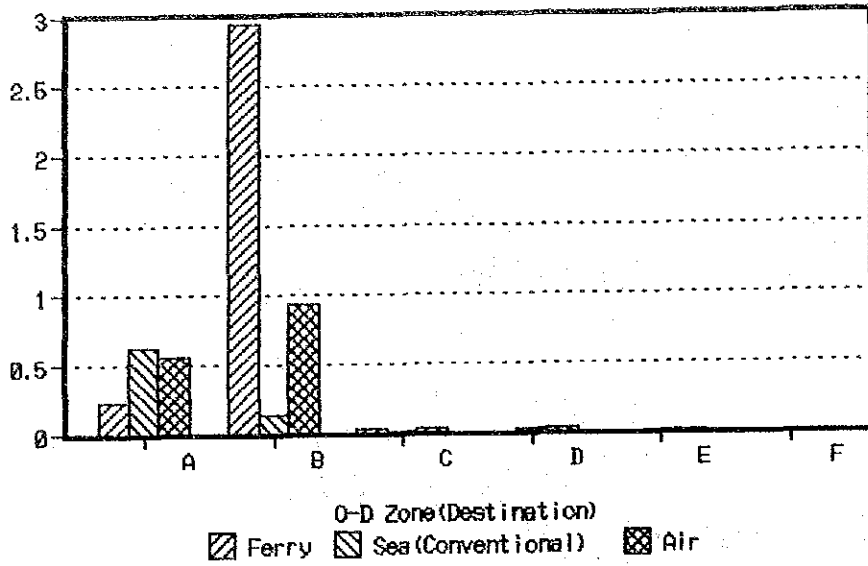


Fig. 1-4-14A Passenger's O-D by Each Mode From "A" Zone (1,000,000)

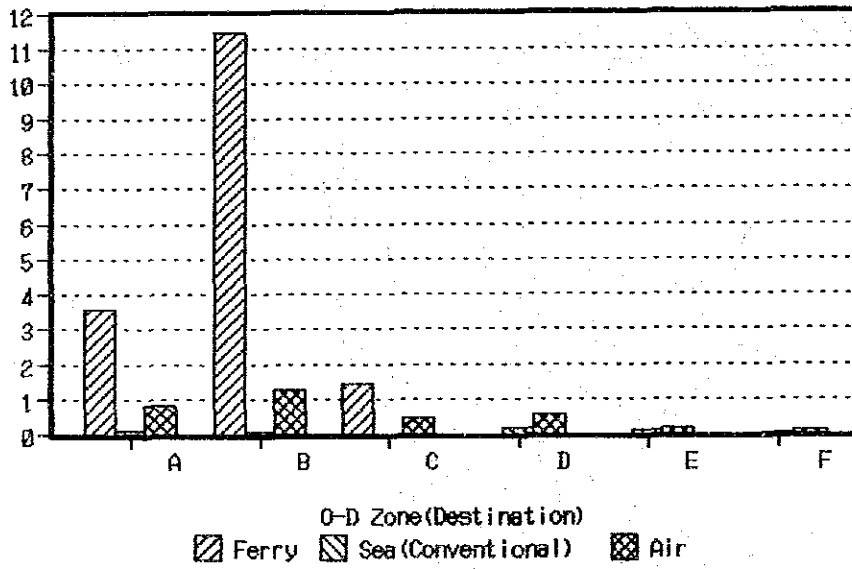


Fig. 1-4-15A Passenger's O-D by Each Mode From "B" Zone (1,000,000)

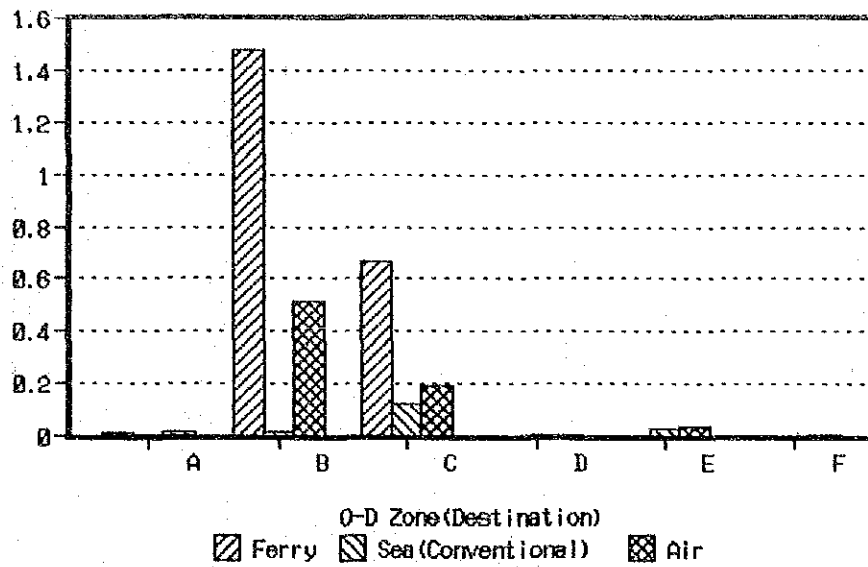


Fig. 1-4-16A Passenger's O-D by Each Mode From "C" Zone (1,000,000)

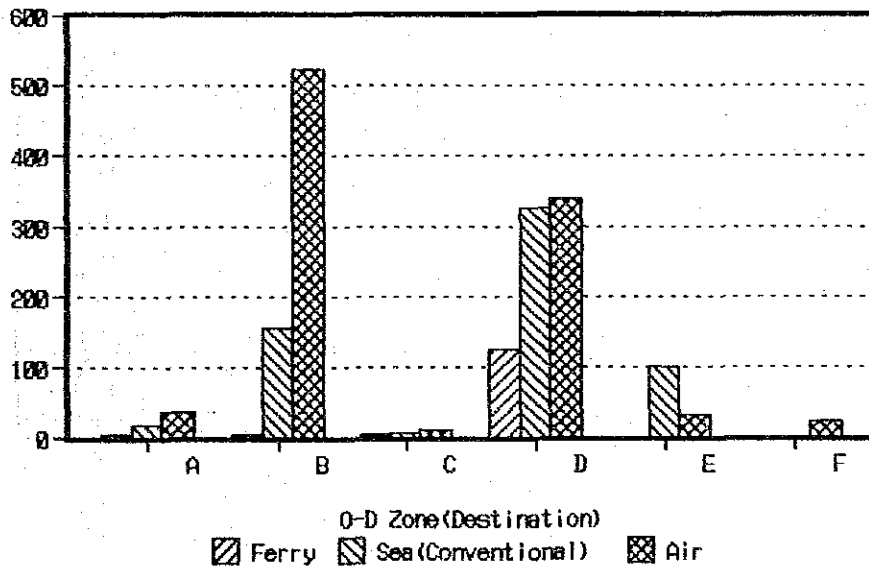


Fig. 1-4-17A Passenger's O-D by Each Mode From "D" Zone (1,000)

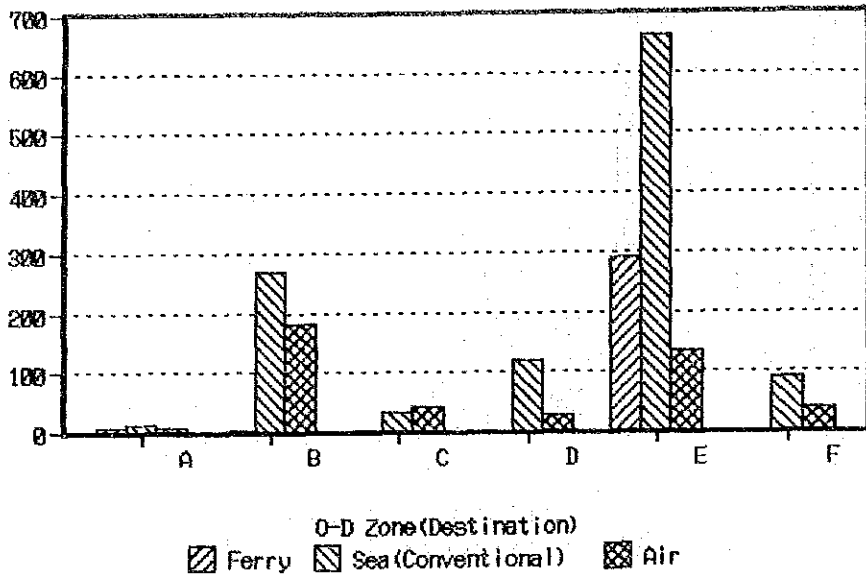


Fig. 1-4-18A Passenger's O-D by Each Mode From "E" Zone (1,000)

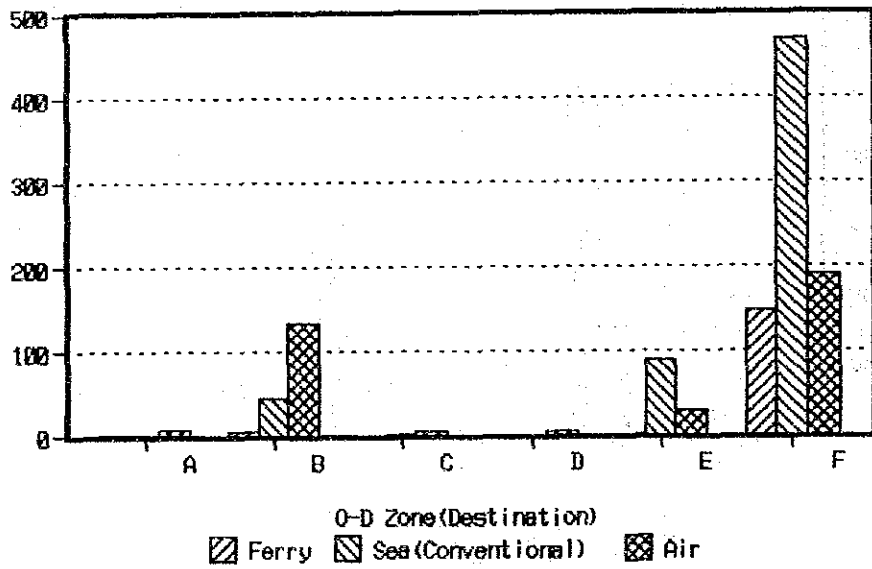


Fig. 1-4-19A Passenger's O-D by Each Mode From "F" Zone (1,000)

Table 1-4-15A Ferry Cargo's O-D

O-D	A	B	C	D	E	F	Total
A	0	1,215,655	1,012	0	511	0	1,217,178
B	1,184,024	535,059	495,844	0	184	0	2,215,111
C	0	386,632	22,096	0	0	0	408,728
D	0	0	0	0	0	0	0
E	0	0	0	0	40,240	0	40,240
F	0	0	0	0	0	0	0
Total	1,184,024	2,137,346	518,952	0	40,935	0	3,881,257

Source: O-D Study 1988, MOC

Table 1-4-16A Ferry Cargo's O-D (Percentage)

O-D	A	B	C	D	E	F	Total
A	0.00	31.32	0.03	0.00	0.01	0.00	31.36
B	30.51	13.79	12.78	0.00	0.00	0.00	57.07
C	0.00	9.96	0.57	0.00	0.00	0.00	10.53
D	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E	0.00	0.00	0.00	0.00	1.04	0.00	1.04
F	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	30.51	55.07	13.37	0.00	1.05	0.00	100.00

Source: O-D Study 1988, MOC

Table 1-4-17A Sea Transportation Cargo's O-D

O-D	A	B	C	D	E	F	Total
A	15,648,700	18,061,900	18,300	959,000	272,900	109,100	35,069,900
B	6,844,800	4,620,500	477,500	2,098,100	1,494,400	614,700	16,150,000
C	19,900	447,000	99,700	8,800	12,800	2,800	591,000
D	1,276,500	8,235,500	674,000	5,909,300	2,738,200	1,034,900	19,868,400
E	58,100	754,900	581,200	1,210,000	2,169,500	478,900	5,252,600
F	2,200	1,414,700	10,600	247,800	2,228,700	1,053,400	4,957,400
Total	23,850,200	33,534,500	1,861,300	10,433,000	8,916,500	3,293,800	81,889,300

Source: O-D Study 1988, MOC

Table 1-4-18A Sea Transportation Cargo's O-D (Percentage)

O-D	A	B	C	D	E	F	Total
A	19.11	22.06	0.02	1.17	0.33	0.13	42.83
B	8.36	5.64	0.58	2.56	1.82	0.75	19.72
C	0.02	0.55	0.12	0.01	0.02	0.00	0.72
D	1.56	10.06	0.82	7.22	3.34	1.26	24.26
E	0.07	0.92	0.71	1.48	2.65	0.58	6.41
F	0.00	1.73	0.01	0.30	2.72	1.29	6.05
Total	29.12	40.95	2.27	12.74	10.89	4.02	100.00

Source: O-D Study 1988, MOC

單位:百万

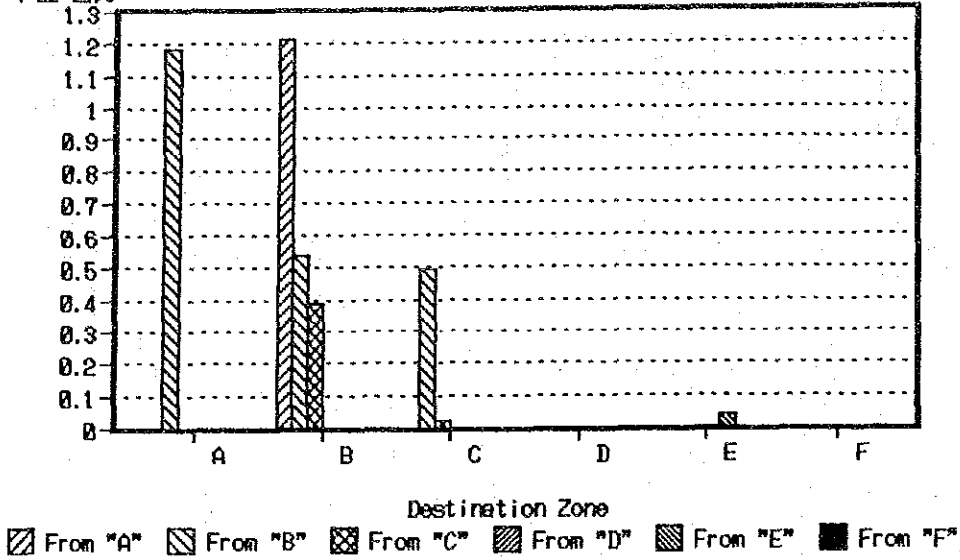


Table 1-4-32A Ferry Cargo's O-D
(1,000,000 ton)

單位:百万

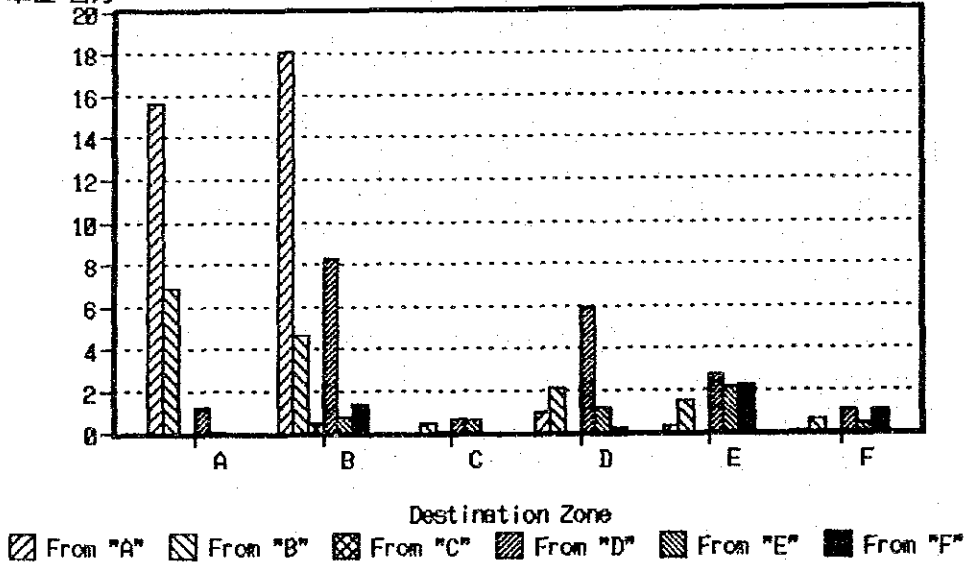


Table 1-4-33A Sea Transp. Cargo's O-D
(1,000,000 ton)

Origin: 8171-Kod. Ambon

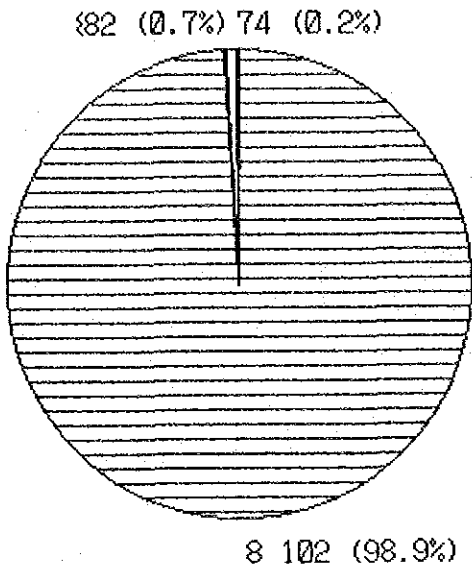


Fig. 1-4-20A O-D of Ferry Passenger

Origin: 8102-Kab. Maruku Tengah

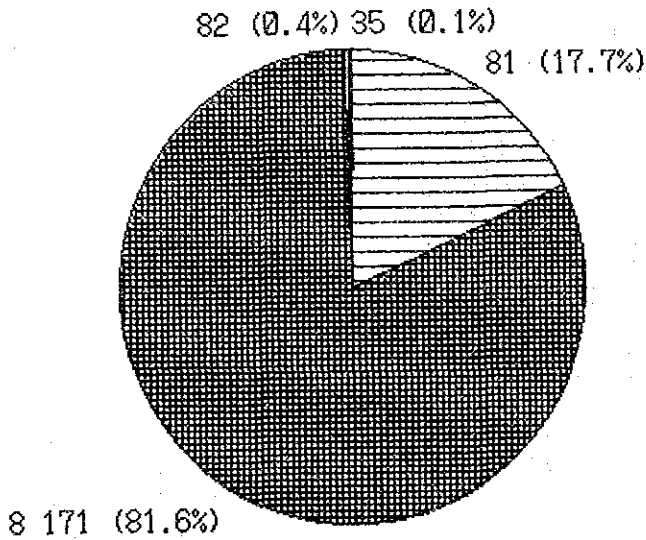


Fig. 1-4-21A O-D of Ferry Passenger

Code	Province
11	Daerah Istimewa Aceh
12	Sumatera Utara
13	Sumatera Barat
14	Riau
15	Jambi
16	Sumatera Selatan
17	Bengkulu
18	Lampung
31	DKI JAYA
32	Jawa Barat
33	Jawa Tengah
34	DI Yogyakarta
35	Jawa Timur
51	Bali
52	Nusa Tenggara Barat
53	Nusa Tenggara Timur
54	Timor Timur
61	Kalimantan Barat
62	Kalimantan Tengah
63	Kalimantan Selatan
64	Kalimantan Timur
71	Sulawesi Utara
72	Sulawesi Tengah
73	Sulawesi Selatan
74	Sulawesi Tengah
81	Maluku
82	Irian Jaya

Origin: 5303-Kab. Kupang

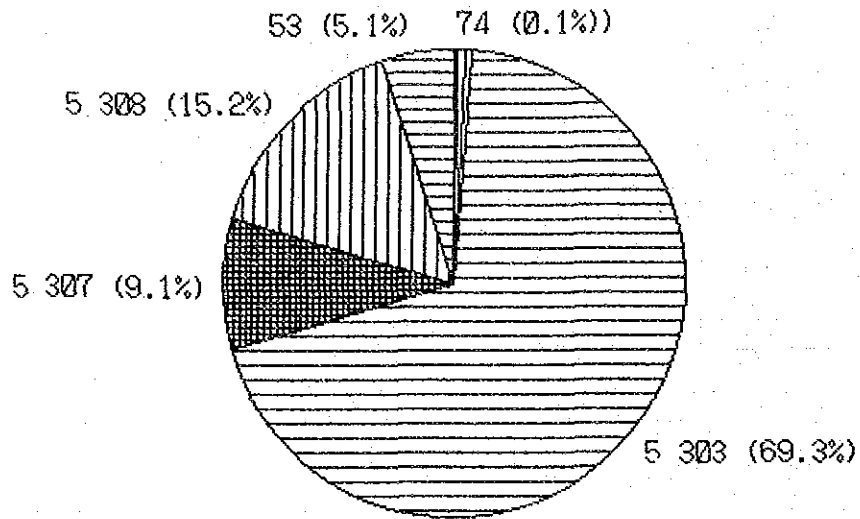


Fig. 1-4-22A O-D of Ferry Passenger

Origin: 5307-Kab. Alor

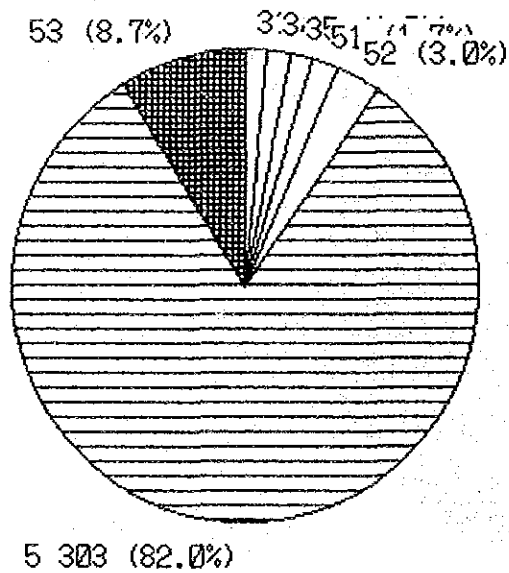


Fig. 1-4-23A O-D of Ferry Passenger

Origin: 5308-Kab. Flores Timur

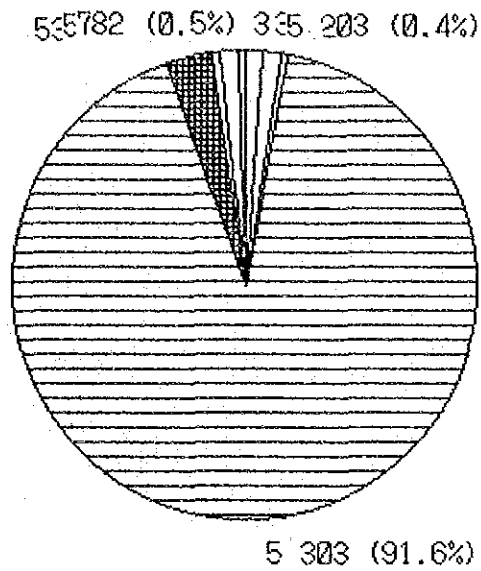


Fig. 1-4-24A O-D of Ferry Passenger

Origin: 7371-Kod. Ujunpandang

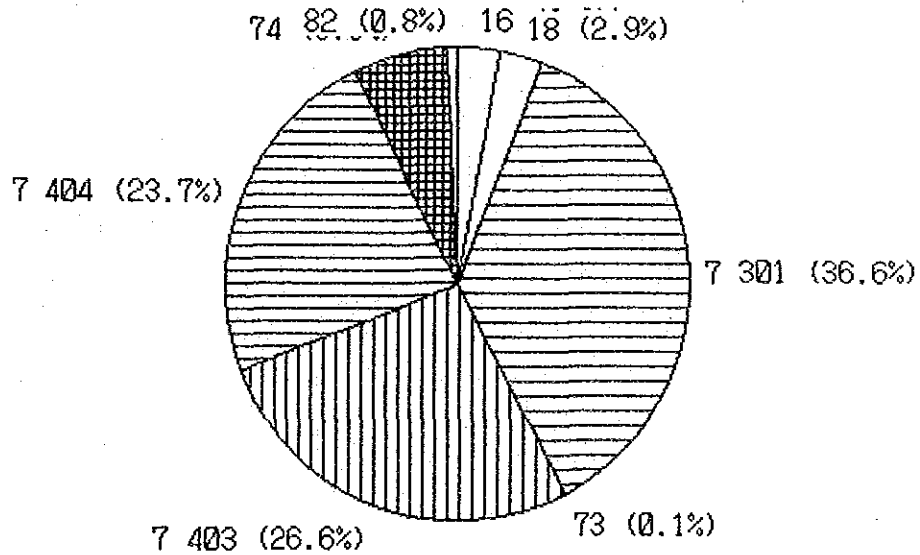


Fig. 1-4-25A O-D of Ferry Passenger

Origin: 7403-Kab. Kendari

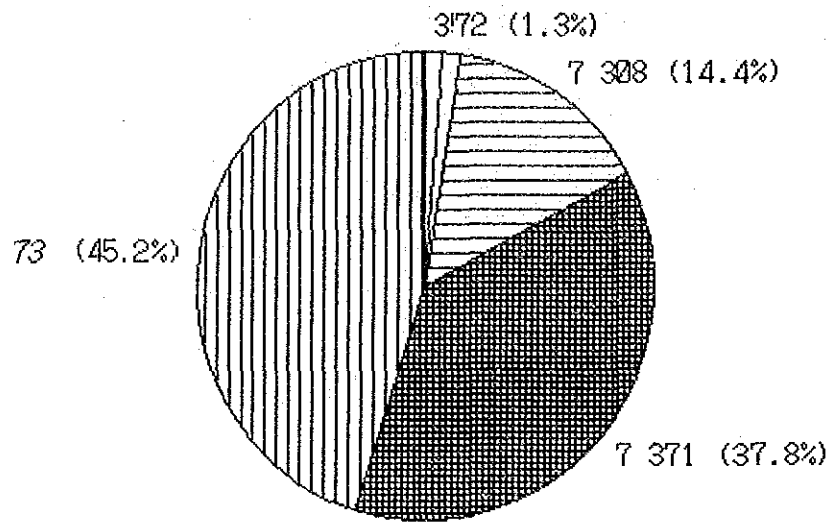


Fig. 1-4-26A O-D of Ferry Passenger

Origin: 7404-Kab. Kolaka

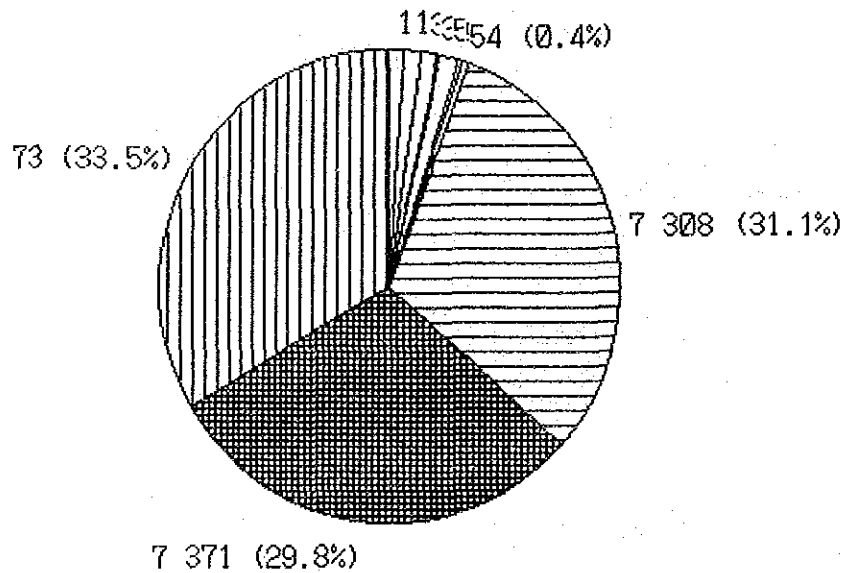


Fig. 1-4-27A O-D of Ferry Passenger

Origin: 1672-Kod.Pangkal Pinang

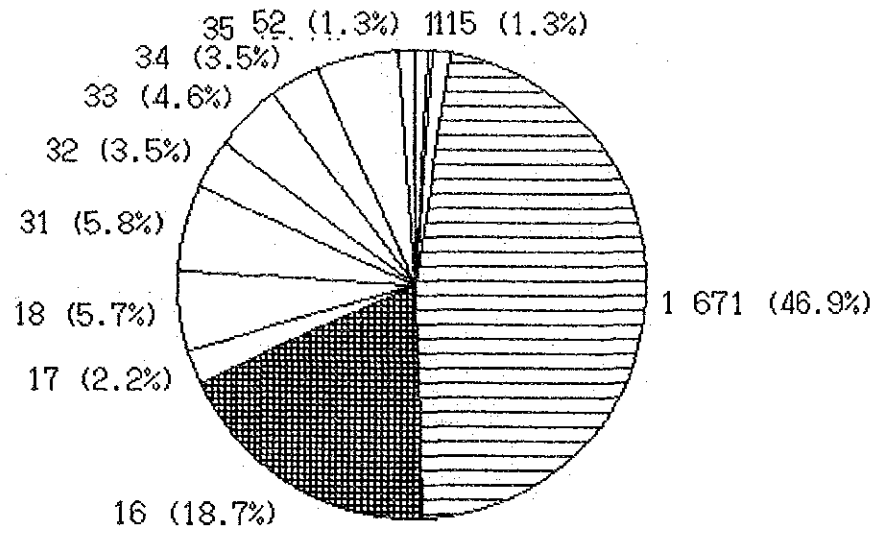


Fig. 1-4-28A O-D of Ferry Passenger

Origin: 1607-Kab. Bangka

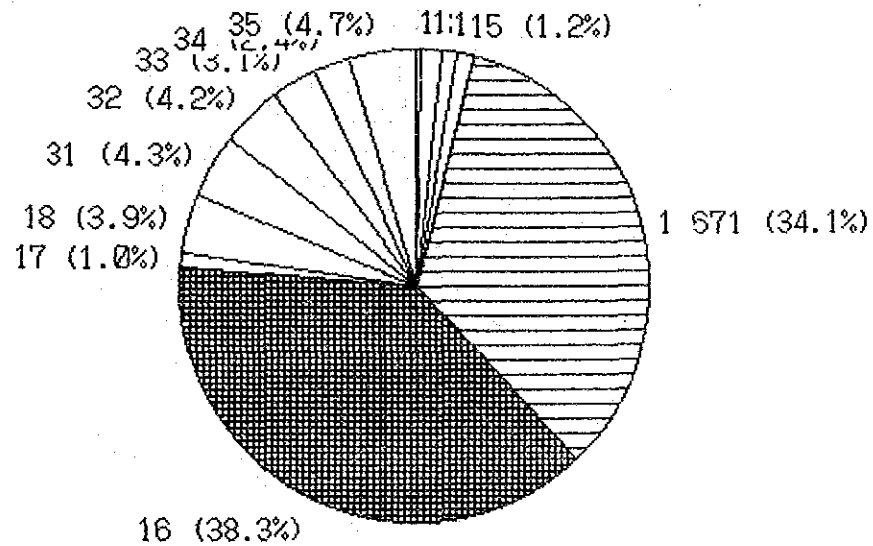


Fig. 1-4-29A O-D of Ferry Passenger

Origin; 1608-Kab. Belitung

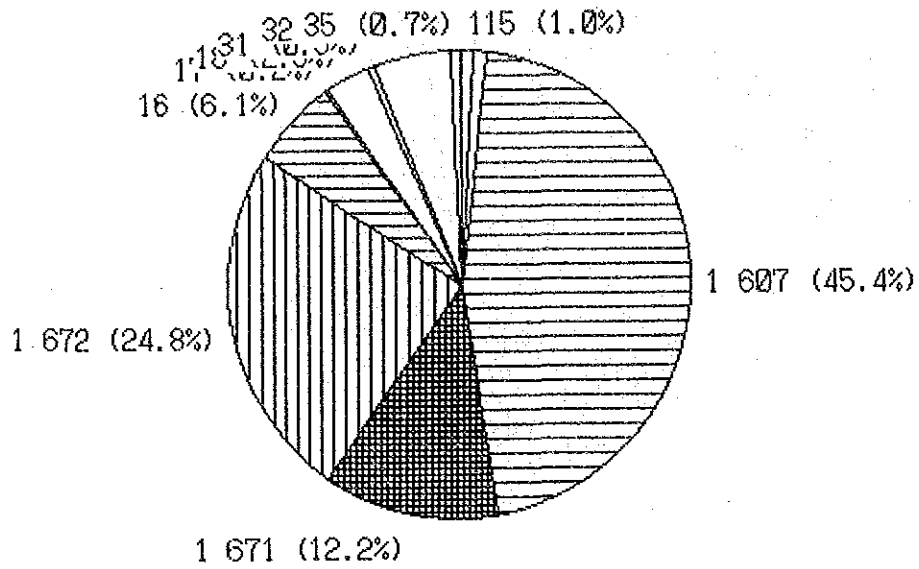


Fig. 1-4-30A O-D of Ferry Passenger

Origin; 1671-Kod. Palembang

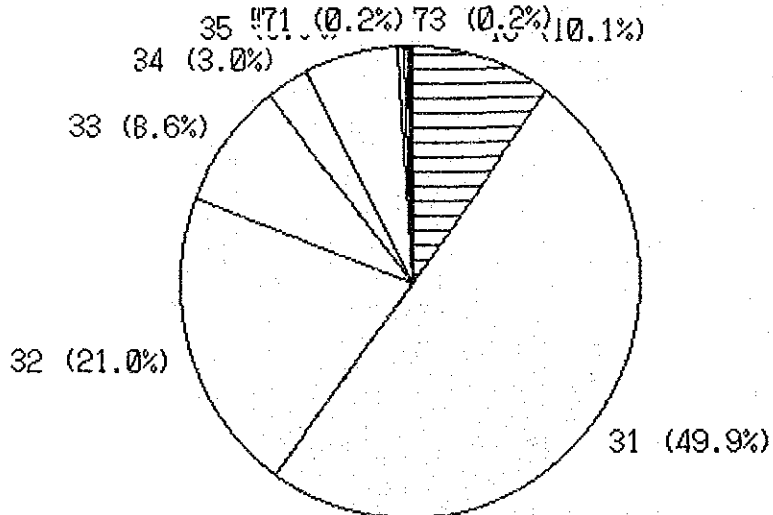


Fig. 1-4-31A O-D of Ferry Passenger

Table 1-4-19A Ferry Cargo's O-D of Principal Regions

Code		Cargo V.	
Origin	Destin.	Volume	%
18	31	514,904	68.0
	32	219,423	29.0
	33	15,437	2.0
	34	2,582	0.3
	35	3,886	0.5
	51	511	0.1
	71	511	0.1
	Total	757,254	100.0
31	11	479	0.0
	12	155,979	15.6
	13	92,500	9.3
	14	33,083	3.3
	15	40,493	4.1
	16	163,255	16.4
	17	9,534	1.0
	18	470,285	47.1
	35	984	0.1
	51	29,650	3.0
	52	1,350	0.1
	53	31	0.0
		Total	997,623
35	12	3,177	0.3
	13	458	0.0
	15	367	0.0
	16	2,744	0.3
	18	10,318	1.0
	31	5,994	0.6
	32	1,140	0.1
	33	25,458	2.5
	34	403	0.0
	35	324,936	32.4
	51	544,071	54.3
	52	82,822	8.3
	54	305	0.0
73	184	0.0	
	Total	1,002,377	100.0

Source: O-D study 1988, MOC

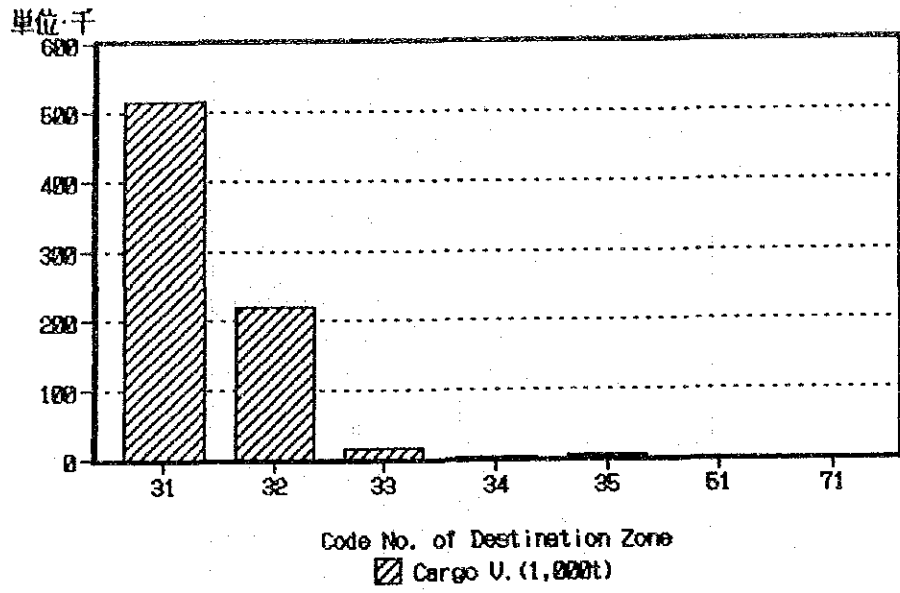


Fig. 1-4-34A Ferry Cargo's O-D From Code Zone No.18

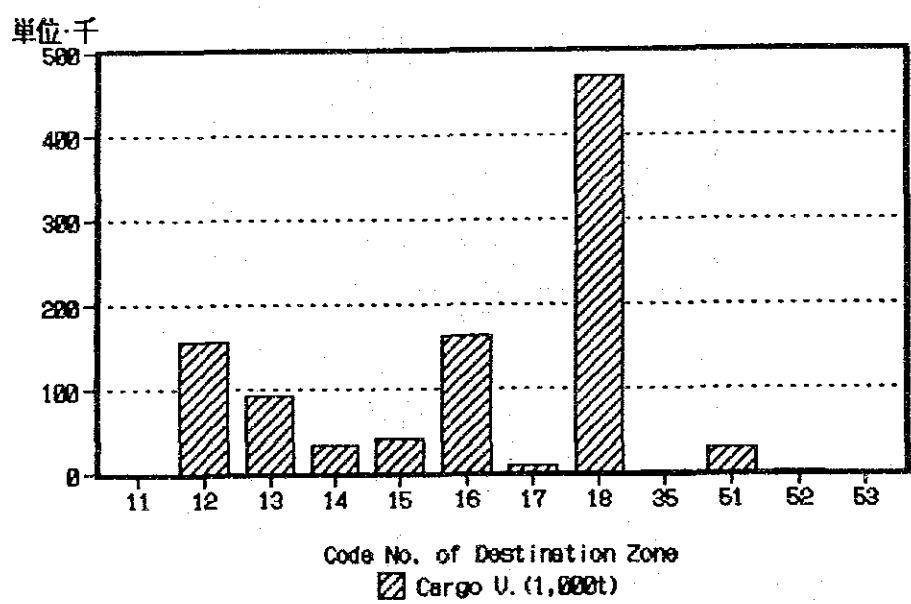


Fig. 1-4-35A Ferry Cargo's O-D From Code Zone No.31

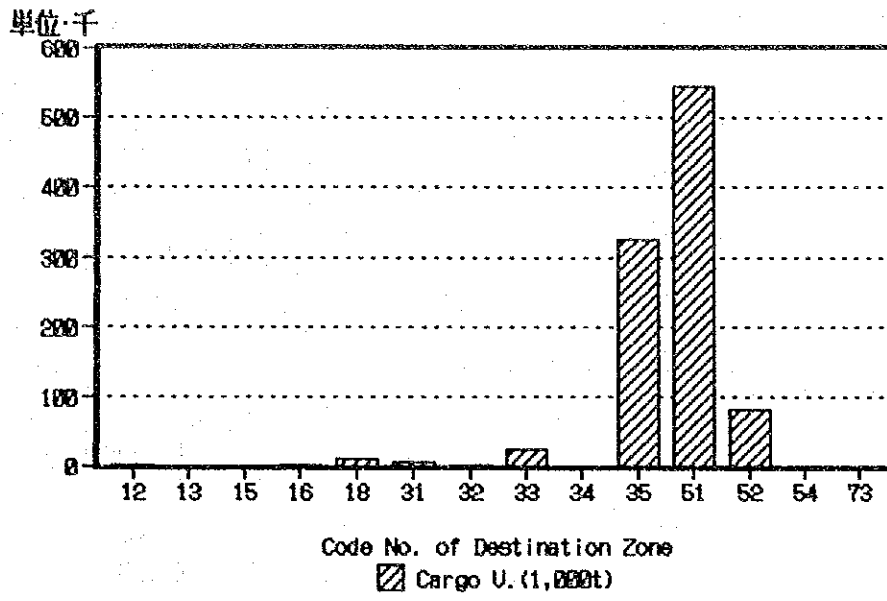


Fig. 1-4-36A Ferry Cargo's O-D From Code Zone No.35

Table 2-1-1A Number of Population by Province/Kabupaten

Population : Province(*1000)/Kabupaten							
	1971	1980	1986	1987	1988	1989	1990
Maluku Prov.	1,090	1,411	1,667	1,717	1,766	1,814	1,858
Irian Jaya Prov.	923	1,174	1,485	1,528	1,559	1,592	1,641
East Nusa Tenggara Pro	2,295	2,737	3,056	3,087	3,128	3,169	3,269
South East Sulawesi Pr	714	942	1,191	1,212	1,237	1,262	1,356
South Sulawesi Prov.	5,181	6,062	6,545	6,600	6,678	6,830	6,981
South Sumatera Prov.	3,441	4,630	5,672	5,784	6,018	6,112	6,277
Route-1,7 : Maluku Province							
Kab.Maluku Tengah			527,236	539,294	553,811	558,037	591,066
Kab.Maluku Utara			496,932	505,861	516,339	527,058	561,354
Kot.Ambon			234,490	241,367	242,634	246,568	276,280
Route-2 : Irian Jaya Province							
Kab.Biak Numfor			82,424	85,206	86,834	87,649	90,904
Kab.Yapen Waropen			59,394	60,379	61,210	61,676	67,129
Kab.Paniai			213,666	216,523	219,045	225,228	223,337
Route-3 : East Nusa Tenggara Province							
Kab.Alor			136,536	136,928	137,521	138,944	144,629
Kab.Flores Timur			272,913	272,061	272,750	273,221	265,759
Kab.Kupang			467,155	478,034	486,872	492,529	522,944
Route-4,5,6,8 : South East Sulawesi Province							
Kab.Buton			367,494	373,795	379,731	383,695	395,653
Kab.Kendari			423,442	429,118	435,731	446,437	488,392
Kab.Kolaka			197,084	203,744	215,638	219,731	239,682
Kot.Kendari			112,844	114,180	116,295	118,280	144,404
Route-8 : South Sulawesi Province							
Kab.Bone			643,924	644,696	648,658	649,065	610,315
Kod.Ujungpandang			778,581	806,129	813,047	862,965	912,883
Route-9 : South Sumatera Province							
Kab.Bangka			436,697	444,837	451,849	457,785	487,196
Kab.Belitung			179,191	180,638	182,189	187,305	188,996
Kod.Palembang			849,912	880,721	883,546	948,859	1,144,279
Kod.Pangkalpinang			108,214	109,770	110,640	113,171	114,108

NO.1	1986	1987	1988	1989	1990
Kecamatan Salahutu(Hunimua)		32,415	34,105	34,917	37,244
Ambon island		326,273	328,881	335,234	367,790
Kecamatan Kairatu(Waipirit)		41,149	42,850	43,662	51,045
Seram island		274,266	285,135	286,086	314,793
NO.2	1986	1987	1988	1989	1990
Kecamatan Biak Kota(Biak)	41,856	43,623	44,176	44,819	48,799
Biak island	67,015	69,118	70,855	71,741	75,343
Kecamatan Yapen Selatan(Serui)	23,884	24,222	24,428	24,566	28,989
Yapen island	44,404	45,024	45,599	45,921	50,766
Kecamatan Nabire(Nabire)	31,779	33,546			38,411
NO.3	1986	1987	1988	1989	1990
Kecamatan Kopeta Kalabahi	22,086	22,082	22,102	23,208	25,112
Alor island	104,177	104,800	105,252	106,623	110,585
Kecamatan Larantuka(Larantuka)	31,682	31,937	32,732	33,208	33,562
NO.4	1986	1987	1988	1989	1990
Kecamatan Poleang Timur(Banbaea)	-	16,264	16,352	16,368	17,230
Kecamatan Kabaena(Sikeli)	-	12,013	11,905	12,186	12,325
Kabaena island	-	25,114	25,185	25,985	26,451
NO.5	1986	1987	1988	1989	1990
Kecamatan Kabaena Timur(Balo)	-	13,101	13,280	13,799	14,126
Kecamatan Mawasangka(mawasangka)	24,760	25,025	25,370	25,715	26,995
NO.6	1986	1987	1988	1989	1990
Kecamatan Wawoni(Langara)	-		9,304	9,525	10,174
Wawoni island	18,612		19,462	19,879	21,051
NO.7	1986	1987	1988	1989	1990
Kecamatan Morotai Selatan(Daruba)		25,719	25,826	26,251	26,639
Morotai island	41,821	41,031	42,646		44,328
Kecamatan Tobelo(Tobelo)	30,973	34,127	36,830	41,042	41,140
NO.8	1986	1987	1988	1989	1990
Kecamatan Tanete Riatang(Bajoe)	59,919	59,958	59,837	60,026	61,679
Kecamatan Kolala(Kolaka)		28,801	29,493		33,522
NO.9	1986	1987	1988	1989	1990
Kecamatan Mentok(Kayaarang)	43,358				44,821
Kecamatan Toboali(Sedai)	44,521				54,066
Bangka island	544,911	554,607	562,489	570,956	601,304
Kecamatan Membalong(Telukgambia)		15,291	15,517	15,677	16,033
Belitung island	179,191	180,638	182,189	187,305	188,996

Table 2-1-2A Gross Regional Domestic Product of Maluku in thousand rupiah

No.	Sector	1987	1988	1989
1.	Agriculture	383,561,354	425,116,259	469,841,258
		271,424,031	274,645,156	281,953,411
2.	Mining	27,020,851	60,152,606	114,506,185
		33,969,584	36,013,640	37,676,644
3.	Industry	116,348,928	140,017,892	161,515,242
		72,738,328	81,664,378	89,050,121
4.	Electricity, & Water Supply	4,319,277	4,904,963	5,531,017
		3,355,784	3,806,913	4,086,976
5.	Construction	15,786,543	22,097,115	26,521,509
		11,959,502	15,239,390	16,575,942
6.	Trade	201,737,303	231,913,016	276,655,887
		139,182,352	148,922,729	160,468,240
7.	Transport & Communication	43,403,115	48,187,567	50,412,674
		35,380,251	38,469,290	40,004,905
8.	Bank & Other Financial Office	21,502,902	59,577,948	76,599,232
		16,396,409	40,601,186	48,878,081
9.	House Rental	15,843,500	16,975,197	16,267,036
		14,084,363	14,447,070	14,835,569
10.	Government	92,132,531	99,639,499	106,645,600
		62,065,414	66,677,365	70,315,148
11.	Services	16,921,531	19,905,159	23,634,386
		13,307,545	13,887,970	14,515,349
Total		940,249,995	1,130,027,366	1,332,560,946
		673,863,563	734,375,087	778,378,386

1983 : 478,678,055 thousand rupiah

upper : at current prices

lower : at constant 1983 prices

Table 2-1-3A Gross Regional Domestic Product of Kabupaten Maluku Tengah
in thousand rupiah

No.	Sector	1986	1987	1988	1989
1.	Agriculture	81,626,627	100,503,036	100,679,137	125,820,002
		70,925,800	74,370,440	76,017,945	78,934,694
2.	Mining	5,321,005	8,424,836	11,235,302	11,235,302
		8,113,253	11,856,247	12,103,165	12,199,336
3.	Industry	21,383,095	43,845,674	56,895,847	14,427,521
		17,868,645	27,114,184	32,859,454	34,967,343
4.	Electricity, & Water Supply	297,867	386,464	436,609	516,198
		224,434	277,340	308,860	354,540
5.	Construction	2,439,911	1,760,697	3,512,170	4,427,921
		2,050,345	1,333,861	2,422,186	2,767,451
6.	Trade	37,051,762	49,700,001	57,629,542	68,993,069
		30,930,941	35,580,054	38,375,518	41,405,535
7.	Transport & Communication	6,832,891	7,250,443	6,942,630	7,140,163
		6,052,377	6,197,080	5,921,875	6,083,321
8.	Bank & Other	4,549	51,890	256,374	416,217
		2,390	39,365	177,872	270,533
9.	House Rental	2,779,469	2,986,499	3,200,389	3,443,355
		2,588,443	2,654,903	2,723,273	2,796,505
10.	Government	14,762,204	15,815,289	17,438,664	18,412,087
		10,762,497	10,654,027	11,669,828	12,139,728
11.	Services	3,053,390	3,469,280	4,136,517	5,019,870
		2,626,059	2,702,092	2,860,470	3,023,014
Total		175,552,477	234,274,109	272,413,122	312,839,274
		152,145,184	172,773,593	185,440,446	194,942,000

1983 : 120,526,851 thousand rupiah
upper : at current prices
lower : at constant 1983 prices

Table 2-1-4A Gross Regional Domestic Product of Kabupaten Maluku Utara
in thousand rupiah

No.	Sector	1986	1987	1988	1989
1.	Agriculture	102,594,033	134,994,163	145,801,528	158,091,638
		80,811,241	93,206,289	90,480,056	92,994,387
2.	Mining	631,539	990,585	1,436,403	1,650,167
		510,546	780,194	935,608	1,049,851
3.	Industry	30,889,498	54,234,204	61,581,357	71,736,720
		25,983,206	34,092,785	36,193,444	39,764,081
4.	Electricity, & Water Supply	802,474	942,028	1,073,808	1,274,595
		615,264	729,453	802,877	900,367
5.	Construction	2,271,017	2,323,513	3,322,751	4,155,650
		1,908,435	1,760,238	2,291,553	2,597,281
6.	Trade	38,693,666	51,787,632	60,811,318	73,019,200
		31,177,237	36,126,362	39,799,833	42,927,090
7.	Transport & Communication	9,931,452	11,812,673	12,420,645	12,701,842
		8,712,936	9,340,767	9,713,366	9,927,577
8.	Bank & Other Financial Office	1,955,376	4,760,384	1,609,392	2,257,922
		1,661,642	3,367,664	1,094,729	1,413,584
9.	House Rental	3,330,941	3,579,046	3,835,374	4,126,523
		3,102,012	3,181,658	3,263,593	3,351,355
10.	Government	8,826,820	16,318,052	17,120,692	18,084,961
		6,435,259	10,992,715	11,457,044	11,924,043
11.	Services	4,448,323	4,918,677	5,572,880	6,708,091
		3,845,978	3,867,667	3,392,017	4,127,949
Total		204,375,159	286,660,957	314,595,048	353,815,694
		164,763,756	197,445,792	199,903,620	210,977,515

1983 : 130,341,025 thousand rupiah
upper : at current prices
lower : at constant 1983 prices

Table 2-1-5A Gross Regional Domestic Product of Kotamadya Ambon
in thousand rupiah

No.	Sector	1986	1987	1988
1.	Agriculture	29,821,650	29,732,785	30,386,474
		21,972,066	20,041,664	19,670,678
2.	Mining	2,743,280	1,928,823	2,659,793
		2,281,896	1,561,109	1,999,363
3.	Industry	8,749,339	14,309,024	18,998,207
		6,473,121	8,560,396	10,508,446
4.	Electricity, & Water Supply	2,485,012	2,741,339	3,063,796
		1,941,023	2,173,082	2,444,083
5.	Construction	13,184,777	9,255,912	12,783,521
		11,079,644	7,012,054	8,816,222
6.	Trade	45,103,018	60,139,953	64,681,437
		35,708,017	41,822,119	42,371,654
7.	Transport & Communication	19,131,569	21,915,356	25,588,590
		17,094,558	17,904,020	20,321,736
8.	Bank & Other Financial Office	10,505,683	17,698,473	58,551,240
		8,967,445	12,518,276	38,859,631
9.	House Rental	6,483,464	6,966,387	7,465,313
		6,037,869	6,192,894	6,352,891
10.	Government	39,492,198	41,866,166	44,808,710
		28,792,083	28,203,295	29,844,891
11.	Services	3,993,087	4,416,772	5,203,580
		3,452,948	3,510,930	3,683,657
Total		181,693,077	210,970,990	274,190,661
		143,800,670	149,499,839	184,872,737

1983 : 124,510,195 thousand rupiah
upper : at current prices
lower : at constant 1983 prices

Table 2-1-6A Length of Road In Maluku Province in 1990 (km)

DESCRIPTION	STATE ROAD	PROVINCE ROAD	KABUPATEN ROAD
1. Type of surface :			
a. Asphalted	155.84	752.32	1,170.25
b. Gravel	205.23	343.36	551.52
c. Earth	34.00	82.76	653.40
d. Unspecified	-	35.00	204.83
Total	395.07	1,186.44	2,580.00
2. Road condition :			
a. Good	50.37	18.24	954.88
b. Moderate	338.70	901.31	1,015.87
c. Damage	6.00	231.89	430.20
d. Heavy damage	-	35.00	179.05
Total	395.07	1,186.44	2,580.00

Sources : Public Work Office of Maluku Province

Table 2-1-7A Length of Road in Kabupaten Maluku Tengah (km)

DESCRIPTION	1985	1986	1987	1988	1989	1990
1. Type of surface :						
a. Asphalted	144.4	144.4	249.4	29.7	429.5	462.5
b. Gravel	60.9	60.9	73.9	299	286	327
c. Earth	-	-	373.9	362	-	-
d. Unspecified	189.5	189.5	-	-	-	-
Total	394.8	394.5	697.2	958	715.5	789.5
2. Road condition :						
a. Good	101.9	101.9	225.0	205	116	190
b. Moderate	42.5	42.5	98.3	151	324.5	324.5
c. Damage	60.9	60.9	373.9	249	207	207
d. Heavy damage	189.5	189.5	-	363	68	68
Total	394.8	398.8	697.2	958	715.5	789.5

Sources : Public Work Official of each Kabupaten/Kotamadya

Table 2-1-8A Length of Road in Kabupaten Maluku Utara (km)

DESCRIPTION	1985	1986	1987	1988	1989	1990
1. Type of surface :						
a. Asphalted	211.0	230.2	232.18	235	237.93	237.93
b. Gravel	92.3	82.6	85.08	184.2	207.07	207.07
c. Earth	121.5	136.0	154	161	-	-
d. Unspecified	109.1	101.8	99.80	-	62.5	62.5
Total	533.9	550.6	571.06	582.2	507.50	507.50
2. Road condition :						
a. Good	130.6)	265.9	-	232.08	16.55	16.55
b. Moderate	200.0)		340.40	145.05	361.45	361.45
c. Damage	94.2)	284.7	230.66	116.04	44.5	44.5
d. Heavy damage	109.1)		-	87.03	85.0	85.0
Total	533.9	550.6	571.06	582.2	507.50	507.50

Sources : Public Work Official of each Kabupaten/Kotamadya

Table 2-1-9A Number of Vehicles in Maluku Province

DESCRIPTION	1985	1986	1987	1988	1989	1990
1. Passenger car	1,736	2,556	3,344	3,625	3,976	3,949
2. Heavy cars(trucks)	5,511	2,284	5,379	5,713	5,915	5,245
3. Motorcycle	18,141	19,204	53,642	34,398	35,052	16,800
Total	25,388	24,088	62,365	43,736	44,943	25,984

Sources : Traffic Directorate POLDA Maluku

Table 2-1-10A Number of Vehicles in Kabupaten Maluku Tengah

DESCRIPTION	1985	1986	1987	1988	1989
Passenger car	21	23	32	25	25
Heavy cars(trucks)	80	158	422	479	519
Motorcycle	678	773	943	1,277	1,299
Total	779	954	1,397	1,781	1,843

Sources : POLRES(Police District)Kabupaten Maluku Tengah

Table 2-1-11A Ferry Transportation Volume of Hunimua - Waipirit Route

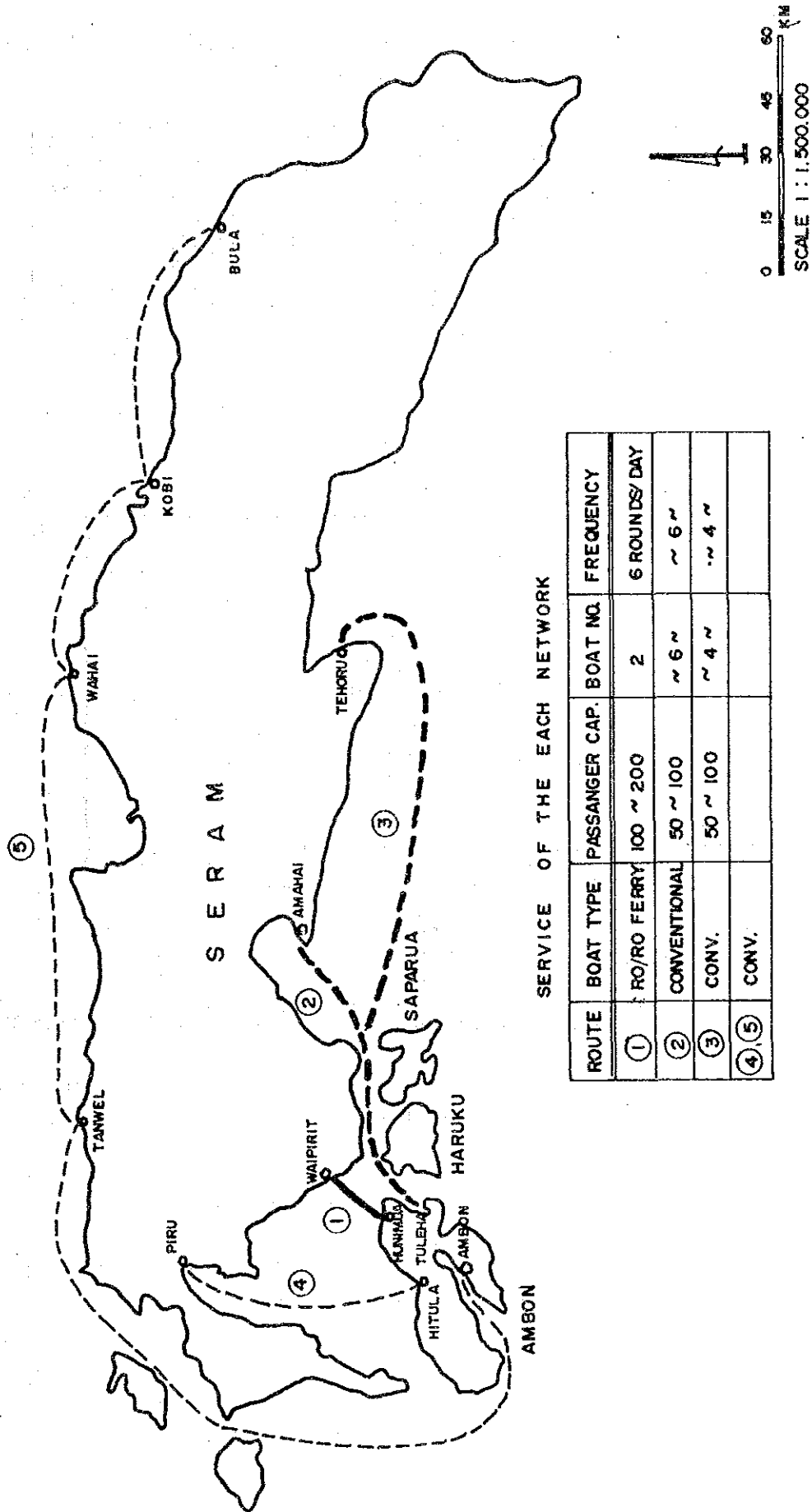
Year	Trip	Boat	Passenger	Vehicle-2 Roda-2	Vehicle-4 Roda-4	Cargo Ton
86	835	1	65,867	3,454	1,503	2,931
87	845	1	87,276	2,838	2,023	2,778
88	2,106	1	196,630	4,710	4,443	4,428
89	2,036	1	196,059	5,383	4,737	4,166
90	2,818	2	300,141	7,514	7,090	6,130
91	4,031	2	348,368	9,194	10,510	5,342

*Source: DGLT Regional Office

Table 2-1-12A Monthly Transportation Volume of Hunimua - Waipirit Route

Month	Trip No.	Passenger	Vehicle-1	Vehicle-2	Cargo Ton
Jan.	372	32,757	914	966	583
Feb.	336	28,627	872	890	473
Mar.	372	31,700	848	919	479
Apr.	333	31,136	861	786	477
May	370	27,885	698	800	301
Jun	360	32,018	420	627	346
Jul.	366	30,614	575	778	318
Aug.	372	23,604	506	814	304
Sep.	360	24,976	914	857	351
Oct.	213	24,072	501	985	526
Nov.	228	27,989	1,322	977	713
Dec.	349	32,990	763	1,111	471
Total	4,031	348,368	9,194	10,510	5,342

*Source: DGLT Regional Office



SERVICE OF THE EACH NETWORK

ROUTE	BOAT TYPE	PASSANGER CAP.	BOAT NO.	FREQUENCY
①	RO/RO FERRY	100 ~ 200	2	6 ROUNDS/DAY
②	CONVENTIONAL	50 ~ 100	~ 6 ~	~ 6 ~
③	CONV.	50 ~ 100	~ 4 ~	~ 4 ~
④, ⑤	CONV.			

Fig. 2-1-1A Sea Transportation Network (Seram Isl. - Ambon Isl.)

Table 2-1-13A Passenger Transportation Volume by Ferry/Conventional Mode Between Ambon Isl. and Seram Isl.

Year	Hun.~Waip.	Tulehu	Amahai	Tehoru	Piru	Wahai
1986	65,867	275,616	137,322	28,070	20,603	18,688
87	87,276	284,599	111,822	19,984	22,779	14,836
88	196,630	193,039	124,591	25,181	21,710	16,772
89	196,059	237,647	127,000	19,974	17,000	19,000
90	300,141	241,911	129,747	14,419	12,628	22,393
91	348,368	290,791	200,093	14,000	12,000	22,000

*Source: DGLT/DGSC Regional Office

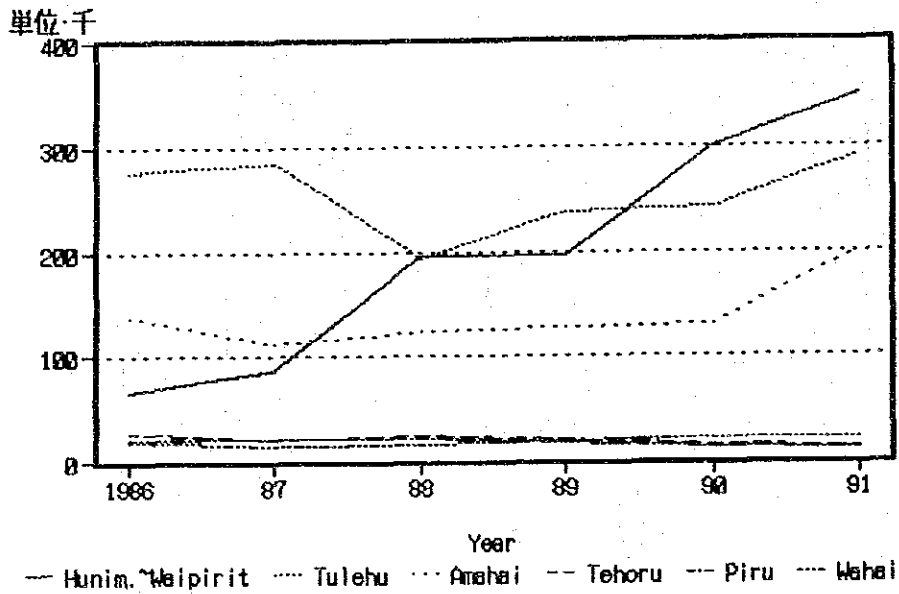


Fig. 2-1-2A Passenger Volume between Ambon Isl. and Seram Isl. (1,000)

Table 2-2-1A Gross Regional Domestic Product of Irian Jaya
in million rupiah

No.	Sector	1986	1987	1988	1989	1990
1.	Agriculture	246,467.32	296,318.77	334,086.64	393,280.91	427,374.52
		189,259.54	202,825.00	220,199.32	238,723.16	230,679.32
2.	Mining	473,670.49	426,755.04	468,368.80	669,591.07	829,467.71
		333,084.81	313,639.63	329,309.10	332,214.12	359,056.33
3.	Industry	9,207.26	12,158.44	14,231.63	43,817.47	52,322.55
		7,177.77	7,808.99	8,689.73	27,159.50	30,542.12
4.	Electricity, & Water Supply	5,892.68	7,143.24	7,877.60	9,095.85	10,273.30
		4,342.77	5,122.75	5,647.92	6,245.97	6,888.83
5.	Construction	55,808.15	63,242.44	77,037.89	89,662.96	104,213.30
		45,324.58	47,292.10	56,466.95	64,309.80	72,703.65
6.	Trade	76,738.16	89,812.85	102,204.52	119,084.47	138,500.93
		67,524.44	78,858.95	85,939.68	96,985.30	106,840.39
7.	Transport & Communication	53,241.30	65,186.31	78,026.09	143,265.72	166,592.58
		41,006.07	47,981.97	56,470.36	97,152.19	110,960.89
8.	Bank & Other Financial Office	7,366.03	7,110.25	7,366.02	10,907.19	19,292.26
		6,193.58	6,074.44	5,750.21	7,187.06	12,499.01
9.	House Rental	5,122.87	6,360.05	6,600.24	14,367.51	15,983.93
		3,730.59	3,848.07	3,964.07	9,252.71	9,595.43
10.	Government	115,030.38	136,055.30	168,687.12	195,474.64	234,503.06
		99,267.21	106,494.51	121,382.45	138,339.58	158,835.39
11.	Services	30,489.19	32,455.91	35,220.60	43,088.10	48,169.10
		23,971.54	28,889.35	29,889.35	36,525.88	39,567.10
Total		1,079,033.8	1,142,598.6	1,299,707.2	1,731,635.9	2,046,693.2
		820,882.9	848,273.2	923,709.1	1,054,095.3	1,138,168.5

1983 : 852,165.83 million rupiah
upper : at current prices
lower : at constant 1983 prices

Table 2-2-2A Gross Regional Domestic Product of Kabupaten Biak Number
in million rupiah

No.	Sector	1986	1987	1988	1989	1990
1.	Agriculture	18,351.66	16,402.58	17,881.90	20,107.91	25,331.89
		14,138.67	12,820.33	14,596.86	15,454.89	17,163.36
2.	Mining	415.57	522.87	459.10	511.98	584.17
		323.55	374.16	353.25	387.80	427.59
3.	Industry	576.69	766.32	895.76	2,819.42	3,355.42
		410.98	361.81	507.34	1,658.39	1,861.49
4.	Electricity, & Water Supply	760.73	915.83	999.37	1,064.35	1,218.45
		536.40	646.88	703.18	723.44	798.50
5.	Construction	6,988.06	7,919.70	9,767.00	10,939.04	12,251.73
		5,675.35	5,921.72	7,158.98	7,858.42	8,428.66
6.	Trade	3,696.78	4,380.03	4,992.20	5,791.50	6,766.72
		3,015.04	3,636.52	3,962.11	4,372.83	4,927.66
7.	Transport & Communication	8,318.64	9,784.67	11,402.73	23,914.81	28,310.89
		6,530.48	7,433.72	8,541.77	16,759.48	19,675.97
8.	Bank & Other Financial Office	12.55	616.10	638.26	918.35	1,388.26
		10.55	492.01	465.75	605.10	899.42
9.	House Rental	293.39	364.25	371.57	812.06	890.79
		209.24	213.85	220.26	522.97	534.75
10.	Government	10,545.95	12,693.10	15,737.45	18,236.56	21,359.73
		8,601.75	9,228.02	10,518.10	11,987.48	13,345.17
11.	Services	3,934.02	3,296.86	3,577.70	4,314.33	5,022.42
		2,728.28	3,924.46	4,141.01	4,848.84	5,345.22
Total		53,894.04	57,662.31	66,723.31	89,430.31	106,480.47
		42,180.29	45,053.48	51,168.61	65,179.64	73,407.79

1983 : 28,632.77 million rupiah
upper : at current prices
lower : at constant 1983 prices

Table 2-2-3A Gross Regional Domestic Product of Kabupaten Yapen Waropen
in million rupiah

No.	Sector	1986	1987	1988	1989	1990
1.	Agriculture	7,237.92	6,360.25	7,419.12	7,864.37	8,719.64
		5,142.73	4,714.91	5,528.74	5,926.77	6,018.27
2.	Mining	260.28	304.26	287.54	320.67	366.24
		202.65	256.90	219.99	241.26	266.47
3.	Industry	389.80	475.19	577.43	1,321.83	1,606.71
		292.09	293.64	328.78	654.25	751.43
4.	Electricity, & Water Supply	117.74	138.21	151.85	177.58	193.72
		66.72	78.90	84.80	95.81	101.17
5.	Construction	3,008.52	3,409.61	4,327.06	4,688.51	5,215.66
		2,443.37	2,549.44	3,171.64	3,691.56	3,691.56
6.	Trade	1,617.09	1,898.20	2,156.14	2,533.79	2,917.24
		1,563.28	1,826.87	1,989.76	1,843.83	2,041.26
7.	Transport & Communication	712.34	812.91	956.03	2,532.10	2,905.75
		647.07	697.78	822.83	1,849.37	2,109.75
8.	Bank & Other Financial Office	23.80	38.03	39.40	219.19	333.05
		20.01	30.45	28.82	144.42	215.77
9.	House Rental	302.31	375.32	382.15	673.52	739.31
		215.09	219.87	226.47	433.75	443.82
10.	Government	9,014.85	10,545.58	13,074.85	15,151.14	18,524.16
		8,122.47	8,713.84	9,932.04	11,319.55	13,315.85
11.	Services	1,894.79	1,815.87	1,970.55	2,391.61	2,728.24
		1,283.22	1,713.84	1,927.66	2,370.60	2,613.28
Total		24,579.44	26,173.43	31,342.12	37,874.31	44,249.72
		19,998.70	21,209.45	24,261.53	28,571.17	31,568.63

1983 : 17,810.27 million rupiah

upper : at current prices

lower : at constant 1983 prices

Table 2-2-4A Gross Regional Domestic Product of Kabupaten Panai
in million rupiah

No.	Sector	1986	1987	1988	1989	1990
1.	Agriculture	35,640.69	43,203.18	47,706.64	54,234.17	53,348.38
		29,955.81	30,770.16	31,426.21	32,149.91	27,463.83
2.	Mining	267.45	377.55	385.87	462.42	520.36
		208.23	241.90	346.86	392.74	429.09
3.	Industry	520.26	690.05	806.39	3,077.58	3,674.54
		441.56	479.75	526.99	1,852.17	2,094.60
4.	Electricity, & Water Supply	152.05	216.25	249.07	322.01	454.10
		143.91	205.48	237.84	254.42	331.40
5.	Construction	4,544.38	5,150.23	6,371.38	8,448.17	9,252.58
		3,690.72	3,850.93	4,670.07	5,843.66	6,302.53
6.	Trade	5,882.59	6,874.89	7,784.59	8,895.04	9,723.98
		5,293.37	6,144.63	6,696.97	7,729.84	8,421.65
7.	Transport & Communication	1,592.13	1,749.07	2,082.25	4,916.22	6,027.67
		1,328.65	1,510.93	1,820.85	3,513.61	4,125.48
8.	Bank & Other Financial Office	-88.73	435.94	451.62	297.18	399.76
		-74.60	348.14	329.56	195.81	258.99
9.	House Rental	764.63	949.29	963.24	1,922.98	2,099.54
		544.03	553.79	570.41	1,238.41	1,260.39
10.	Government	10,358.43	12,457.05	15,444.78	17,897.41	21,706.96
		8,467.76	9,084.26	10,354.24	11,800.73	13,756.49
11.	Services	2,227.40	2,752.65	2,987.13	3,896.6	4,359.93
		1,600.82	1,948.64	2,056.16	1,636.89	2,836.30
Total		61,861.58	74,816.15	85,232.96	104,369.54	111,567.80
		51,600.26	55,138.61	59,036.16	67,808.19	67,280.75

1983 : 48,573.45 million rupiah
upper: at current prices
lower: at constant 1983 prices

Table 2-2-5A Length of Road in Irian Jaya Province in 1989 (km)

DESCRIPTION	STATE	PROVINCE	KABUPATEN	TOTAL
Type of surface :				
1. Asphalted	319.50	548.55	207.56	1,076.42
2. Gravel	196.50	767.89	823.85	1,773.97
3. Earth	29	318.76	1,806.03	2,259.88
Total	545	1,635.18	2,837.44	5,110.27

Table 2-2-6A Length of Road in Kabupaten Biak Numfor (km)

DESCRIPTION	1990		1989		1988		1987	
	Pro.	Kab.	Pro.	Kab.	Pro.	Kab.	Pro.	Kab.
Type of surface :								
1. Asphalted	146.650	139.029	114.000	119.91	132.75	92.63	131.75	52.11
2. Gravel	-	1.600	-	6.20	20.90	66.19	20.90	104.06
3. Earth	-	192.086	7.00	84.67	-	7.80	0.40	7.30
Road condition :								
1. Good	40.590	117.987	4.00	44.20	18.65	50.41	126.05	28.87
2. Moderate	106.060	20.586	96.00	54.99	114.10	73.21	11.81	29.65
3. Damage	-	194.141	21.00	111.59	20.90	43.00	15.14	104.99
Total	146.650	332.715	121.00	210.90	153.65	166.62	153.00	163.52

Table 2-2-7A Length of Road in Kabupaten yapen Waropen (km)

	1988	1989	1990
KABUPATEN ROADS			
1. Asphalted	22.75	22.76	24.158
2. Gravel	10.86	10.86	13.760
3. Earth	33.57	36.57	34.368
Total	69.18	70.18	72.286
KECAMATAN ROADS			
1. Asphalted	4.5	4.5	8.5
2. Gravel	7.4	6.4	2.9
3. Earth	165.2	168.4	168.9
4. Others	25.0	25.0	25.0
Total	202.6	205.3	205.3
Total			277.586

Table 2-2-8A Length of Road in Kabupaten Paniai (km)

DESCRIPTION	1986	1987	1988	1989	1990
1. Type of surface :					
a. Asphalted	34.18	67.73	79.46	87.597	96.819
b. Gravel	260.27	212.72	483.41	208.862	210.640
c. Earth	299.30	383.30	412.05	406.326	449.126
d. Unspecified	-	-	-	0.124	0.124
Total	593.75	663.74	974.92	702.909	756.709
2. Road condition :					
a. Good	448.75	67.73	79.46	7.448	46.997
b. Moderate	110.00	596.02	50.00	242.893	244.206
c. Damage	35.00	-	845.47	449.455	463.706
d. Heavy damage	-	-	-	-	1.800
d. Unspecified	-	-	-	3.113	-
Total	593.75	663.75	947.93	702.909	756.709

Sources : Public Work Office of Kabupaten Paniai

Table 2-2-9A Number of Vehicles in Irian Jaya Province

DESCRIPTION	1985	1986	1987	1988	1989
1. Passenger car	7,224	7,253	8,403	8,403	5,967
2. Buses	443	462	263	263	4,036
3. Cart car	3,520	3,430	3,608	3,608	4,713
4. Motorcycle	24,633	23,029	24,672	24,672	29,366
Total	35,840	34,174	36,946	36,946	44,082

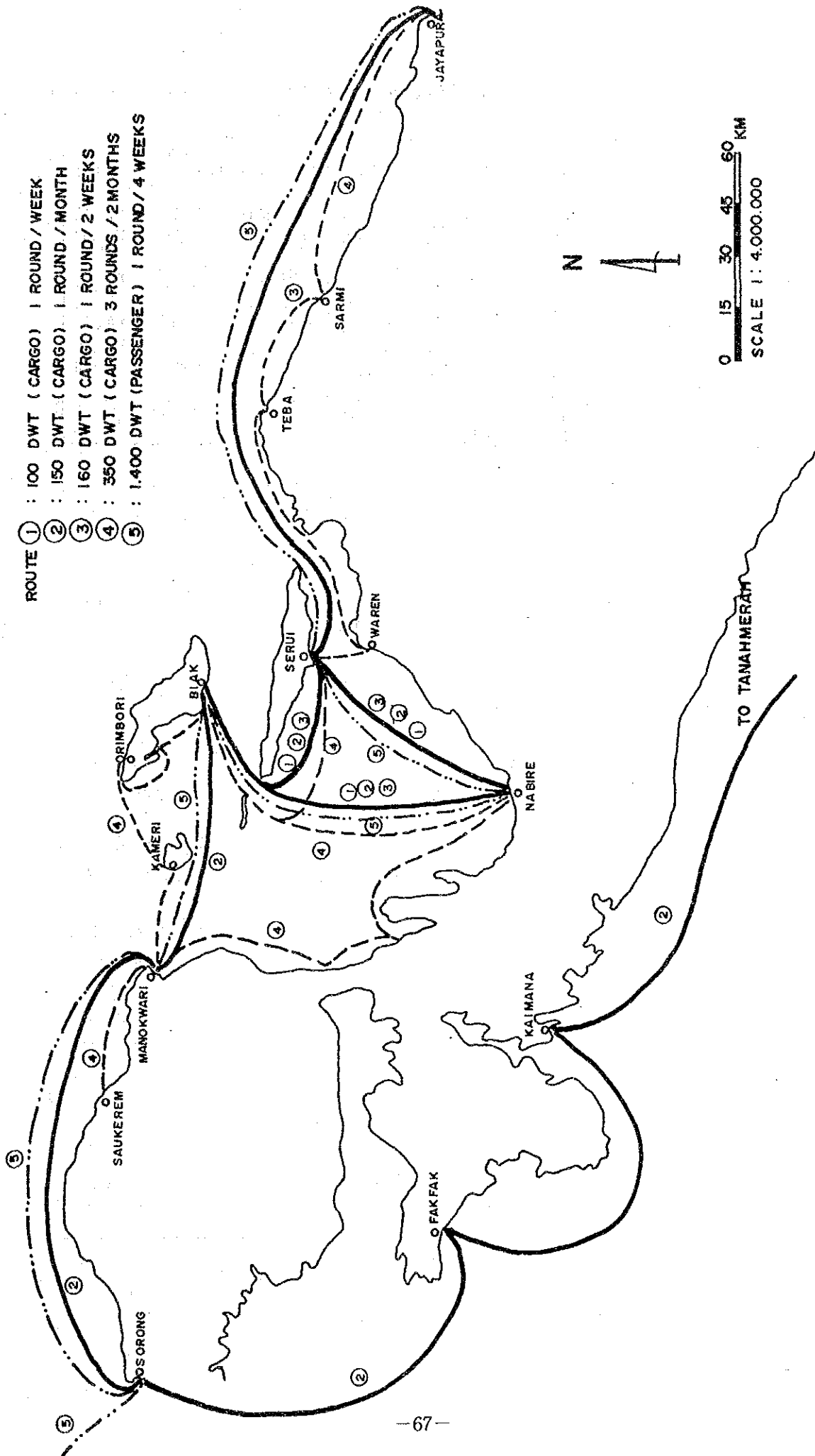


Fig. 2-2-1A Sea Transportation Network

Table 2-2-10A Sea Transportation Volume in the Ports of Biak/Serui/Nabire

City	Year	Ship Call	Cargo T/M3			Passenger		
			Unloading	Loading	Total	Unboarding	Boarding	Total
Biak	89	332	34,572	38,602	73,174	8,343	7,372	15,715
	90	650	63,613	67,489	131,102	8,243	7,359	15,602
Nabire	85	492	11,454	411	11,865	6,284	7,222	13,506
	86	396	14,346	690	15,036	4,139	5,415	9,554
	87	312	13,709	724	14,433	5,403	7,148	12,551
	88	275	13,034	721	13,755	7,280	8,846	16,126
	89	299	14,938	1,079	16,017	7,910	7,870	15,780
Serui	88		15,572	1,624	17,196			0
	89		22,698	13,937	36,635			0

Table 2-3-1A Gross Regional Domestic Product of East Nusa Tenggara
in thousand rupiah

No.	Sector	1987	1988	1989
1.	Agriculture	449,543,195	493,202,789	542,779,277
		316,017,719	325,218,478	193,066,728
2.	Mining	4,423,035	4,869,852	6,135,552
		3,128,624	3,324,823	3,719,989
3.	Industry	16,860,481	18,187,484	19,921,078
		12,572,047	12,692,077	13,095,570
4.	Electricity, Gas & Water Supply	5,739,223	7,108,774	7,993,227
		3,661,051	4,255,107	4,488,409
5.	Construction	27,074,088	34,738,256	39,355,188
		19,129,611	21,707,605	23,717,801
6.	Trade	100,109,737	108,176,615	121,881,894
		73,400,203	76,116,692	80,789,809
7.	Transport & Communication	65,581,084	76,089,347	87,887,932
		46,992,186	52,395,496	56,892,360
8.	Bank & Other Financial Office	11,027,594	12,538,146	14,947,915
		7,934,458	8,476,043	4,525,225
9.	House Rental	15,748,634	17,017,101	18,552,091
		10,941,730	11,098,379	11,282,911
10.	Government	113,876,251	144,150,232	157,545,517
		100,578,208	102,370,354	108,065,538
11.	Services	18,904,187	21,477,073	23,254,320
		13,449,640	14,360,313	14,877,970
Total		848,887,509	937,553,669	1,040,253,991
		607,805,477	632,015,367	666,902,598

1983 : 498,306,972 thousand rupiah

upper: at current prices

lower: at constant 1983 prices

Table 2-3-2A Gross Regional Domestic Product of kabupaten Flores Timur
in thousand rupiah

No.	Sector	1987	1988	1989
1.	Agriculture	29,941,930	33,161,539	35,836,214
		21,211,096	22,170,736	22,752,241
2.	Mining	189,867	203,237	276,966
		138,498	145,142	173,576
3.	Industry	1,824,889	1,837,294	2,020,776
		1,279,259	1,244,344	1,279,635
4.	Electricity, Gas & Water Supply	264,164	312,669	359,078
		194,546	211,668	228,761
5.	Construction	894,226	1,174,164	1,408,009
		636,732	763,684	886,656
6.	Trade	5,595,560	6,072,946	6,771,949
		3,984,462	4,201,713	4,378,882
7.	Transport & Communication	3,989,027	4,730,371	5,721,815
		2,858,566	3,308,039	3,713,328
8.	Bank & Other Financial Office	422,868	507,889	684,796
		266,022	297,239	381,920
9.	House Rental	1,510,554	1,633,336	1,785,926
		968,959	982,123	996,966
10.	Government	11,832,562	12,628,893	13,529,963
		8,662,700	8,696,387	8,930,079
11.	Services	1,937,498	2,110,231	2,167,300
		1,266,857	1,299,786	1,301,805
Total		58,403,145	64,372,569	70,552,782
		41,467,697	43,321,461	45,023,849

1983 : 37,463,678 thousand rupiah
upper : at current prices
lower : at constant 1983 prices

Table 2-3-3A Gross Regional Domestic Product of Kabupaten Alor
in thousand rupiah

No.	Sector	1987	1988	1989
1.	Agriculture	25,880,489	28,547,154	30,755,269
		18,147,138	18,747,119	19,417,037
2.	Mining	228,167	306,673	374,398
		166,436	211,806	227,645
3.	Industry	414,644	401,097	456,267
		300,609	275,961	291,908
4.	Electricity, Gas & Water Supply	144,308	185,232	196,406
		99,848	118,805	120,054
5.	Construction	1,066,633	1,300,807	1,485,329
		828,517	866,627	903,028
6.	Trade	4,677,611	5,146,199	5,763,019
		1,425,123	1,644,830	1,811,715
7.	Transport & Communication	2,151,833	2,593,475	3,035,954
		1,425,123	1,644,830	1,811,715
8.	Bank & Other Financial Office	484,455	617,644	724,031
		376,260	434,926	475,559
9.	House Rental	916,920	950,813	1,023,839
		645,072	645,648	650,045
10.	Government	5,954,131	6,269,551	6,723,630
		5,166,274	5,301,332	5,515,693
11.	Services	1,363,553	1,456,480	1,553,034
		986,241	1,007,312	1,024,938
Total		43,282,744	47,895,125	52,091,176
		31,590,807	32,824,945	34,222,055

1983 : 29,192,233 thousand rupiah

upper : at current prices

lower : at constant 1983 prices

Table 2-3-4A Length of Road in East Nusa Tenggara (km)

DESCRIPTION	1986	1987	1988	1989	1990
State	1,120.28	1,115.80	1,115.78	1,178.78	1,173.78
Province	1,790.59	1,656.40	1,684.345	1,688.945	1,889.90
Kabupaten	10,524.699	10,488.14	10,699.13	11,014.17	11,782.03
Total	13,435.529	13,260.34	13,499.255	13,881.895	14,845.71
Type of surface :					
1. Asphalted	2,581.93	2,803.15	2,651.611	3,203.192	4,064.34
2. Gravel	3,918.85	5,322.90	3,652.885	4,166.215	3,552.01
3. Earth	6,768.25	4,658.06	6,429.959	5,880.188	6,594.96
4. Unspecified	166.50	1,028.32	765.0	632.30	634.40
Total	13,435.53	13,812.43	13,499.255	13,881.895	14,845.71
Road condition :					
1. Good	2,411.68	2,378.65	2,882.17	2,539.939	3,259.80
2. Moderate	4,323.61	4,655.77	3,611.73	4,329.804	2,571.24
3. Damage	2,915.54	4,555.62	3,611.73	4,697.161	5,114.70
4. Heavy damage	3,784.71	2,222.39	2,338.53	2,315.00	3,899.71
Total	13,435.53	13,812.43	13,499.26	13,881.895	14,845.71

Sources : Public Work Office in each Kabupaten.

Table 2-3-5A Length of Road in Kabupaten Alor (km)

DESCRIPTION	1986	1987	1988	1989	1990
State	-	-	-	-	-
Province	86.00	78.00	86.00	86.00	86.00
Kabupaten	710.00	710.00	766.50	817.30	763.10
Total	796.00	988.00	852.50	903.30	849.10
Type of surface :					
1. Asphalted	88.0	92.18	289.10	165.10	116.15
2. Gravel	206.0	212.40	198.80	195.68	144.05
3. Earth	502.0	483.43	364.60	542.52	588.90
4. Unspecified	-	-	-	-	-
Total	796.0	788.0	852.50	903.30	849.10
Road condition :					
1. Good	286.0	286.0	576.0	162.80	70.40
2. Moderate	462.5	451.43	154.0	31.23	45.75
3. Damage	48.5	50.0	60.5	165.42	144.05
4. Heavy damage	-	-	62	543.85	588.90
Total	796.0	788.00	852.50	903.30	849.10

Sources : Public Work Office in each Kabupaten.

Table 2-3-6A Length of Road in Kabupaten Flores Timur (km)

DESCRIPTION	1986	1987	1988	1989	1990
State	66.90	66.0	66.90	66.90	66.90
Province	87.00	85.0	87.00	87.00	107.85
Kabupaten	978.50	978.57	824.60	824.60	982.35
Total	1,132.40	1,129.57	978.50	978.50	1,157.35
Type of surface :					
1. Asphalted	115.12	123.92	139.77	175.081	250.20
2. Gravel	244.64	295.19	236.15	293.95	286.95
3. Earth	618.74	556.49	602.58	509.469	620.20
4. Unspecified	153.90	153.97	-	-	-
Total	1,132.40	1,129.57	978.50	978.50	1,157.35
Road condition :					
1. Good	110.02	91.22	184.82	218.72	187.60
2. Moderate	728.08	288.89	263.69	282.69	68.30
3. Damage	140.40	749.46	529.99	477.08	901.45
4. Heavy damage	153.90	-	-	-	-
Total	1,132.40	1,129.57	978.50	978.50	1,157.35

Sources : Public Work Office in each Kabupaten.

Table 2-3-7A Number of Vehicles in East Nusa Tenggara

DESCRIPTION	1986	1987	1988	1989	1990
Motorcycle	24,473	26,359	24,473	27,179	27,816
Jeep	2,383	2,416	2,514	2,514	2,629
Passenger car	861	899	1,097	1,097	1,216
Micro bus	1,852	1,682	2,117	2,117	3,358
Truck	3,890	5,948	6,418	6,418	6,560

Sources : Regional Income Office of NTT Province

Table 2-3-8A Number of Vehicles in Kabupaten Alor

DESCRIPTION	1986	1987	1988	1990
Motorcycle	638	677	655	725
Jeep	36	36	35	42
Passenger car	3	3	4	17
Micro bus	19	19	26	91
Truck	182	172	172	109

Table 2-3-9A Number of Vehicles in Kabupaten Flores Timur

DESCRIPTION	1986	1987	1988	1990
Motorcycle	1,559	1,617	1,619	1,593
Jeep	119	119	46	60
Passenger car	2	2	13	4
Micro bus	49	49	88	87
Truck	362	362	362	442

- ROUTE ① : FERRY 2 ROUNDS / WEEK
 ② : FERRY 2 ROUNDS / WEEK
 ③ : FERRY 4 ROUNDS / WEEK
 ④ : FERRY 1 ROUND / WEEK
 ⑤ : FERRY
 ⑥ : CONV. "ELANG" (2.216 DWT)
 1 ROUND / 21 DAYS
 ⑦ : CONV. "BARUNA FAJAR" (1.254 DWT)
 1 ROUND / 23 DAYS

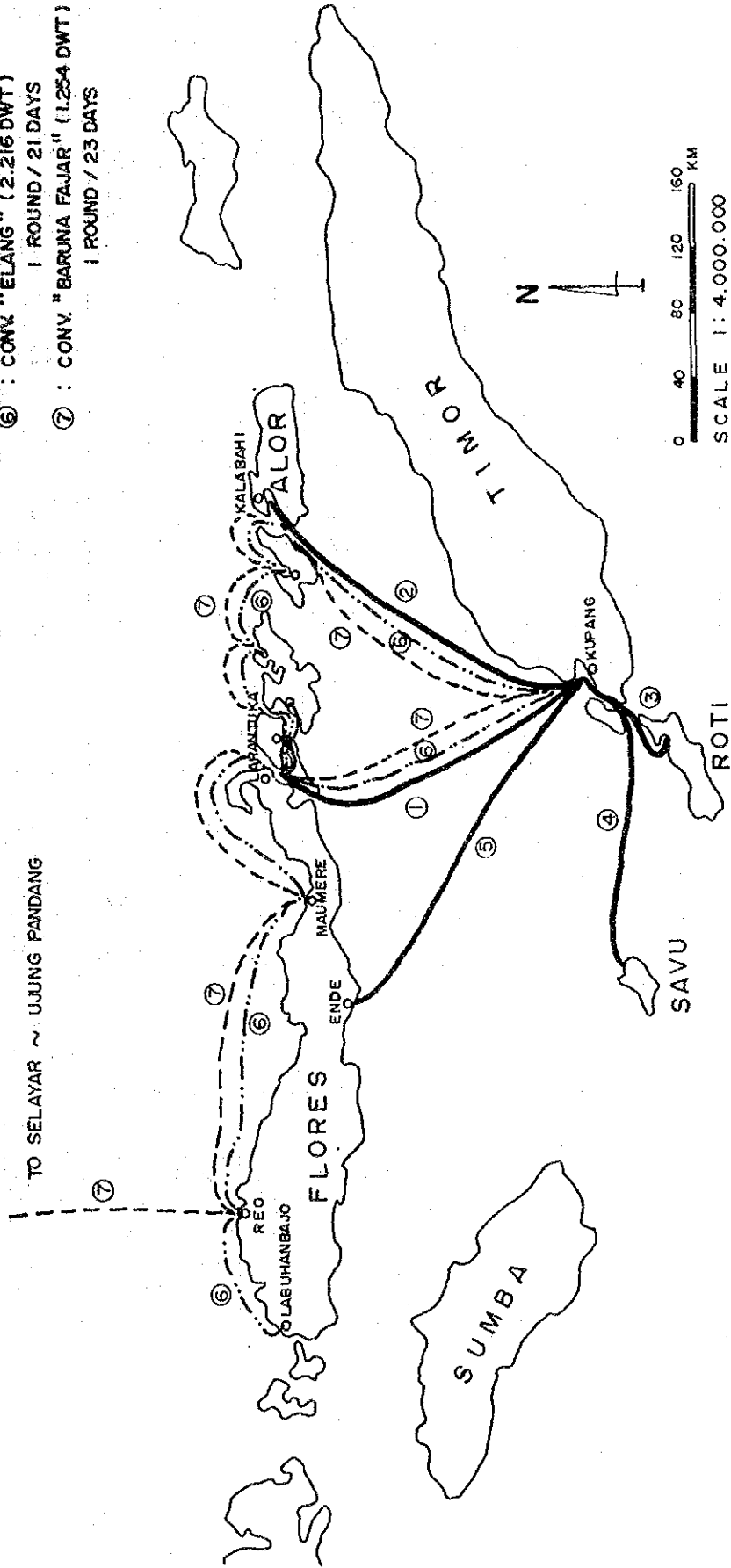


Fig. 2-3-1A Sea Transportation Network

Table 2-3-10A Ferry Transportation Volume on the Route of Larantuka/Waiwerang/Lewoleba

Route	Year	Trip	Passenger	Vehicle			Cargo T/M3
				V-2	V-4	Total	
Larantuka Kupang	91	106	21,118			310	679
	90	116	23,998			304	624
	89	121	21,630	77	126	203	527
	88	115	16,528			141	571
Larantuka Waiwerang	90	83	1,413			44	2
	89	212	3,209	53	6	59	5
	88		1,544			23	100
Waiwerang Lewoleba	90	83	504			5	3
	89	211	515	8	0	8	102
	88		1,075				
Larantuka Lewoleba	90	83	2,302			103	87
	89	211	8,631	157	16	173	528
	88		3,129			18	194
Waiwerang Larantuka	90	82	3,412			63	53
	89	211	1,793	17	0	17	0
	88		400				
Lewoleba Waiwerang	90	82	897			5	2
	89	211	1,383	11	0	11	7
	88		451				
Lewoleba Larantuka	90	82	4,227			92	10
	89	211	6,951	88	6	94	229
	88		3,400			32	29

*Source: Perum ASDP Branch Office

Table 2-3-11A Passenger Transportation Volume by PELNI in 1991

	Ship Call	To/From Kalabahi	To/From Kupang	To/From Ujung P.
From Larantuka	40	112	184	60
To Larantuka	40	99	746	17

*Source: PELNI Branch Office

Table 2-3-12A The Results of Survey by Questionnaire for Ferry Passengers on the Routes of Kalabahi - Kupang and Larantuka - Kupang

1. Occupation

	Kalabahi~Kup.		Larantuka~Kup.		Total	
		%		%		%
1. Merchant	5	27.8	26	20.8	31	21.7
2. Official	4	22.2	12	9.6	16	11.2
3. Businessman	4	22.2	26	20.8	30	21.0
4. Student	5	27.8	41	32.8	46	32.2
5. Housewife	0	0.0	6	4.8	6	4.2
6. Oters	0	0.0	14	11.2	14	9.8
Total	18	100.0	125	100.0	143	100.0

2. Purpose of Trip

	Kalabahi~Kup.		Larantuka~Kup.		Total	
		%		%		%
1. Business	7	38.9	31	24.8	38	26.6
2. Visiting Relatives	5	27.8	61	48.8	66	46.2
3. Tour	0	0.0	1	0.8	1	0.7
4. Others	6	33.3	32	25.6	38	26.6
Total	18	100.0	125	100.0	143	100.0

3. Request to Ferry Service

	Kalabahi~Kup.		Larantuka~Kup.		Total	
		%		%		%
1. Capacity of Ferry Boat	11	57.9	65	23.6	76	25.8
2. Frequency of Service	2	10.5	29	10.5	31	10.5
3. Speed of Ferry Boat	1	5.3	42	15.2	43	14.6
4. Safety/Stability	0	0.0	28	10.1	28	9.5
5. Tariff	1	5.3	40	14.5	41	13.9
6. Accommodation of Ferry Boat	2	10.5	17	6.2	19	6.4
7. Ferry Terminal Facility	0	0.0	22	8.0	22	7.5
8. Location of Ferry Terminal	0	0.0	17	6.2	17	5.8
9. Others	2	10.5	16	5.8	18	6.1
Total	19	100.0	276	100.0	295	100.0

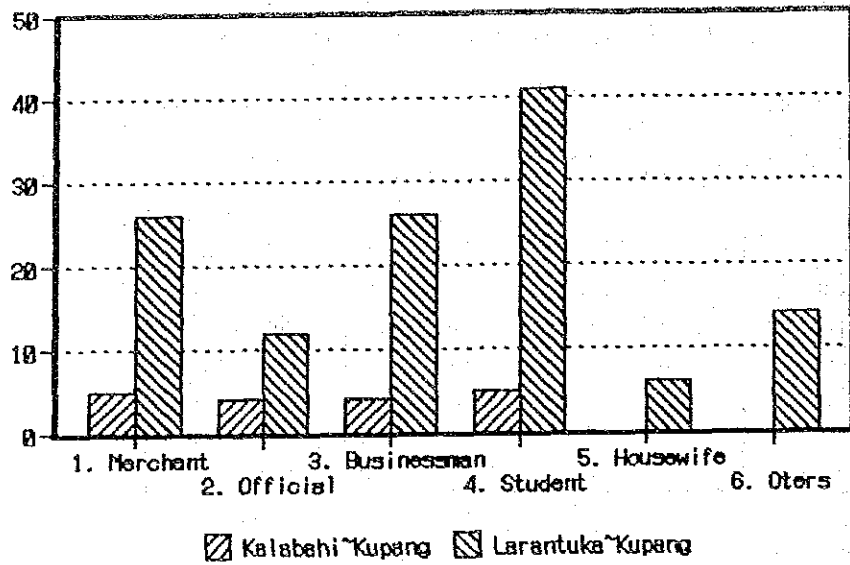


Fig. 2-3-2A Results (Survey by Quest.)
Occupations of the Ferry Passengers

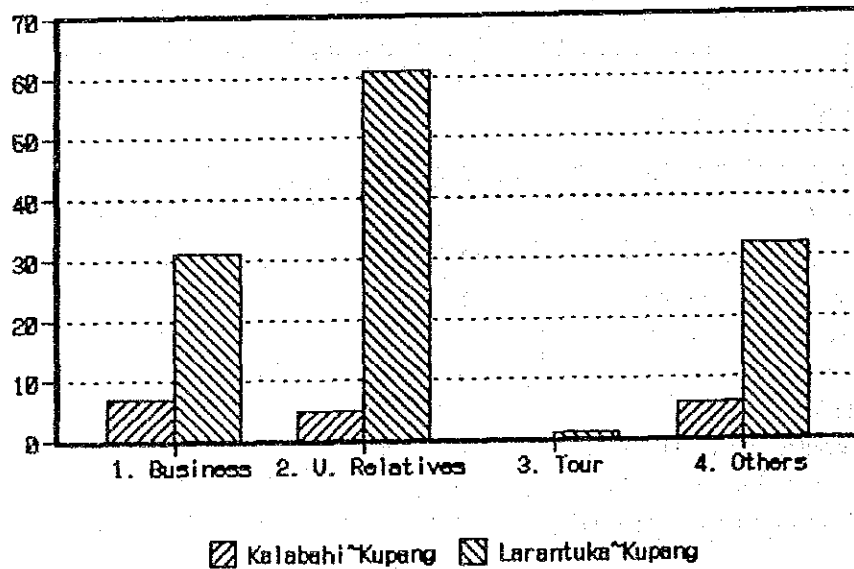


Fig. 2-3-3A Results (Survey by Quest.)
Purpose of Trip

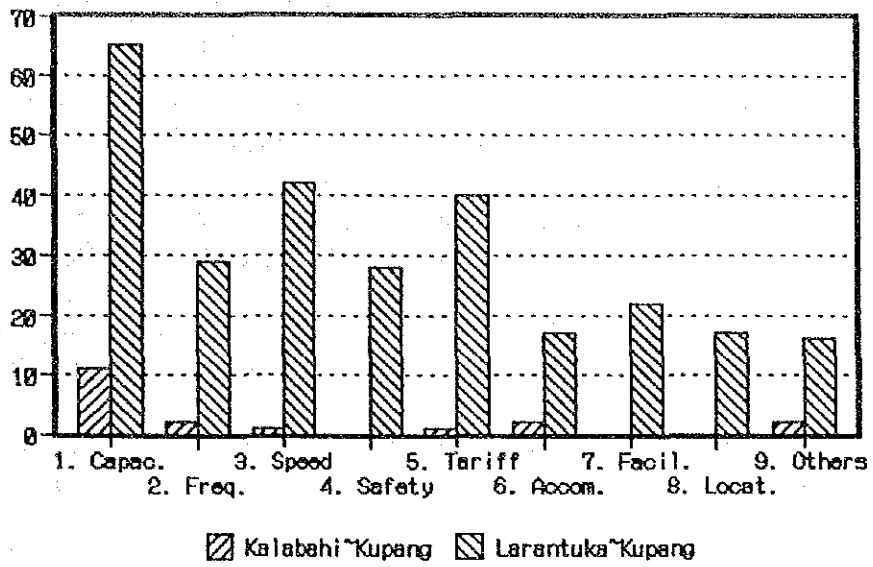


Fig. 2-3-4A Results (Survey by Quest.)
 equest for Ferry Service

Table 2-4-1A Gross Regional Domestic Product of South-east Sulawesi
in million rupiah

No.	Sector	1986	1987	1988
1.	Agriculture	183,121.30	205,821.53	247,371.04
		163,046.16	171,139.90	179,023.77
2.	Mining	20,940.67	18,230.88	76,344.08
		19,171.67	10,735.15	23,330.51
3.	Industry	6,959.45	8,372.12	11,016.01
		5,629.13	6,748.22	7,791.81
4.	Electricity, Gas & Water Supply	1,950.34	2,149.	2,417.77
		1,515.60	1,672.74	1,924.04
5.	Construction	1,607.94	15,755.46	17,841.04
		9,759.49	12,121.29	12,622.78
6.	Trade	55,003.39	69,774.89	82,704.34
		47,323.88	52,357.81	54,477.36
7.	Transport & Communication	47,805.69	53,933.23	59,116.49
		44,919.37	48,155.85	50,219.69
8.	Bank & Other Financial Office	3,580.39	4,241.98	4,444.41
		3,146.96	3,418.20	3,641.11
9.	House Rental	20,454.17	21,922.80	24,001.95
		15,300.32	16,196.24	16,826.03
10.	Government	63,869.41	77,359.05	99,182.62
		53,698.85	60,114.61	67,210.14
11.	Services	1,589.53	4,370.19	5,078.79
		2,843.61	3,353.11	3,711.01
	Total	418,882.28	481,932.58	629,518.52
		366,355.04	386,013.12	420,778.25

1983 : 294,271.67 million rupiah
upper : at current prices
lower : at constant 1983 prices

Table 2-4-2A Gross Regional Domestic Product of Kabupaten Buton
in million rupiah

No.	Sector	1986	1987	1988	1989
1.	Agriculture	51,722.26	55,432.43	38,976.02	59,514.72
		46,692.54	47,909.96	44,504.53	45,166.70
2.	Mining	2,279.11	1,646.20	1,900.04	1,671.55
		3,584.12	2,060.50	1,821.37	1,325.89
3.	Industry	1,049.55	1,233.96	1,579.97	2,248.95
		789.44	951.66	1,115.70	1,459.12
4.	Electricity, Gas & Water Supply	309.04	376.72	417.38	512.48
		243.06	294.51	338.01	367.79
5.	Construction	3,834.52	5,036.52	5,702.98	6,645.10
		3,223.92	3,874.63	4,034.93	4,425.65
6.	Trade	15,666.07	18,650.46	20,759.69	21,944.36
		13,810.12	14,506.25	15,123.06	15,229.14
7.	Transport & Communication	6,022.86	6,727.09	7,315.44	8,994.06
		5,557.52	5,864.79	6,038.77	7,429.26
8.	Bank & Other Financial Office	145.37	129.46	83.30	149.92
		138.60	110.36	115.61	104.95
9.	House Rental	6,526.20	7,015.13	7,515.03	7,697.42
		4,885.02	5,182.53	5,268.69	5,273.70
10.	Government	16,406.10	21,783.37	29,344.25	34,579.74
		13,793.59	16,904.55	19,852.43	22,287.93
11.	Services	718.26	983.11	1,123.21	1,166.68
		571.35	764.04	830.45	827.01
Total		104,689.44	119,014.56	134,717.35	145,125.25
		93,289.41	98,439.86	99,033.55	103,897.14

1983 : 84,250.03 million rupiah
upper : at current prices
lower : at constant 1983 prices

Table 2-4-3A Gross Regional Domestic Product of Kabupaten Kendari
in million rupiah

No.	Sector	1986	1987	1988	1989
1.	Agriculture	51,458.32	63,284.95	80,505.80	90,622.29
		46,112.07	52,401.65	59,117.25	61,472.15
2.	Mining/excavating	1,094.47	1,563.03	1,769.83	2,214.24
		1,056.70	1,490.31	1,567.61	1,756.35
3.	Industry	459.30	5,295.33	6,967.21	8,331.44
		3,657.21	4,348.66	4,899.76	5,372.14
4.	Electricity & Water Supply	1,186.02	1,289.75	1,464.74	1,852.59
		956.04	1,017.27	1,186.79	1,259.22
5.	Construction	4,821.83	7,037.99	7,969.11	9,285.61
		4,054.00	5,414.26	5,638.26	6,184.22
6.	Trade	18,750.35	25,127.22	30,465.37	34,855.75
		15,998.68	18,533.72	20,477.96	21,014.60
7.	Transport & Communication	31,894.26	36,135.75	39,805.54	44,283.56
		29,985.36	32,326.29	33,858.16	37,829.78
8.	Finance & House Rental	10,278.92	11,229.66	11,982.80	13,366.79
		8,051.55	8,520.99	8,754.02	9,492.11
9.	Services	27,114.66	30,593.83	37,358.75	44,221.61
		22,720.75	23,761.65	25,428.25	28,638.64
Total		151,058.13	181,557.51	218,289.15	249,033.85
		132,592.36	147,814.80	160,928.06	173,019.21

1983 : 91,101.10 million rupiah
upper: at current prices
lower: at constant 1983 prices

Table 2-4-4A Gross Regional Domestic Product of Kabupaten Kolaka

Year	Income per capita (in million rupiah)
1986	430,393.75
	369,045.01
1987	475,066.34
	349,448.32
1988	816,705.00
	422,474.80
1989	946,666.59
	492,500.27

Table 2-4-5A Length of Road in South East Sulawesi (km)

Year	S t a t e		Province		Kabupaten		T o t a l	
	Asphalted	Not	Asphalted	Not	Asphalted	Not	Asphalted	Not
1985	197	-	364	727	549	3,227	1,110	3,934
1986	197	-	364	727	666	3,335	1,227	4,062
1987	197	-	400	692	709	3,293	1,306	3,985
1988	197	-	401	691	1,325	2,986	1,923	3,677
1989	309.34	27.21	380.71	647.35	1,120.40	2,982.24	1,810.45	3,656.8

Sources : Department of Public Works Regional Office in South East Sulawesi Province, Kabupaten Public Works Office in all South East Sulawesi.

Table 2-4-6A Length of Road in South East Sulawesi Province in 1989 (km)

DESCRIPTION	State	Province	Kabupaten	Total
1. Type of surface :				
1. Asphalted	309.34	380.71	1,120.40	1,810.45
2. Gravel	27.21	419.41	1,038.60	1,485.32
3. Earth	-	225.84	981.05	1,206.89
4. Unspecified	-	2.00	962.59	964.59
Total	336.55	1,028.06	4,102.64	5,467.25
2. Road condition :				
1. Good	64.94	380.71	1,083.90	1,529.55
2. Moderate	131.44	355.90	1,004.90	1,492.24
3. Damage	140.17	63.61	801.20	1,004.98
4. Heavy damage	-	227.84	1,212.64	1,440.48
5. Unspecified	-	-	-	-
Total	336.55	1,028.06	4,102.64	5,467.25

Sources : 1. Public Work Offices in all South East Sulawesi.
 2. Department of Public Work Regional Office in South East Sulawesi Province.

Table 2-3-7A Length of Road in Kabupaten Buton (km)

DESCRIPTION	1985	1986	1987	1988	1989
1. Type of surface :					
1. Asphalted	162	239	260	397	283
2. Gravel	382	470	449	282	302
3. Earth	514	514	525	112	212
4. Unspecified	-	-	-	433	17
Total	1,058	1,223	1,224	1,224	1,230
2. Road condition :					
1. Good	440	324	345	397	450
2. Moderate	252	187	187	182	256
3. Damage	156	672	66	112	92
4. Heavy damage	210	1,640	626	-	432
5. Unspecified	-	-	-	433	-
Total	1,058	1,223	1,224	1,224	1,230

Sources : Department of Public Works Regional Office in South East Sulawesi Province.

Table 2-4-8A Length of Road in Kabupaten Kendari (km)

DESCRIPTION	1985	1986	1987	1988	1989
1. Type of surface :					
1. Asphalted	227	227	276	446	218.40
2. Gravel	369	369	523	122	376.60
3. Earth	617	617	380	175	199.40
4. Unspecified	223	223	257	693	297.00
Total I	1,436	1,436	1,436	1,436	1,091.40
2. Road condition :					
1. Good	672	672	80	446	218.40
2. Moderate	342	342	383	122	376.60
3. Damage	352	352	167	175	199.40
4. Heavy damage	70	70	210	-	297.00
5. Unspecified	-	-	596	693	-
Total II	1,436	1,436	1,436	1,436	1,091.40

Sources : 1. Public Works Office in all South East Sulawesi Provinces
2. Department of Public Works Regional Office in South East Sulawesi Province.

Table 2-4-9A Length of Road in Kabupaten Kolaka (km)

DESCRIPTION	1985	1986	1987	1988	1989
1. Type of surface :					
1. Asphalted	129	129	95	334	384
2. Gravel	459	459	284	164	135
3. Earth	124	124	318	257	236
4. Unspecified	-	-	15	216	216
Total I	712	712	712	971	971
2. Road condition :					
1. Good	-	-	95	334	231
2. Moderate	117	117	284	164	98
3. Damage	595	595	318	257	189
4. Heavy damage	-	-	-	-	453
5. Unspecified	-	-	-	261	-
Total II	712	712	712	971	971

Sources : 1. Department of Public Works Regional Office in South East Sulawesi Province.

Table 2-4-10A Number of Vehicles in Kabupaten Kendari

DESCRIPTION	1985	1986	1987	1988	1989
1. Passenger car	2,624	3,045	3,273	3,203	4,222
2. Mini bus car	489	534	612	715	839
3. Commodities car	1,608	1,615	1,700	1,734	3,437
4. Motorcycle	15,218	15,510	16,290	17,153	17,282

Sources : 1. Land Transportation General Directorate Regional Office in South East Sulawesi Province - Regional Police of South East Sulawesi.

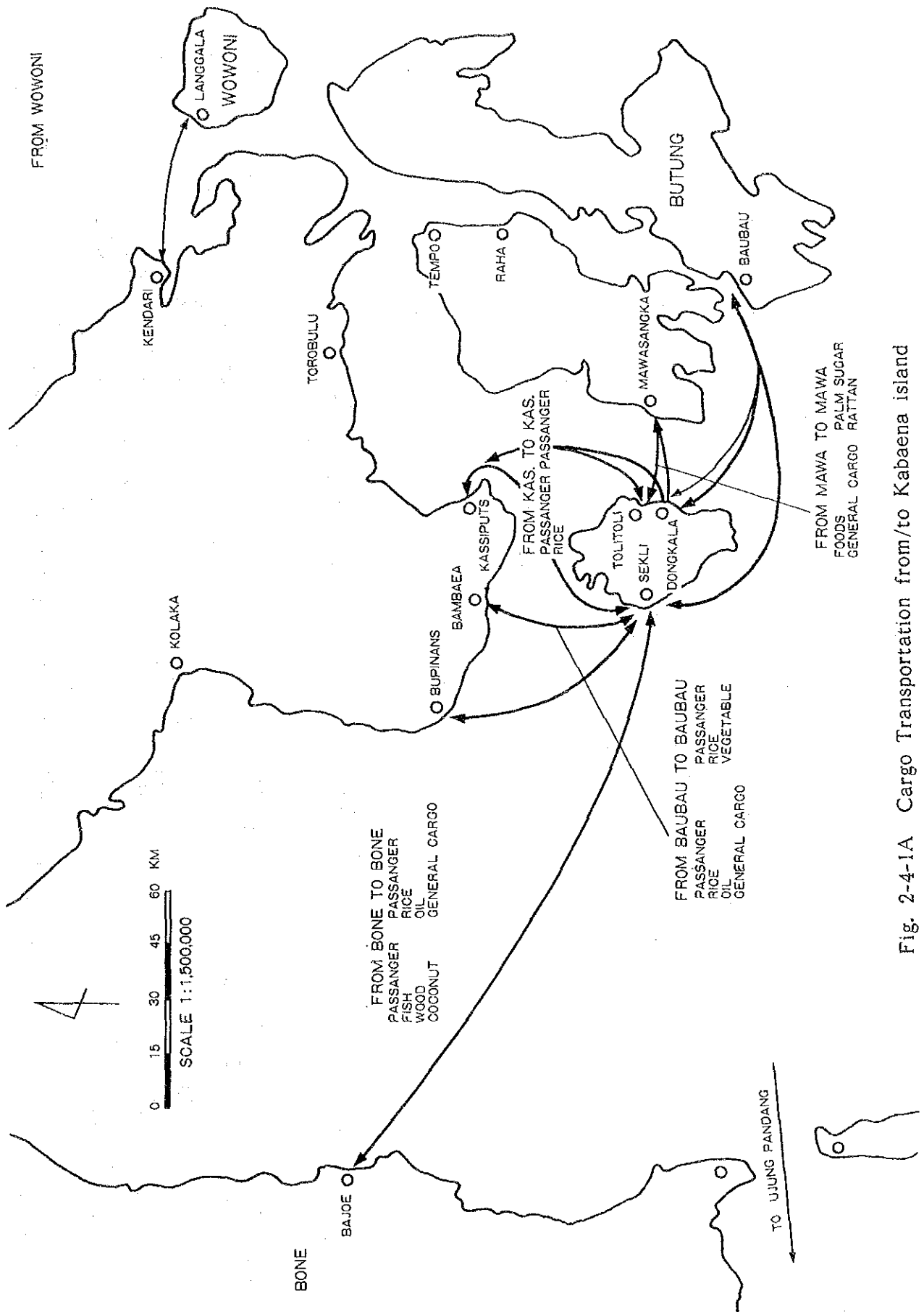


Fig. 2-4-1A Cargo Transportation from/to Kabaena island

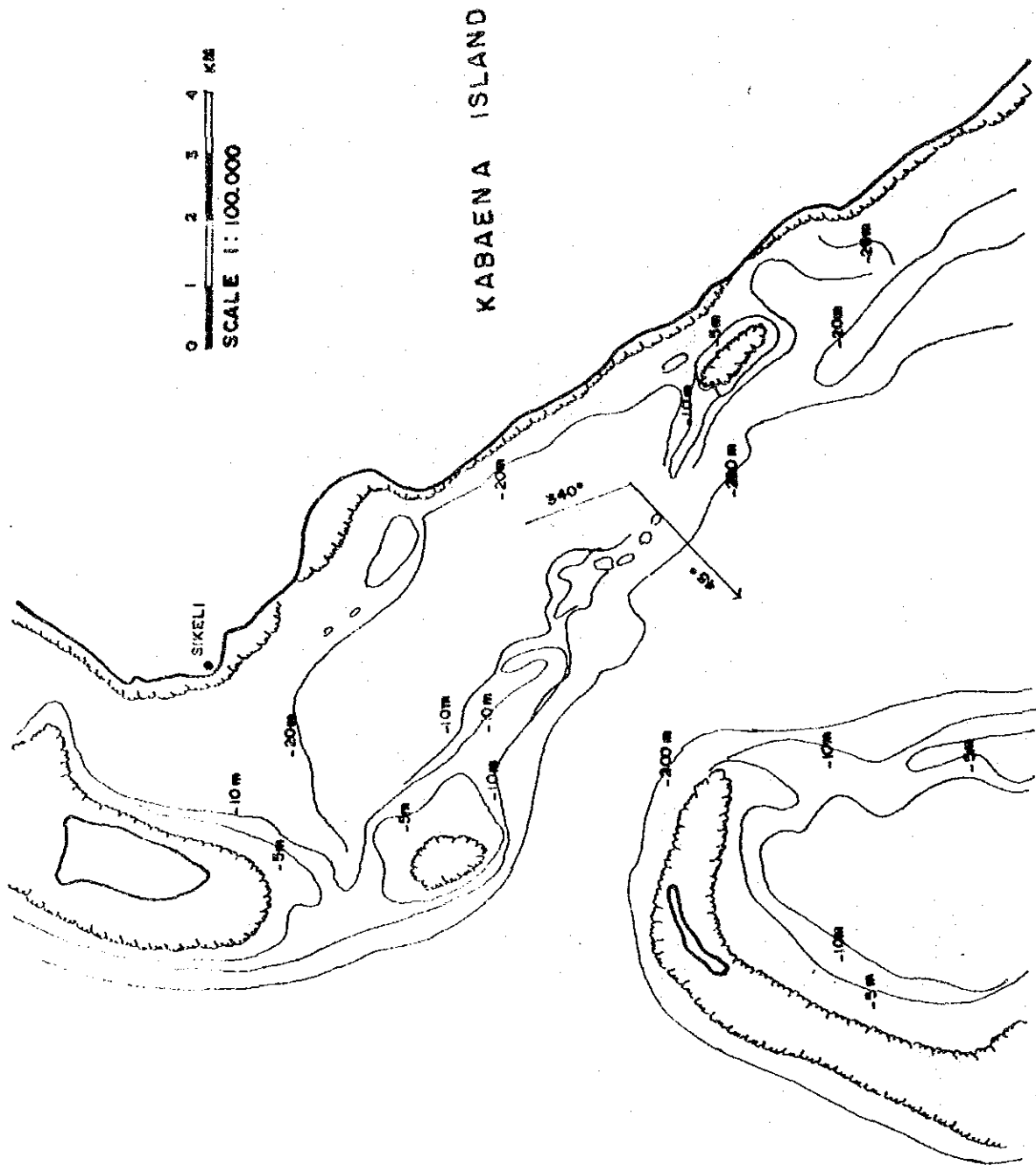


Fig. 2-4-2A Sea topography around Sikeli

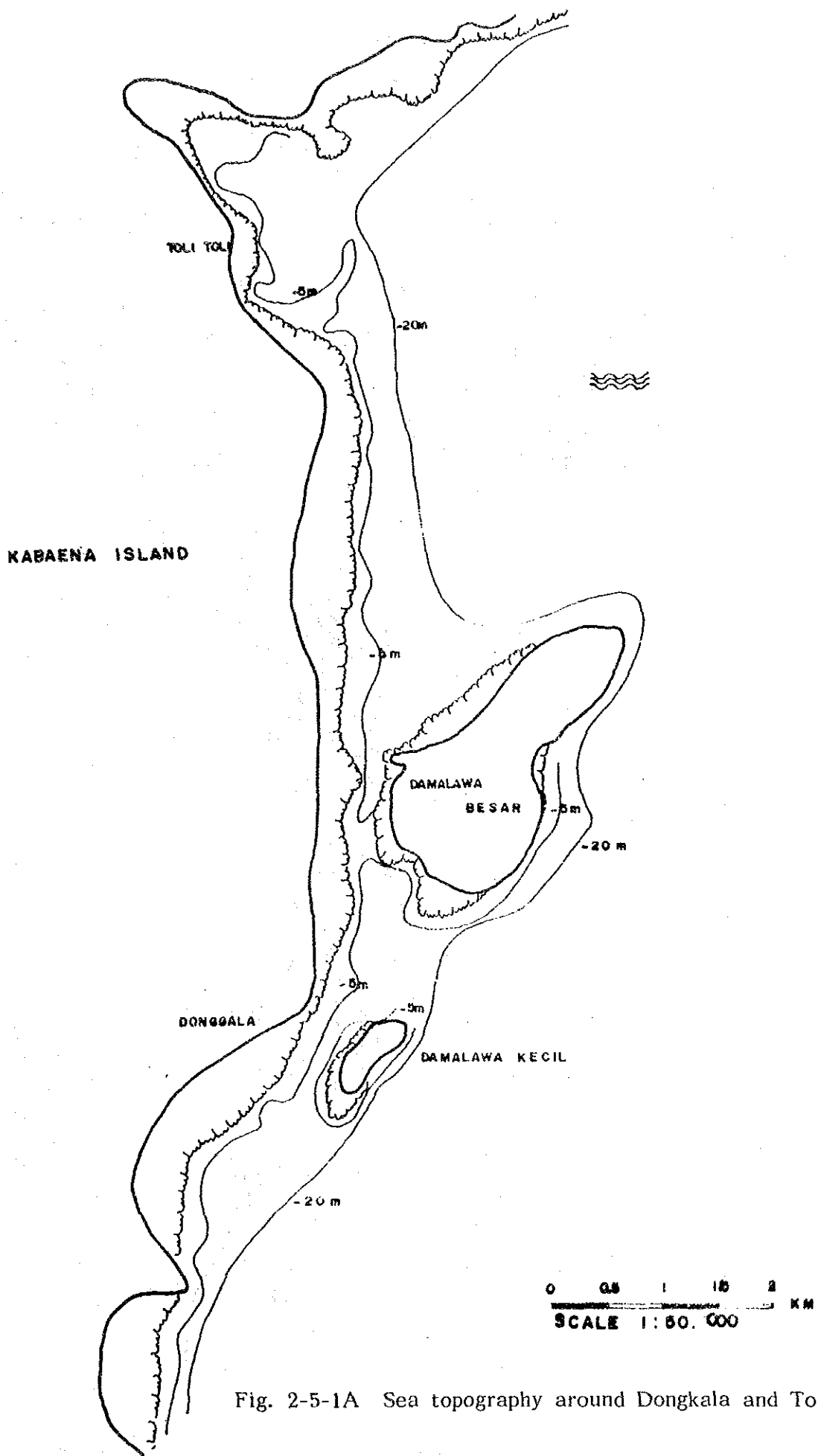


Fig. 2-5-1A Sea topography around Dongkala and Toli toli

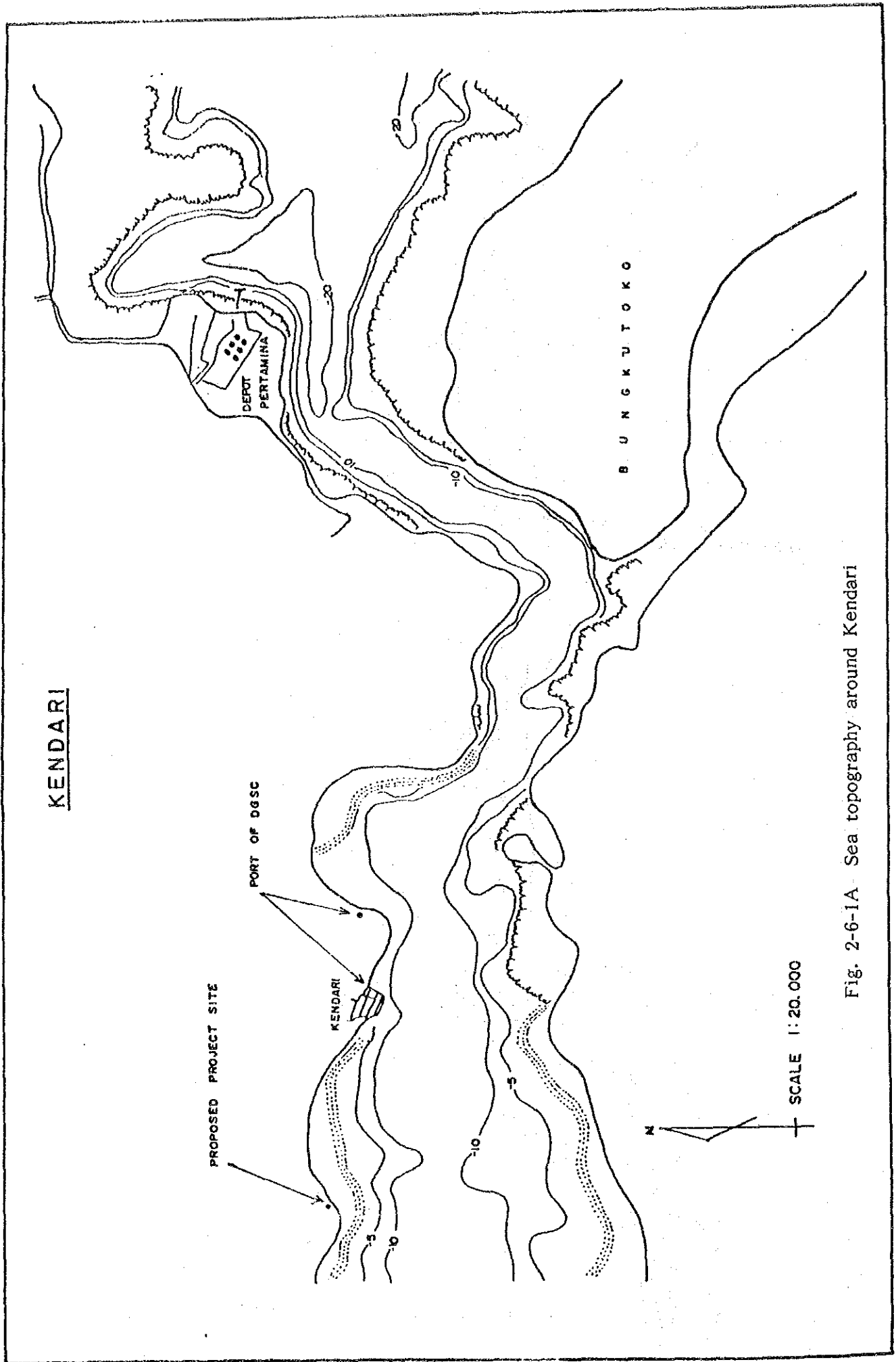


Fig. 2-6-1A Sea topography around Kendari

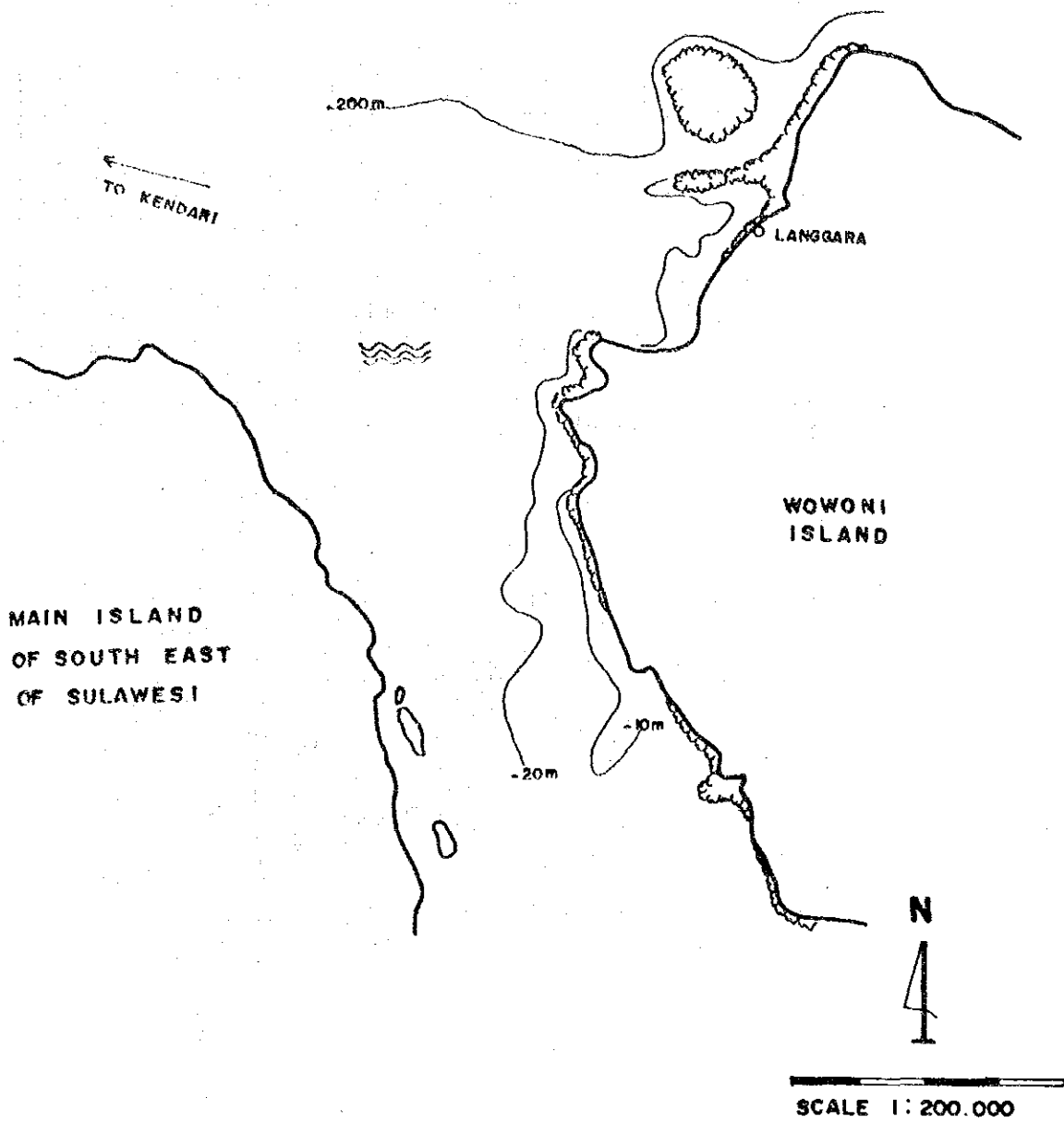


Fig. 2-6-2A Sea topography around Langgara

Table 2-6-1A Statistic Data in Kendari Port

	1987	1988	1989	1990	1991
Call No. of Ship	1970	1665	1381	1287	2583
Passenger					
Landing	41,632	41,371	45,450	62,511	74,892
Boarding	34,202	54,609	66,425	93,606	94,304
Total	75,834	95,980	111,875	156,117	169,196
Cargo (ton)					
Unloading	43,596	137,796	162,224	139,937	154,616
Loading	48,997	73,465	41,463	73,543	88,089
Total	92,593	211,261	203,687	213,480	242,705

Source: The Sea Transportation in Southeast Sulawesi Province in 1987-1991
 Kanwil of South Sulawesi Province, MOC

Table 2-6-2A Ferry Data of Torobulu/Tampo

Year	Passenger	Vehicle (unit)	Cargo (ton)
1987	13,348	1,326	433
1988	14,240	1,397	775
1989	15,962	1,492	1,130
1990	19,341	1,666	1,677
1991	21,494	1,700	1,796

Source: Torobulu office of Perum ASDAP

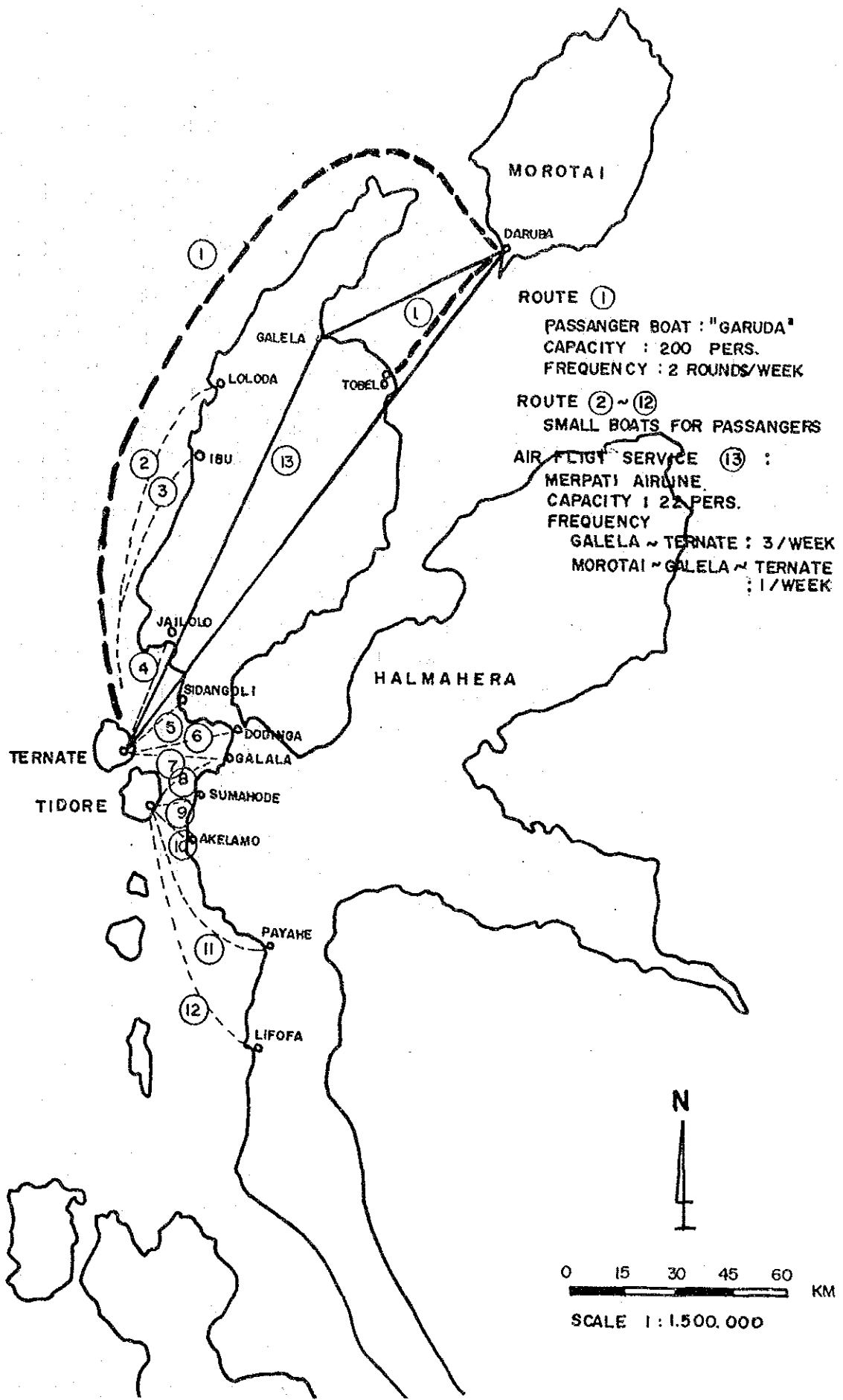


Fig. 2-7-1A Seal Transportation Network
 (Morotai Isl. - Halmahera Isl. - Ternate - Tidore)

Table 2-7-1A Passenger Transportation Volume of Tobelo/Daruba/Ternate by the Boat of KM GARUDA (PT KARBALA RAYA LINE) in 1991

Month	From Daruba To			From Tobelo To			From Ternate To		
	Tobelo	Ternate	TOTAL	Ternate	Daruba	TOTAL	Tobelo	Daruba	TOTAL
1	718	825	1,543	545	756	1,301	664	128	792
2	448	600	1,048	417	757	1,174	581	94	675
3	610	597	1,207	414	849	1,263	570	172	742
4	493	615	1,108	623	633	1,256	579	262	841
5	608	576	1,184	613	745	1,358	812	169	981
6	565	702	1,267	353	414	767	618	486	1,104
7	435	372	807	842	788	1,630	614	504	1,118
8	0	0	0	0	0	0	0	0	0
9	439	333	772	547	786	1,333	417	463	880
10	350	194	544	602	799	1,401	513	383	896
11	524	207	731	602	759	1,361	715	409	1,124
12	624	1,341	1,965	484	721	1,205	760	549	1,309
Total	5,814	6,362	12,176	6,042	8,007	14,049	6,843	3,619	10,462

*Source: PT KARBALA RAYA LINE

Table 2-7-2A Transportation Volume between Ternate Isl. and Halmahera Isl.

Destination	Distance MIL.	Ship	Passenger
1 Jailolo	17	216	234,600
2 Sidangoli	9	248	716,147
3 Dodinga	14	300	587,500
4 Ibu	44	311	517,232
5 Galala	10	280	297,118
6 Loloda	55	1,400	58,260

*Source: DGSC Regional Office

Table 2-7-3A Handling Volume of the Ports

Port	Year	Ship Call	Cargo			Passenger		
			Unloading	Loading	Total	Boading	Landing	Total
Tobelo	86	2,279	26,929	29,286	56,215	20,262	19,269	39,531
	87	2,324	26,115	29,837	55,952	31,928	29,131	61,059
	88	2,311	26,532	29,572	56,104	26,105	24,210	50,315
	89				0			0
	90	657	33,555	40,326	73,881	22,211	21,569	43,780
Daruba	86	251	1,994	4,278	6,272	2,449	3,786	6,235
	87	741	5,064	7,700	12,764	12,750	12,796	25,546
	88	675	5,429	3,548	8,977	10,426	7,799	18,225
	89	852	21,000	16,135	37,135	12,661	12,034	24,695
	90	562	3,288	5,478	8,766	8,522	11,787	20,309
Ternate	86	1,403	147,681	91,730	239,411	33,968	35,103	69,071
	87	2,800	156,941	194,508	351,449	74,767	72,074	146,841
	88	3,034	286,965	302,691	589,656	92,500	89,110	181,610
	89	3,062	377,034	529,414	906,448	110,189	113,014	223,203
	90	2,635	326,590	710,416	1,037,006	106,457	114,653	221,110

*Source: DGSC Regional Office

Table 2-8-1A Gross Regional Domestic Product of South Sulawesi
in million rupiah

No.	Sector	1987	1988	1989
1.	Agriculture	1,226,137.91	1,440,466.42	1,629,818.91
		919,007.11	1,026,996.53	658,468.20
2.	Mining	24,846.57	27,387.61	30,848.53
		17,906.67	18,699.70	19,863.22
3.	Industry	168,473.63	207,584.71	245,856.53
		133,607.83	149,578.04	164,414.64
4.	Electricity, Gas & Water Supply	34,453.18	39,477.34	46,081.06
		24,897.66	27,638.34	31,062.39
5.	Construction	105,188.69	120,738.81	140,258.43
		84,231.81	91,399.55	99,488.18
6.	Trade	567,588.18	632,044.47	717,335.85
		394,089.75	419,360.75	427,295.54
7.	Transport & Communication	248,407.78	279,974.96	314,100.59
		209,093.55	233,038.56	236,224.58
8.	Bank & Other Financial Office	50,337.28	58,671.64	70,330.53
		38,952.06	42,891.19	47,939.55
9.	House Rental	132,919.65	141,139.66	152,805.45
		103,824.07	107,281.59	111,390.47
10.	Government	291,014.07	326,477.45	360,132.35
		222,862.04	236,235.49	247,292.70
11.	Services	21,905.58	25,320.41	28,099.89
		28,310.35	20,048.64	21,190.75
Total		2,870,427.47	3,299,283.48	3,735,668.12
		2,166,825.91	2,363,168.38	2,502,520.39

1983 : 1,751,729.24 million rupiah
upper : at current prices
lower : at constant 1983 prices

Table 2-8-2A Gross Regional Domestic Product of Kabupaten Bone

Year	Income per capita (in million rupiah)
1986	237,182
	193,898
1987	250,863
	197,771
1988	279,037
	210,183

Table 2-8-3A Length of Road in South Sulawesi Province (km)

DESCRIPTION	S T A T E				
	1986	1987	1988	1989	1990
1. Type of surface :	1,018	583	583	921	921
1. Asphalted	928	528	552	901	911
2. Gravels	36	55	31	20	10
3. Earth	-	-	-	-	-
4. Unspecified	-	-	-	-	-
2. Condition :	1,018	583	583	921	921
1. Good	768	418	445	869	863
2. Moderate	214	155	130	32	58
3. Damage	36	10	8	20	-
4. Heavy damage	-	-	-	-	-
5. Unspecified	-	-	-	-	-
P R O V I N C E					
1. Type of surface :	1,399	1,849	1,844	1,690	1,690
1. Asphalted	1,369	1,834	1,844	1,679	1,616
2. Gravels	30	15	-	4	74
3. Earth	-	-	-	7	-
4. Unspecified	-	-	-	-	-
2. Condition :	1,399	1,849	1,844	1,690	1,690
1. Good	1,041	1,148	1,426	356	520
2. Moderate	273	653	365	1,223	1,190
3. Damage	85	-	-	111	-
4. Heavy damage	-	-	54	-	-
5. Unspecified	-	-	-	-	-
K A B U P A T E N					
1. Type of surface :	15,538	16,042	19,247	19,423	19,913
1. Asphalted	3,009	3,349	3,735	4,089	4,455
2. Gravels	4,426	4,570	5,926	5,785	5,778
3. Earth	6,355	6,433	8,674	8,442	8,634
4. Unspecified	1,748	1,690	912	1,107	1,046
2. Condition :					
1. Good	15,538	16,042	5,748	5,527	5,854
2. Moderate	4,153	4,316	1,750	4,376	4,584
3. Damage	3,620	3,690	4,357	5,105	5,159
4. Heavy damage	3,754	4,070	4,492	4,415	4,316
5. Unspecified	4,011	3,966	-	-	-

Sources : Regency of Public Work Service of South Sulawesi

Table 2-8-4A Length of Road in Kabupaten Bone (km)

DESCRIPTION	1987	1988	1989	1990
1. Type of surface :				
1. Asphalted	385	348	348	371
2. Gravels	497	649	653	626
3. Earth	1,317	1,202	1,198	1,202
4. Unspecified	-	-	-	-
2. Condition :				
1. Good	334	333	333	354
2. Moderate	325	647	675	663
3. Damage	1,004	344	316	307
4. Heavy damage	536	875	875	875
Total	2,199	2,199	2,199	2,199

Sources : Regency of Public Work Service of South Sulawesi

Table 2-8-5A Number of Vehicles in South Sulawesi Province

Type of Vehicles	1986	1987	1988	1989	1990
1. Passenger cars	28,466	31,277	18,382	19,663	26,528
2. Trucks	46,936	52,025	47,738	40,452	37,476
3. Buses	8,452	9,772	3,780	9,854	6,225
4. Motorcycles	219,278	240,390	231,478	245,334	233,823
Total	303,112	333,444	291,378	315,303	304,052

Sources : Traffic Office of Police Region of South Sulawesi

Table 2-8-6A Monthly Variation of Passengers, Cargoes etc.
transported by Ferrys from Kolaka to Bajoe in 1991

	Number of Trip	Passenger		Cargo (ton)		Vehicle (unit)	
		Landing	Boarding	Unloading	Loading	Unloading	Loading
January	46	13,905	12,264	4,056	4,256	554	522
February	42	12,435	11,126	4,255	3,593	635	491
March	47	12,579	11,481	5,021	4,002	726	566
April	47	12,606	12,705	4,404	3,703	684	602
May	62	13,220	9,424	4,381	3,634	561	476
June	60	15,619	13,790	4,795	4,577	685	537
July	61	20,571	14,484	5,343	4,710	816	650
August	61	13,813	11,176	4,787	4,194	626	537
September	36	11,901	9,563	4,640	4,046	667	570
October	31	12,923	10,878	4,700	4,349	698	621
November	31	11,956	10,590	4,701	4,340	563	601
December	50	13,540	12,189	6,420	6,299	863	794
Total	574	165,068	139,670	57,503	51,703	8078	6967
Mean		288	243	100	90	14	12
1990	572	165068	139708	57066	52044	7066	6337
1989	360	125238	104655	33475	27630	4654	4600
1988	364	95678	84225	25868	19908	3949	4026

Source: Kolaka Port Office. MOC

Table 2-8-7A Statistic Data in Kolaka Sea Port

Year	No of Trip	Passenger		Cargo (ton)	
		Landing	Boarding	Unloading	Loading
1987	1,071	5,543	3,437	10,423	1,301
1988	1,143	8,898	9,226	27,694	2,900
1989	1,379	19,271	20,973	33,893	49,322
1990	1,853	19,581	17,005	22,252	9,982
1991	3,211	54,418	48,516	60,822	37,642

Source: Kanwil of Southeast Sulawesi Province. MOC