THE REPUBLIC OF INDONESIA

REPORT

OF

THE FEASIBILITY STUDY

ON

THE ELECTRIFICATION PROJECT OF MAIN LINE IN JAVA

APPENDIX

FEBRUARY 1986

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)



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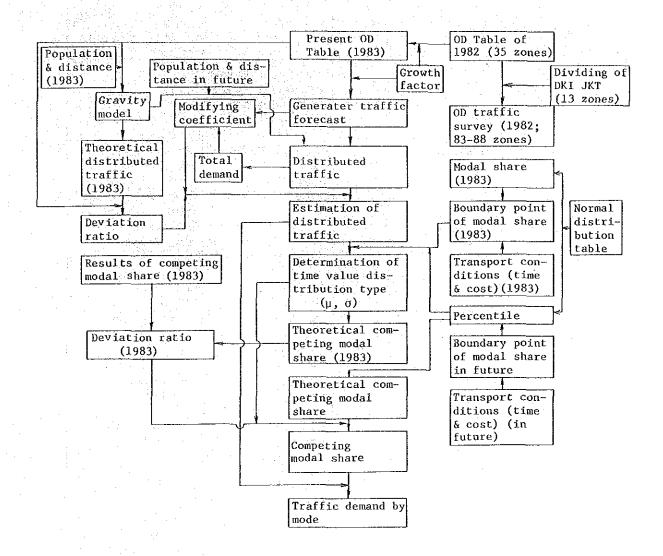
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Appendix 4-2-1 Detailed Flow Chart of Traffic Demand Forecast



Note: Gravity Model is applied only to passenger traffic demand forecast.

Appendix 4-3-1 Zoning

NO.	Zone Name	Kabupaten & Kotamadya	Kecamatan	Kelurahan
1	Merak	Serang		
2	Pandegelang	Pandegelang		
3	Rankasbitung	Lebak		
4	Tanggerang	Tanggerang		
5	Ravabuaya	DKI Jakarta	Penjaringan Cengkareng, Kebon Jeruk	Kamal Muara,Kapuk Muara
6	Kebayoran	DKI Jakarta	Kebayoran Lama, Kebayo- ran Baru, Cilandak	
			Penjaringan	Pejagalan, Muara, Angke, Penjaringan
7	Duri	DKI Jakarta	Grogol Petamburan Gambir	Jelambar, Grogol, Tomang Cideng, Duri Pulo
			Tambora Grogol Petamburan	Tanjung Duren, Pal Merah
		The state of the s		Jatipulo,Kota Bambu, Silipi Petamburan
8	Tanahabang	DKI Jakarta	Gambir	Petojo Selatan
			Tanahabang	Mangga Dua Utara,
9	Kampung	DKI Jakarta	Penjaringan	Pademangan Barat, Pademangan Timur
	Bandung			
10	Jakarta	DKI Jakarta	Savah Besar	Karanganyar,Kartini, Mangga Dua Selatan
			Taman Sari	D
11	Gambir	DKI Jakarta	Gambir	Petojo Utara, Gambir, Kebon Kelapa
			Savah Besar	Pasar Baru
12	Hanggrai	DKI Jakarta	Menteng, Setiabudi, Tebet	
13	Pasar Senen	DKI Jakarta	Savah Besar Kemayoran Senen Cempakaputih	Gunung Sari Utara
1.4	Tanjung Priok	DVY Johanna	Tanjung Priok	
14	Tanjung Priok	Dri Jakarta	Pulo Gadung, Matraman	
			Jatinegara	Kampung Melayu,Kelender Bidara Cina,Bali Mester
15	Jatinegara	DKI Jakarta		Rawbangke, Cipinang Besa Cipinang Cempedak,
	* **		100	Cipinang Muara, Pondok Bambu
16	Pasarminggu	DKI Jakarta	Mampang Prapatan, Kramat Jati,Pasar Rebo Pasarminggu	
17	Kelender	DKI Jakarta	Jatinegara Cilincing, Koja, Cakung	Duren Savit,Malaka, Pondok Kelapa
18	Bekasi	Bekasi		
19	Bogor	Bogor, Kodya Bogor	 	
			1	
20	Purwakarta	Pruwakarta		
21	Cikampek	Karavang		
22	Pegadenbaru	Subang		

NO	Zone Name	Kabupaten & Kotamadya	Kecamatan	Kelurahan
24	Cianjur	Cianjur		
25	Bandung	Bandung, Kodya Bandung, Sumedang		
26	Jatibarang	Indramayu		
27	Jativangi	Majalengka		
28	Cirebon	KUningan, Cirebon, Kodya Cirebon	1,4 1 1 4.	28 d
29	Brebes	Brebes		
30	Banjar	Garut, Tasikmalaya, Ciamis, Cilacap, Banjarnegara, Banyumas, Wonosobo, Purbalingga		
31	Semarang	Tegar, Kodya Tegar, Pemalang, Pekalongan, Batang, Kodya Pekalongan, Semarang, Kodya Semarang, Kendal, Demak, Jepara, Kudus, Pati, Grobogan		
32	Yogyakarta	Kebumen, Purworejo, Purworejo, Kodya Yogyaharta, Temanggung, Magelang, Kulon Progo, Sleman, Bantul, Gunung, Kidul, Kodya Surakarta, Klaten, Boyolali Sukoharjo, Pacitan, Sragen, Karanganyar, Wonogiri		
33	Surabaya	Rembang, Bojonegoro, Tuban, Sumenep, Blora, Lamongan Mojokerto, Kodya Surabaya, Bangkalan, Surabaya (Gresik) Kodya Mojokerto, Sidoarjo, Sampang, Pamekasan		
34	Madiun	Ponorogo, Magetan, Ngawi, Madiun, Kodya Madiun, Jombang, Nganjuk, Kediri, Trenggalek, Tulungagumg, Blitar, Malang		
35	Jember	Lumajang, Pasuruhan, Kodya Pasuruhan, Probolinggo, Kodya Probolinggo, Jember, Bondowoso, Situbondo, Banyuwangi		

Appendix 4-4-1 Regression Model for Estimation of Bus Passenger Traffic

The following regression model, based on the actual data in Japan, was used for the estimation:

$$\ln y = -5.7738 + 0.9955 \ln x \ (0 \le y \le 1)$$
(8.887)

Where:

y : share by bus

x : distance (km)

 R^2 (coefficient of determination) = 0.832

R (correlation coefficient) = 0.912

t value in () (to indicate reliability of the parameter)

Appendix 4-4-2 Present Passenger OD Table (1983)

~		1.				ď,					٠.							. :																											
pass	REBUN	0.6	0.0	0	333.7	0.0	7	7	0.0	0.0	0.0	2.0	0	0.0	0.7	7.7	6.4	38.4	23.52	[E.]	্ন 	427.8																							
: 1,000	. 14T I WAN 28.	0.0	0.0	0.0	0.0	o. O	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0	٠.												-										
(Unit:	26. JATIBAN 27		0.0	0.0	93.9	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	2.4	6.9	<u>∞</u> .	3.6	9.6	0.8	9.0		120.6		IUIAL	S. 1.		0.0	4,139.4	27.2	86.3	18.4	8.9	11.11	1,045.6	120.7	0.0	427.8	124.9	925.8	925.4	2,203.1	2,211.4	1,450.3	445.3	14,182.2
	BANDUNG	0.0	0.0	0.0	415.1	1.0	2.0	0	0 0	~ ·	0.0	0.0	0.0	0.0	0.0	255.1	0.0	249.8	73.1	34 34	2.7	1.045.8	2007	30. JEMBEK	0	0.0	0.0	ر. دع	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.2	0.0	ဖွဲ့	0.2	33.3	297.5	89 0.98	0.0	445.4
Fynress	24. CLAN, IUR 25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	4.3	0.0	0.0	0.0	0.0	3.4	0.0	0.8	0.1	0.0	0.0	11.3			2.1	ກາ	0.0	318.6	0.0	1.3	0.1	0.0	0.0	37.5	9.0 0	0.0	11.5	2.3	34.7	٥. ٥	52.0	892.7	0.0	6. 86	1,450.4
Railway		0.0	0.0	0.0	4.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	8.9	7,100,000	33.SUKABAY 34.MAUTUM	2.1	0.0	0	523.3	0.0	ır.	0.3	0.0	0.1	78.1	9.0	0.0	23.8	1 1	78.8	121.7	189.8	0.0	892.7	297.5	2,211.5
Mode:	E S	0.0	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0 0	0.2	0.0	2.3	2.1	ਰਾ: ਹ	2.7	5.1	0.3	0.1	0 0	18.4	Printing on the		4.2	0.0	0.2	1,293.9	0.1	9.2	5.1	0.0	9.0	249.8	9.6	0.0	36.4	12.7	160.1	145.8	0.0	189.8	52.0	33.3	2,203.2
	1 CIKAMP	0.0	0.0	0.0	47.1	ф. О	0.0	0.0	0.0	0	2.0	0.1	0.0	2.2	2.9	14.3	4.1	9.5	го 	<u>ب</u>	0.0	86.4		LSCHAKAN	0	0	0.0	638.4	0.0	4.1	2.7	0.0	0.0	0.0	3.8	0.0	6.4	9.1	0.0	0.0	145.8	121.7	0.0	0.2	925.5
(1983)	20. PRUMAKA 2	0.0	0.0	ი.ი	15.3	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	10.4	0.0	0.1	0.0	0.0	0.0	27.4	0,000	30.BAN AK 31.SEMAKAN	0	0.0	0.0	350.5	10.4	14.3	1.4	0.1	3.4	255.1	1.8	0.0	7.2	0.4	0.0	0.0	160.1	78.8	34.7	6.8	925.8
On Table	611	0.0	0.0	0.0	0.0	15.3	47.1	4.2	4.0	0.0	415.1	94.0	0.0	334.7	94.2	351.3	639.3	1.298.3	525.4	320.7	7.7	4.151.3	· -	−i	0.1	0.0	0.0	94.1	0.0	2.9	2.1	0.0	0.0	0.0	<u></u>	0.0	0.7	0.0	₽ . 0	1.6	12.7	1.1	2.3	0.0	124.8
Passenger (1.MERAK	2. PANDECLANG	3. RANGKASBI TUNG	4~19.14BUTABEN	20. PRUVAKARTA	21. CIKANPEK	22. PECADENBARU	23. SUKABUMI	24 CLAN JUR	25. BANDLING	26 JATIBARANG	27 JATIVANGI	28. CIREBON	29. BREBES	30. BANJAR	31 SEMARANG	32. YOGYAKARTA	33. SURABAYA	34 . MAD I UN	35. JEMBER	T0TAL	<u> </u>	n	I.MEKAK	2. PANDEGLANG	3. RANCKASBITUNG	4~19. JA80TA8EK	20. PRUWAKARTA	21.CIKAMPEK	22. PECADENBARU	23. SUKABUMI	24 CLAN JUR	25 BANDUNG	26. JATIBARANG	27 SATIWANGI	28. CIREBON	29.8REBES	30. BANJAR	31 SEMARANG	32. YOGYAKARTA	33. SURABAYA	34.MADIUN	35. LEMBER	TOTAL

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	Ak	2. PANDEGLANG	CKASBIT	4~19. JABOTABEK	UWAKART	21. CIKAMPEK	22 PECADENBARU		di II NV	200	Zo.BANDUNG	ZO. LAT I BAKANG	27. JATIWANGI	REBUN	EBES	N IAR	MARANG	CVAKART	32 CHEARAVA	NIN	QU QX	1001			/ /	PECT ANG	TKASPIT	. IABOTAF	MAKARTA		SADENBARU		S C	DING	FIBARANG	LIVANG)	SFRON.	SES	V I A R	TARANG	YAKARTA	RABAYA	NO!	
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(Unit		22.7	0.0	1.838.3	107.8	94.2	367.8	0.0	0.0	509.7	0.0	120.9	1,101.2	109.4	39.9	219.2	132.4	0.0	0.0	0.0	4,757.0	TOTAL	1.156.8	799.6	1,031.9	32.832.0	2,679.5	4,754.1	4.038.2	4.097.1	3,172.2	21,045.8	4,757.0	2,920.6	11.389.7	3,116.8	18, 198.3	25, 338, 4	15,567.1	28, 737.3	17,390.4	17,690.4	220,713.0	
25. RANDING 2	4.03	305.6	144.0	5.744.8	577.2	586.7	1.144.8	634.2	1.646.1	0.0	509.7	454.4	1,801.0	48.2	5.816.8	607.2	203.8	183.4	137.5	50.3	21.045.6	35 IFMRER	0.0	0.0	0 0	280.2	0.0	71.3	0.0	0.0	0.0	50.9	0.0	0.0	20.4	0.0	35.7	295.5	168.1	10,593.0	6,175.3	0.0	17,690.4	
24 CLANTITE	ြ	65.3	8.1	929.4	49.1	3.7	85.4	49.4	0.0	1.646.1	0.0	4	13.6	0.0	241.1	0:0	5.1	30.0	0.0	0.0	3,172.2	SA MADITIM	⊢.	0.0	0.0	856.0	10.2	0	0.0	5.1	0.0	137.5	0.0	5.1	45.8	0.0	147.7	335-8	2.394.0	7.272.8	0.0	6,175.3	17,390.4	
Bus 23 SIRARIM	1	160.7	747:3	1.892.0	0.0	11.6	8.3	0.0	49.4	634.2	0.0	18.4	192.9	0 0	207 7	0.0	20 a	0.0	5.1	0.0	4.097.1	22 CHRARAY		5.	0.0	1.559.1	0	5.1	5.1	0.0	30.6	183.4	0.0	0.0	147.7	ව. 0	101.9	7,158.9	1.644.0	0.0	7,272.8	10,593.0	28,737.3	
Mode:		0.0	0.0	1,026.3	542.5	347.7	0:0	8.2	85.4	1.144.8	367.8	2.4	206.0	32.5	41.3	137.5	86.8 8	5.1	0.0	0.0	4.038.2	32 VOCVAKAL		0.0	0.0	2,282.1	15.3	305.6	86.6 8	20.4	5.1	203.8	132.4	69	437.1	82.7	2.629.4	5,004.6	0.0	1,644.0	2,394.0	168.1	15,567.1	
CIKAMPFI	57.9	3.1	0.0	1.913.7	274.5	0.0	347.7	11.8	3.7	586.7	04.2	10.0	631.8	0.0	304.8	132.4	305.6	5.1	0.0	71.3	4.754.1	31 SPMARAN		0.0	0.0	5,700.3	30.6	132.4	137.5	Ţ			219.2		7			:	.,	7,158.9	335.8	285.5	25,338.4	
(1983)	35.1	74.1	0.0			-		0.0	49.1	577.2	107.8	0.0	294.2	০	121.8	30.8	15.3	0.0	[0.2	0.0	2.679.5	20 RAN AR	125	20.4	127.4	3,241.5	121.8	304.8	41.3	207.7	241.1	5,816.8		- 1	1	.	l	Ш			147.7	35.7	18,198.3	
OD Table	0	0.0	0.0	0.0	645.8	1.974.7	1.030.4	2.939.0	1.043.8	6.643.7	1.954.5	718.1	3.881.8	666.7	3,496.3	5,720.7	2,368.7	1.594.8	861.1	280.2	35.820.3	29 RRFREC .	1	0.0	0.0	656.5	10.5	0.0	32.5	0.0	0.0	48.2	109.4	0.0	85.8	0.0	542.9	1.538.1	82.7	0.0	0.0	0.0	3,116.8	
Passenger (2.PANDECLANG	3. RANGKASBITUNG	4~19. JABOTABEK	20. PRUWAKARTA	21.CIKAMPEK	22.PECADENBARU	23.SUKABUMI	24 CLAN IUR	25.BANDUNG	26.1ATIBARANG	27 JATIWANG	28.CIREBON	29. BREBES	30. BAN JAR	31 SEMARANG	32. YOGYAKARTA	33. SURABAYA	34.MADIUN	35. JEMBER	TOTAL		_	2. PANDEGLANG	3.RANGKASBITUNG	4~19. JABOTABEK	20. PRUWAKARTA	21.CIKAMPEK	22. PECADENBARU	23.SUKABUMI	24.CIANJUR	25. BANDUNG	26.JATIBARANG	27. JATIWANGI	28.CIREBON	29.BREBES	30.BANJAR	31 SEMARANG	32. YOCVAKARTA	33.SURABAYA	34.MADIUN	35. JEMBER	TOTAL	

Appendix 4-4-3 Present Freight OD Table (1983)

ton	Š	0.0	0	<u>်</u>	-	0	45.0	0.0	0	0	0	0	0	0	0	2	0	0	8.4	0.0	0.0	3	
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es	26.				 				1. 22							L							
Commodities	PENC	0.2	0	0.0	4.5	0	21.8	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	69	6.0	1.2	7.4	5.9	ري وي	5.2	
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Mode:	20. PRIJAKKA 21. CIKAMPE 22. PEGABEN 23. SYKABIN 24. CIAN JUR 25. BANDING 26. JATIBAR 27. JATIWAN 28. CIREBO	0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	ି	0.0	0.0	0.0	0.7	0.0	0.0	3.3	0.0	0.0	4.0	:
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83)	4KA	0	0	0	17.7	0	0	0.0	0	0	0	0	0.0	0.0	0.0	8	0.0	0.0	0.0	0.0	0.0	8.5	 ` '
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Table	6[-	∞			7.						-			١)	a.	a	7	35	3	7	295.2	
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t OD	0		ANG	3. RANCKASBITUNG	OTABE	20. PRIMAKARTA	ΈK	22. PECADENBARU		<u>~</u>	S	RAMG	NG	Z	V J		NG.	ARTA	٧٨				ļ
Freight		RAK	PANDEGLANG	NCKAS	9. JAB	RIMAK	KAMP	EGADE	23. SUKABUM	24. CLANJUR	25. BANDUNG	IAT I BARANG	7 JATIWANG	(REB)	REBES	ANJAR	31.SEMARANG	32. VOCYAKARTI	33. SURABAYA	S C	35. JEMBER		
Fre	٥	1. MERAK	2.PA	3. RA	(~)	20 P	21.C	22.P	23.5	24.C	25. B.	92	27.]	28. CLREBOIN	29 B	30.8	31.5	32. 1	33.5	34.MADIU	35.	TOTAL	
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	TOTAL	82.8	0.0	0	225.0	1.7	138.3	2.3	0.0	0.1	28.9	0.0	0	2.7	0.0	365.8	49.7	62.8	1.058.9	22.3	28.2	2.069.3
	35. JEMBER	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	195.8	0.0	0.0	195.8
	<u></u>	0.0	0	000	8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	00	2.4	0.0	0.0	8.77.3	0.0	0.0	630.3
	SURABAY 34 MADIUM	0.2	0.0	0.0	75.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	20.3	40.1	58.8	0-0	6.1	20.8	223.8
	31.SEMARAN 32.YOCYAKA 33.	0.0	00	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	235.4	0.0	0.0	38.1	1.2	0.0	275.5
	EMARAN 32.	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	71.1	0.0	0.1	36.2	1.3	0.3	118.8
		0.1	0.0	0.0	3.3	0.0	20.2	0.5	0.0	0.1	13.2	0.0	0.0	0.0	0.0	0.0	o. د. د	0.0	45.7	1.6	0.3	85.5
	BES 30. BANJAR	0.0	0 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	0.0	0.0	1.2	0.0	0.0	17.7
	0 29.BREBES	1		CNC	BEK	A			1			J						Ą				
	(MERAK	2. PANDEGLANG	3. RANCKASBITUNC	4~19.JABOTABE	20. PRUVAKARTA	21.CIKAMPEK	2. PECADENBAR	3. SUKABUMI	24.CIANJUR	5. BANDLING	S. JATIBARANG	7. JAT I WANG!	8.CIREBON	9. BREBES	30.BANJAR	1.SEMARANG	2. VOGYAKARTA	3.SURABAYA	34. MADIUN	35. JP18ER	TOTAL
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16.7	000	0 0	200	0.0	47.4	0.0	0	0.0
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0.0	0.0	0.0	0.0	0.0	6.707	0.0	46.8	1,370.8
0.0	0.0	0.0	0.0	0.0	679.9	100.4	0.0	98.1
54.2	0	0.0	16.1	0.0	401.5	988.6	133.5	0.0
	9	0.0	0.0	0.0	4.0	0.0	0	15.0
5	0	0.0	0.0	0.0	563.3	8.1	10.1	92.7
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307.6 403.6	9	479.2	765.2	581.5	4.377.0	838.9	325.9	2,921.7
30. BANJAR 31. SEMAR	AN 32	31.SEMARAN 32.YOCYAKA 33	33. SURABAYI 34. MADIUM	1	35. JEMBER	TOTAL		
2.4	1	0.0	12.5	7.3	3.1	83.6	. •	
	0.0	0.0	0.0	0.0	0.0	18.2		
	0.0	0.0	0.0	0.0	0.0	3.6		
7	19.1	389.8	739.5	78.9	21.7	6,742.2		
0.0	0.0	2.1	0.0	0.0	0.0	1,626.4		
	8.8	6.2	0.1	0.0	0.0	2,441.2		
22.2	2.1	0.0	0.0	0.0	0.0	938.4		
	2.9	1.1	0.0	0.0	0.0	424.0		
	0.0	0.0	0	0.0	0 0	188.1		
	18.6	25.0	45.5	14.8	0	2,709.0		•
	48.9	∞	0.0	1.1	0.0	2,304.5		:
72.7	1.6	0.0	0.0	0.0	0.0	1,044.4		
	6.3	11.4	32.3	4.1	1.0	2,464.8		
	103.6	3.5	0.0	0.0	0.0	209.0		•
	1.	538.1	33.9	5.2	9.0	2,228.8		
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Appendix 4-4-4 Increase Rate of Product by Commodity

Commodity code	Commodity	Increase rate (%)
1	Rice	4.9
2	Maize	57.6
3	Sugar	16.1
4	Coal	-18.8
5	Non Meta. Mining	-6.1
6	Cattle	4.7
. 7	Petroleum	15,7
8	Steel	15.8
9	Cement	2.5
10	Fertilizer	11.7
11	Paper	-8.6
12	General Cargo	4.3

Source: STATISTIC YEAR BOOK OF INDONESIA

Appendix 4-5-1 Distance and Running Time of Railway

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Appendix 4-5-2 Distance and Running Time of Road

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Note: Time 2 is taken account of speeding up on highways.

Appendix 4-5-3 Link Distance and Cruising Time of Seaway

Node From To	Distance (km)	Time (min.)	Node From To	Distance (km)	Time (min.)
1 - 9	120	194	14 - 28	278	451
1 - 14	120	194	14 - 31	437	709
1 - 28	352	571	14 - 33	726	1177
1 - 31	509	826	14 - 35	769	1247
1 - 33	813	1318	28 - 31	204	331
1 - 35	856	1388	28 - 33	515	835
9 - 28	278	451	28 – 35	557	903
9 - 31	431	709	31 - 33	350	568
9 - 33	726	1177	31 - 35	393	637
9 - 35	769	1247	33 - 35	89	145

Appendix 4-5-4 Inter-zonal Distance of Railway & Road in Java Island

				(Unit: km)	
Ļ	0	н	7	3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 3	33
L	1 Merak		88	. ७९१६५१ ऽऽ१,३९१ ४६४ ४२४ ऽ०१,ऽ४४ ४८१ ४२१ ४६१ ऽ११ ऽ११ ३११ ४५१ ६९६ १९४४ ४४ ४४ ४४ ४४ ४४ ४४ ४४ ४४ ४४ ४४ ४४ ४४	,057
I	2 Pandegelang	25		19115/105 85 96 92/100/102/102 98/107/106/101/107/104/115/143/102/122/2002392622267343307374/185316058117371,00	,007
<u> </u>	3 Rangkasbitung	79	18	96 86 66 77 73 81 83 83 79 88 87 82 88 85 96124172153193181220243248324288352399512586792718	988
L:	4 Tanggerang	95	86	73 \ 10 30 19 23 23 23 23 30 29 30 29 32 38 35 46 74122103143131170193198274238302249462536742668	938
L!	5 Rawabuaya	105	96	83 10 \ 20 9 13 13 15 20 19 20 19 20 28 28 28 36 6412 93433121160183188264228292339452526732658	928
L	6 Kebayoran	128	119	106 33 23 11 7 15 17 17 13 22 21 16 22 19 30 58106 87127115154177182258222286333446520726652 9	922
	7 Duri	115	106	93 20 10 13 4 4 6 11 10 11 10 13 19 16 27 55103 84124112151174179255219283330443517723649	919
	8 Tanahabang	119	110	97 24 14 9 4 8 10 10 6 15 14 9 15 12 23 51 99 80120108147170175251215279326439513719645 99	915
	9 Kampung Bandan	120	111	98 25 15 18 5 9 7 12 14 8 6 14 23 17 28 59104 85125116155175180256220284531444518724650 9	920
L'	10 Jakarta	119	110	97 24 14 17 4 8 1 5 9 5 7 11 18 14 25 54101 8212211115017217253217281328441515721647	917
L	11 Gambir	122	113	100 27 17 12 7 3 7 6 4 10 12 7 13 10 21 49 97 78118106145168173249213277324437511717643	913
	12 Manggarai	125	116	103 30 20 12 10 6 11 10 4 9 16 3 9 6 17 45 93 74114102141164169245209273320433507713639	606
<u> </u>	13 Pasar Senen	124	115	102 29 19 14 9 5 9 8 2 4 8 6 18 9 20 54 96 7711711150167172248212276523436510716642	912
L	14 Tanjung Priok	. 127	118	105 32 22 25 12 16 7 8 14 17 16 14 25 17 28 61104 85125118457175180256220284331444518724650	920
L.,	15 Jatinegara	129	120	107 34 24 16 14 10 15 14 8 4 6 13 12 3 14 48 90 71111105144161166242206270317430504710636	906
<u>. </u>	16 Pasarminggu	133	124	111 38 28 11 18 14 19 18 12 8 12 25 12 12 26 36102 83123 93132173178254218282529442516722648	918
L	17 Klender	132	123	110 37 27 19 17 13 18 17 11 7 9 16 3 15 11 11 51 87 68108108147158163239203267614427501707633	963
I	18 Bekasi	777	135	122 49 39 31 29 25 30 29 23 19 21 28 15 27 12 62 76 57 97119158147152228192256303416490696622	892
	19 Bogor	164	118	100 78 68 51 58 54 59 58 52 48 52 65 52 40 55 67 138119159 57 96156214290254318312478544758684	954
<u>. </u>	20 Purwakarta	227	218	20513312211411210811311210611021104111 98110 95 83150 7 19 58140101 71114190154218027378452658584	854
1`	21 Cikampek	208	199	186113103 95 93 89 94 93 87 83 85 92 79 91 76 64131 19 40159120 90 95171135199246359433639565	835
L	22 Pegadenbaru	268	259	2461731631551551491541534491545243139451136424191, 70, 60 199460130 55131, 9515928631939599525	795
L	23 Sukabumi	225	179	1611391291121191151120119113109113126113101116128 61131150177 39 99254330294358255518487798643	953
L	24 Cianjur	238	192	174152142125132128133132126122126139126114129141 74 99118145 32 60215291255319216479448759604	914
l	25 Bandung	297	257	239202192184182178138183182517418114181168179165153139 70 89 80 97 65 18526125289156449388701544	854
<u> </u>	26 Jatibarang	303	294	281208198198199188184189188182178180187174186171189226114 95 63240208143 76 40104290264338544470	740
I	27 Jatiwangi	370	330	312275265257255251256255249245247254241252233826212143162153170138 73 94 361002862609334540466	736
I	28 Cirebon	362	353	3402572572429247247247247247247237239245239218250173154122208176111 59 38 6425024298504430	700
الا	29 Brebes	41.5	907	393920310502300296501500294290292299286298283271503226207175261229164112 91 53 27160275440366	636
	30 Banjar	077	700	3825455335527325521326525319315817324511322308296282213232223240203143184153125173	2
لـــنا	31 Semarang	571	295	549476466458456452457456450446448455442454439427459382363331417385320468247209136334	5
L	32 Yogyakarta	645	634	6165506405325305265315305245205252951652851350151644743740547445777321283212832458374054753740557	5
1	33 Surabaya	841	832	8197467367287267227277267207167187257127247096977296526336016876555905383174794265247729573737373737373737373737373737373737373	216
	34 Madiun	733	724	71163962862061861461961861260861061760461660158962154452254937735474554304039743543104549493774364	
L	35 Jember	1,039	1,030	1,0179449349269249209259249189149169239109229678959276508317999885853788736715677624683468449198310	7

Note: The figures on upper part of an oblique line show the railway distances, and those on lower part show the road distances.

Appendix 4-5-5 Terminal Transport Cost and Time

· 		· ·			, , , ,	r					ı	-		10.0
me (hour)	Ship	78		1		78		78	1	78	84			-
transport time (hour	Road	3	3	3	2	5	9	7	7	E.	3	m	3	0.5
Termianl t	Rail	72	72	72	72	7.2	72	72	24	87	48	72	72	-
cost (Rp.)	Ship	3,500	-	•	•	4,630	1	7,630		3,500	3,500	1	1	1
trasport cos	Road	2,850	2,850	2,850	2,150	2,150	2,850	005	2,310	2,850	2,850	2,850	2,850	100
Terminal t	Rail	3,850	3,850	3,850	2,650	2,650	3,850	260	1,925	3,850	3,850	3,850	3,850	200
Item	Commodity	Rice	Maize	Sugar	Coal	Non Metalic Mining	Cattle	Petroleum	Steel	Cement	Fertilizer	Paper	General Cargo	Passenger
, on)		2	3	7	S	9	7	8	6	10	11	12	
				÷			ц	giə:	IJ					

Note: Terminal trasport time of railway includes marshalling time on the way.

Apopendix 4-5-6 The Fare/Tariff Estimation Formulas

- 1. Passenger
- (1) Railway (Rp./passenger)
 - a. Express train
 - (a) $d \le 200$ y = 687 + 4.742d
 - (b) 200 < d < 700y = 773 + 5.578d
 - (c) $d \ge 700$ y = 580 + 6.367d

where, y: Rp./passenger d: km

b. Local train $y = (17.25 - 5.1214 \log d) \cdot d$

(2) Bus (Rp./passenger): y = 6.20d

To the bus fare, highway toll (96.3 Rp./km/vehicle) was added on a per-passenger basis, adjusting it by the fixed use ratio between non-toll roads and highways.

- 2. Freight
 - (1) Railway (Rp./ton)

The same method used for passenger transport fare was applied. The tariff estimation formulas for each freight commodity are as follows:

a. Rice and maize

$$y = 268.92 + 12.55d$$

b. Sugar and non-metal products

$$y = 674.78 + 10.49d$$

c. Coal, cement and fertilizer

$$y = 462.33 + 16.40d$$

d. Cattle

$$y = 451.12 + 12.21d$$

e. Petroleum products

$$y = 27.96d$$

f. Steel, paper and general cargo

$$y = 569.62 + 12.61d$$

(2) Truck (Rp./ton)

Truck tariff for each freight commodity were set as follows:

a. Rice and maize

$$y = 2,950 + 15.65d$$

b. Sugar and non-metal mining products

$$y = 3,300 + 14.49d$$

c. Coal

$$y = 2,580 + 20.40d$$

d. Cattle

$$y = 2,310 + 14.65d$$

e. Petroleum products

$$y = 26.53d$$

f. Steel

$$y = 2,500 + 22.81d$$

g. Cement and fertilizer

$$y = 2,820 + 16.10d$$

h. Paper and general cargo

$$y = 3,200 + 14.81d$$

- (3) Coastal shipping (Rp./ton)
 - a. Rice, cement and fertilizer

$$y = 2,258 + 7.90d$$

b. Non-metal mining products and petroleum products

$$y = 3,387 + 11.85d$$

Appendix 4-6-1 The Forecasting Procedure of Generated Passenger Traffic

1. Making the data index

The indices of population, GDP, rail passenger traffic and the number of buses registered were made with the 1983 data as 100.0.

The following abbreviations are used:

IP : Population index

IGDP: GDP index

IRP: Index for rail passenger traffic

IBO: Index for the number of buses registered

2. Standardizing the index

IGDP, IRP and IBO were divided by IP to obtain the following standardized indices:

- a. RIGP = IGDP/IP
- b. RIRP = IRP/IP
- C. RIBOP = IBO/IP

3. RIRP and RIBOP forecasting models

The simple regression models using RIGP as an independent variable and RIRP and RIBOP as dependent variables were derived as follows:

(1) RIRP forecasting model

$$RIRP = -0.5473 + 1.5524 \times (RIGP)$$
(5.2370)

 $R^2 = 0.821$, R = 0.906

Data observation period: 1976 to 1983

(2) RIBOP forecasting model

RIBOP =
$$-0.9743 + 1.7569 \times (RIGP)$$

(7.561)

 $R^2 = 0.93$, R = 0.868

Data observation period: 1973 to 1983

4. Forecasting RIRP and RIBOP

The indices of population and GDP in the forecast years were made to obtain RIGP. The RIGP indices were then substituted into the above two models to determine RIRP and RIBOP in the forecast years.

5. Forecasting IRP and IBO

RIRP and RIBOP forecast in 4 above were multiplied by IP to obtain IRP and IBO in the forecast years.

6. Forecasting generated traffic for railway and bus

Using the following equations, generated passenger traffic for railway and bus was calculated based on forecast IRP and IBO as well as rail and bus passenger traffic volumes in 1983.

a. Generated railway passenger traffic (DRP)

DRP = IRP/100 \times 16,422,000 passengers

b. Generated bus passenger traffic (DBP)

DBP = $IBO/100 \times 220,711,000$ passengers

7. Generated passenger traffic (TDP)

The future generated passenger traffic (TDP) was obtained using the following equation:

TDP = DRP + DBP

Appendix 4-6-2 The Estimating Method of the Growth Factor

During the PELITA IV period, the future production volume was based on the forecast data in it, and was determined using the correlation with the future GDP or the growth rate of GDP, for the years which are not covered in PELITA IV (see Table 4.6.3.1). The past production record is shown in Table 4.6.3.2.

The growth rate of rice was determined on the basis of the population growth rate of Java. While the future production for the other commodities were determined using the following regression models.:

. Maize	Y = -215.36 + 0.1765X	(Y: 10 ⁴ ton)
. Sugar	Y = -90.00 + 0.07680X	(Y: 10 ⁴ ton)
Non-metal mining	Y = -303,516 + 910.352X	(Y: 106 Rp.)
· Cattle	Y = -54.67 + 0.07739X	$(Y: 10^9 \text{ Rp.})$
· Steel	Y = -1,304 + 1.5674X	(Y: 10 ³ ton)
· Cement	Y = -4,645.68 + 16.18X	(Y: 10 ³ ton)
. Paper	Y = -102.74 + 0.2011X	(Y: 10 ³ ton)
Y: Production,	X: GDP (10 ⁹ Rp.)	

Appendix 4-6-3 Basic Data for Demand Forecast for Generated Passenger Traffic

-				,		سننيم				<u> </u>	·					
	$\left(\frac{\text{IGDF}}{\text{IP}}\right)$		0.467	0.508	0.548	765.0	779.0	0.700	0.725	0.747	0.810	0.842	0.908	0 993	966.0	1.000
	$\left(\frac{IRP}{IP}\right)$		1.412	1.349	1.050	0.716	0.686	865.0	0.521	0.533	0.735	0.917	0.937	6:60	0.939	1.000
	$\left(\frac{\text{IBO}}{\text{LP}}\right)$		0.134	0.148	0.167	0.190	0.209	0.233	0.248	0.293	0.362	0.437	0.540	0.679	0.832	1.000
ssenger	Index (IRP)		6.801	105.9	83.5	57.6	55.9	€.64	45.0	8.94	65.7	83.4	88.3	90.4	92.2	100.0
Railway passenger	Persons (thousand)		47,992	46,655	36,792	25,395	24,643	21,711	19,839	20,627	28,960	36,758	38,923	39,827	40,605	790,77
rice)	Index (ICDP)		36.0	39.9	43.6	47.8	52.5	57.7	62.6	9.59	72.4	76.5	85.5	92.6	8.7.8	100.0
CDP (1975 price)	Rp (billion)							8.750,8	6,551.3	7.698,9	7,579.4	8,012.9	8,955.6	10,003.4	10,233.5	10,468.9
of bus ered	Index (IBO)		10.3	11.6	13.3	15.3	17.0	19.2	21.4	25.7	32.4	39.7	50.9	65.4	81.7	100.0
No. of br	Units	!	10,428	11,663	13,370	15,440	17,121	19,406	21,567	25,921	32,723	40,082	51,399	65,958	82,465	100,895
tion	Index (IP)		77.1	78.5	79.5	80.5	81.5	82.5	86.3	87.8	89.4	6.06	94.2	96.3	98.2	100.0
Population	Persons (thousand)		74,670.8	76,086.3	(77,029.8)	(77,984.9)	(78,952.0)	79,929.3	83,619.9	85,074.5	86,575.6	88,102.7	91,269.5	93,340.3	95,103.4	96,892.9
Item		Year	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983

Note:

All data are on Java. Source: Statistic Indonesia 1981, 1983 (Central Statistics Bureau) Pigures in () are estimated value. 42.6

Table 4.6.3.1 Production of Major Commodities (Actual and Planned in REPELITA IV)

<u> </u>	,	न ।			r an	- न		Γ -	ğ		
Remarks for 1988	Based on REPELITA IV	Based on REPELITA IV Correlation with GDP in agricultural sector	Same as above	Based on REPELITA IV	Based on Actual Gross Output Correlation with GDP in construction sector	Based on Actual Gross Output Correlation with GDP in agricultural sector	Crude oil production in REPELITA IV	Based on REPELITA Corelation with GDP in construction Sector	Based on Actual Gross Output Correlation with GDP in construction sector	Based on REPELITA IV	Based on REPELITA Correlation with GDP in construction sector
1988	28,620	5,720	2,520	9,390	577	290	623	3,489	11,970	5,610	512
1983	23,960	5,090	2,160	390	384	241	565	2,133	7,845	2,227	271
1982	22,840	3,230	1,860	087	607	230	887	1,842	7,650	1,994	297
1981	22,290	4,510	1,700	350	363	220	585	1,510	6,844	2,007	246
1980	20,160	3,990	1,830	300		212	577	1,334	5,852	1,985	232
1979	17,870	3,610	1,600	280	208	202	580	860	4,705	1,827	214
1978	17,520	4,030	1,520	260	154	781	597	598	3,629	1,437	155
1977	15,880	3,140			104			405	2,879	066	78
1976	15,840	2,570			72						
Unit	10³ ton	10³ ton	103 ton	10 ³ ton	10° Rp.	10 ⁹ Rp.	10 ⁶ Br	10³ con	10 ³ con	103 ton	IO³ ton
Commodity	Rice	Maize	Sugar	Coal	Non-metal mining	Cattle	Petroleum	Steel	Cement	Fertilizer	Paper

Table 4.6.3.2 GDP Trends by Sector (Actual and Forecast)

(Unit: 10⁹ Rp.)

	Year	Agriculture	Mining	Manu- facturing	Con- struction	Trans- portation	Others	Total
Actual	1976	2,944	952	930	385	343	2,603	8,156
	1977	2,981	1,070	1,057	464	428	2,871	8,871
	1978	3,135	1,049	1,236	529	514	3,104	9,567
	1979	3,256	1,047	1,395	563	560	3,345	10,165
	1980	3,425	1,035	1,705	639	609	3,756	11,169
	1981	3,594	1,069	1,878	720	677	4,117	12,055
	1982	3,670	940	1,901	758	717	4,341	12,325
	1983	3,846	957	1,943	805	753	4,541	12,842
Forecast	1988	4,330	1,080	3,180	1,030	980	5,790	16,390
	1992	4,610	1,230	4,240	1,210	1,170	7,090	19,550
	1997	4,950	1,430	5,700	1,410	1,430	8,520	23,440
	2002	5,870	1,700	6,770	1,670	1,700	10,130	27,840
	2007	6,980	2,020	8,040	1,980	2,020	12,030	33,070

Appendix 4-7-1 Population Forecast by Zone
(Unit: 1,000)

	77.6.48		<u> </u>	(0	nit: 1,000	
	Year			0000	2007	
Zone		1992	1997	2002	2007	
Zone						
code						
1	Merak	1,360.5	1,470.1	1,593.9	1,731.2	
2	Pandegelang	850.9	1,023.8	1,110.1	1,205.7	
3	Rangkasbitung	840.0	907.6	984.1	1,068.7	
4	Tanggerang	2,349.4	2,655.4	3,095.4	3,197.2	
5	Rawabuaya	990.9	1,105.0	1,256.1	1,696.8	
6	Kebayoran	1,083.2	1,208.0	1,373.2	1,435.6	
7	Duri	727.7	811.5	831.3	876.6	
8	Tanahabang	521.6	581.7	591 . 7	616.9	
9	Kampung Bandan	172.9	192.8	203.9	215.5	
10	Jakarta	260.9	267.1	271.5	283.8	
11	Gambir	106.7	115.2	117.5	123.0	
12	Manggarai	669.5	746.6	763.3	800.5	
13	Pasar Senen	649.2	663.9	675.1	705.8	
14	Tanjung Priok	333.3	371.7	422.5	441.4	
15	Jatinegara	959.6	1,070.2	1,106.1	1,167.6	
16	Pasarminggu	1,648.4	1,876.5	2,231.0	2,317.8	
17	Klender	1,158.7	1,341.9	1,547.4	1,737.5	
18	Bekasi	1,949.0	2,202.8	2,567.5	2,652.3	
19	Bogor	4,255.1	4,809.7	5,105.8	6,045.8	
20	Purwakarta	554.7	599.4	649.9	705.9	
21	Cikampek	1,526.5	1,649.4	1,788.4	1,942.4	
22	Pegadenbaru	1,291.2	1,395.2	1,512.8	1,643.0	
23	Sukabumi	1,846.1	1,994.6	2,162.7	2,348.9	
24	Cianjur	1,672.4	1,799.7	1,951.4	2,119.4	
25	Bandung	5,805.3	6,272.6	6,801.2	7,386.6	
26	Jatibarang	1,511.8	1,633.5	1,771.2	1,923.7	
27	Jatiwangi	1,162.1	1,255.6	1,361.4	1,478.6	
28	Cirebon	2,883.5	3,115.6	3,378.2	3,669.0	
29	Brebes	1,571.2	1,697.7	1,840.8	1,999.2	
30	Danjar	10,921.1	11,800.2	12,794.7	13,896.1	
31	Semarang	12,178.0	13,158.3	14,267.2	15,495.4	
32	Yogyakarta	14,496.3	15,663.3	16,983.5	18,447.1	
33	Surabaya	13,530.6	14,619.7	15,851.9	17,216.5	
34	Madiun	12,798.8	13,828.9	14,994.4	16,285.2	
35	Jember	8,906.2	9,623.2	10,434.2	11,332.5	

Source: REPELITA IV, Master Plan of JABOTABEK 2005, Master Plan DKI 2005, JABOTABEK PELITA IV and Statistical Year Book of INDONESIA (1983), etc.

Appendix 4-8-1 Distribution of Time Value at Boundary Point (ω_0)

(Unit: Rp./min.) Standard deviation (o) No. Commodity Mean value (μ) Rice 1.310 0.231 1 2 Maize 1.310 0.231 2.129 3 Sugar 0.550 4 Coal 0.609 0.131 5 2.129 0.550 Non-metal mining 0.609 6 Cattle 0.131 7 Petroleum products 0.476 0.065 5.078 8 1.236 Steel 9 Cement 0.609 0.131 0.609 0.131 10 Fertilizer 0.206 11 Paper 1.134 12 General cargo 1.134 0.206 -0.1401.186 Passenger

Notes: 1. Passenger figure is indicated in natural logarithmic value.

2. ω_0 takes normal distribution pattern.

Appendix 4-9-1 Passenger OD Table (1992)
Passenger OD Table (1992) [With] Mode: Express (Unit: 1,000 pass.) Appendix 4-9-1 Passenger OD Table (1992)

	1.	ŀ		L	0 0 0 0	2		۶	1111	
7) 	27.7X	2	Z. renauen 23	23. SUNABUR 2	4 - C I AN UK	DNUUNNA CZ	20. JA I BAN		20. CI NEDUN
1.MERAK	0.0		0.0	000	0.0	0.0	0.0) 11
2. PANDEGLANG	1.7. 1. 1		0.0	0 0	0.0	0.0	0.0	4.8		182.4
3.RANGKASBITUNG	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	8:1
4~19. JABOTABEK			69.7	315.8	N N	0.0	1.701.1	463.4	2.8	1,264.9
20. PRUMAKARTA		0.0	9.0	0.0	0:0	0.0	5.1	11/2 1/20 1/2	0.0	0.1
21.CIKAMPEK			0.0	0.2	0.0	0.0	2.9	2.7	0.0	217.0
22. PECADENBARU	315.6	0.0	0,77	0.0	0.0	0.0	0.0		0.0	44.1
23.SUKABUMI	5.5		0.0	0	0.0	4.1	0.0	0.0	0.0	3.0
24 CLANJUR	0.0		0.0	0.0	4.1	0.0	6.4	0.0	0 0	0.0
25.BANDUNG	1,702.0		2.9	0.0	0.0	6.4	0.0	2.2	0.0	0.0
26. JATI BARANG	468.2		2.7	800	0.0	0.0	2.2	0.0	0.0	3.5
27. JATIWANGI	2.8		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28.CIREBON	1,467.1	0.1	217.0	44.1	0.0	0.0	0.0		0.0	0.0
29.88585	168.0	0.2	1	31.3	0.0	0.0	0.0		0.0)*1
30.BANJAR	471.3	15.4	20.5	2.3	0.1	5.1	378.0			10.7
31. SEMARANG	1,241.8		21.9	14.6	0.0	0.0	0.0			3.6
32. VOGYAKARTA	2,404.1	0.0	53.4	14.6	0.0	1.0	370.1	18.6	A Section	54.0
33. SURABAYA	783.2	10	3.0	6 0	0.0	0.2	115.8		0.0	35.
34 MADIUN	539.7		0.5	0.0	0.0	0.0	52.1			17.(
SS. JEMBER	16.8	0.0	0.5	0.0	0.0	0.0	3.5	0.0	i O	6
TOTAL	9,667.7		394.3	424.5	9.7	16.8	2,	5,		1,859.6
0 0	29.BREBES	30.BAN AR 31.S	31.SEMARAN 3	32.YOCYAKA 33.SURABAY	3.SURABAY	34.MADIUN	35.: EMBER	TOTAL		
1. MERAK	0.8			31.2	4.4		0.1	58.9		
2. PANDEGLANG	0.1	0.0	0.1	0.1	0.0	0.0		187.4		
3. RANGKASBITUNG	0.0		0.0	0.3	0.1	0.1	0.1	9.7		
4~19.JABOTABEK	165.1	471.2	1,236.5	2,372.5	778.7	538.3		9,413.7		
20. PRUNAKARTA	0.2	15.4	1.1	0.9	0.1	0.1				:
21.CIKAMPEK	1.4	20.5	21.9	53.4	3.0	0.5	0.5	394.3		
22. PECADENBARU	31.3	2.3	14.6	14.6	0.8	0.0	 E.,	3 424.5	Line	
23. SJIKARIMI	0.0		0.0	0.0	0.0	0.0		9.7		
24 CLANJUR	0.0		0.0	1.0	0.2	0.0	0.0	16.8		
25.BANDUNG	0.0		0.0	370.1	115.8	52.1		3 2,634.3		
26. JATIBARANG	10.8		11.7	18.8	0.3	0.1	1	529.2		
27. JATIWANG!	0.0		0.0	0.0	0.0	0.0		3 2.8	الحجن	
28.CIREBON	1.0	10.7	9.5	54.0	35.3	17.0		3 1,859.6		
29.88.68.65	0.0		2.3	18.4	0.4	0.0	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 232.4	2.2	
30 BANJAR	0.5	0.0	0.0	237.2	116.8	51.4		3 1,324.4		
31 SEMARANG	2.3		0.0	216.0	180.4	0.0		g 1,699.7		
32. YOGYAKARTA	18.4	237.2	216.0	0.0	281.3	77.1	28	1 3,802.8		
33. SURABAYA	0.4		180.4	281.3	0.0	1,322.6	83.9	9 2 924.0		
34 MADIUN	0.0	51.4	0.0	77.1	1,322.6	0.0	11.7	1 2 329.7		
35. JEMBER	0.1		0.4	56.1	83.9	269.1	3,000	١. ١	(7 <51)	
TOTAL	232.4	1,324.4	1,699.7	3,802.8	2,924.0	2,329.7	443	28.336.6	**	

		#1.8								- 1														٠									
																						• •											•
pass.)	0.0	0.0	0 3 -	135.8	37.5	131.9	50.0	0.0	30.4	0	<u>ာ၊ မှ</u>	0.0	0.0	0.0	000		657.3																
1,000	0.0	0.0)) (0.0	0.0	0 00	000	0.0	0.0	0.0	000		0.0	0.0	0.0		<u>ф.</u> 0																
(Unit:	0.0	0.0	0.0	0.0	13.8	114.53	000	0.0	0 0	0.0	30.4	# C	0.0	0.0	0.0	000	178.2	TOTAL	0.2	80.2	7 012	1.025.4	1.550.1	967.0	307.4	7 C	2 8 C	C	657.5	62.3	131.0	138.5	553.1
PANDING 28	0.0	0.0	0 00	43.3	0.1	000	0.00	0.0	0.0	0.0	000	97.0	0.3	0.0	0.0	300	792.0	L	0.0	0.0	000		0.0	0.0	0.0	000		0.0	0.0	0.0	500	0.2	0.1
2] A CIANIID 7	0.0	0.0	5 & 5 g	0.0	0.0	0.00	0.0	198.0	0.0	0.0	000	0.0	0.0	0.0	0.0	0.0	473.5	34 MABIUM 13	~	0.0	0.0	200	0.0	0.0	0.0	000	500	0.0	0.0	0.0	000	51.2	511.9
: Loc	0.0	0.0	3 E	0.0	0.0	0.0	7.05	52.8	0.0	0.0	00))) (0.0	0.0	0.0	000	307.4	33. SURABAY 3		0.0	000	000	0.0	0.0	0.0	000	5 0	0.0	0.0	0.0	100	0.0	0.0
th] Mode		0.0	O 0	0.0	97.0	000		0.0	114.9	0.4	131.9	777	0.0	0.0	000	500	967.0	AKA	0.0	0.0	0.0	500	0.0	0.0	0.0	000	000	0.0	0.0		31.7	rio	0.1
TM] (0	0.0	3.9	20.6	0.0	97.0) C	0 1	13.88	0.0	37.5) 	ල 0	0.0	000	000	1,550,1	31. SEMARAN 32. YOGY	0.0	0.0	000	500	0	0.0	0	000		0	0.0	5.0	000	8, 26	40.9
E. (1992	3	59.6	9.0	0.0	29.8	0.0		43.2	0.0	0.0	435.8	5 - 0 C	0.0	0.0	0.0		1.025.4	30.84N JAR 3		0.0	0		0	0.0	0.0	0 6	0.0	0	0.0	0.0	o c	31.7	0.1
1001	0	0.0	300	516.8	1.371.7	800.6	70 X	400 5	1.7	0.0	i.	0	0.0	0.0	0.0		2,977.1	29. BREBES 3	tes	0.0	0.0		0.0	22.2	00	000	17.4	0.0	16.8	0.0) 0 0	0.0	0.0
senger OD	, ,	2. PANDEGLANG	JABOT ABEVI	WAKARTA	KAMPEK	22. PECADENBARU	(ABUT)	NDUNG	LIBARANG	FIWANGI	KEBON	LISES	31. SEMARANG	SYAKARTA	RABAYA	AREA AREA	TOTAL	6 0	. MERAK	DECLANG	3.RANCKASBITUNG	NAKARTA NAKARTA	KAMPEK	CADENBARU	KABUMI	AN JUR	TIRARANG	TIWANGI	28.CIREBON	E8ES	NJAK	GYAKARTA	RABAYA

) pass.)	140.1	29.0	0.0	5,376.5	685.7	143.1	285.8	20.2	2,668.4	1.631.3	(85.4	127.2	1,012.4	1,971.5	647.6	218.9	20.00	30:22	13,620.3										٠.										
	1,0(7.5	0.1	0.1	1,204.6	14.0	3.1	27.3	ಣ 9	673.3	1.8.7	26.2	0.1	1.460.8	22.8	102.7	0	2.0		4.4(0.0																				
	(Unit:	138.4	29.0	0.0	2,789.8	1.22.1	470.2	0.1	0.1	752.9	0.0	1 621 2	160.8	59.1	318.4	191.9	9.0	æ. O	0.00	0.000	FOTA	1.673.6	937.9	1,521.1	51,048.7	3,575.0	7,154.7	4,32	4 855 6	30,786.2	7,007.0	4,475.8	15.820.9	4,696.7	27,654.6	38,289.2	23.101.5	45,200.1	20,000.4	329,377.4
		25. BANDUNG 21	452.7	212.6	8.095.4	200 200 200 200 200 200 200 200 200 200	1.696.1	939.6	2,438.9	0.0	6.70	7 668 1	7	8.618.3	839.3	301.9	271.8	207.2	766.1	50.000.00	SE IEMBED	0.0	0.1	0.1	471.5	0.1	105.22	5 C		76.1	1 .	E - I	30.2	0.1	50.4	437.8	242.3	10,031 9		26,490.2
÷		24.C.IAN3UR 2	8.96	12.0	1,577.0	(2.0	126.5	73.2	0.0	2,438.9	0.1	200	0.0	357.2	0.1	7.5	45.3	0.0	0.0	4,655.0	٠		0.1	0.1	1,452.1	15.0	7	7 17	: - - -	207.2	0.8	7.5	68.0	3.4	218.9	497.6	3,547.0	10,773.3	0.00	25,833.4
	Mode: Bus	23. SUKABUM 2	238.1		3,024.5	17.3	12.2	0.0	73.2	939.6	0 6	285.3	0.1	307.7	15.1	30.2	0 [0	0 202	0.226.1	SO CHORDAN SA MANITIM	44.0	7.5		2,631.5	0	100		A 50	271.8	0.0	0.1	218.9	<u>د.</u>	151.0	10,606.7	2,435.8	0.0	0.01.0	43,256.1
] MC	22. PECADEN 2	0.1	0.0	856.1	803.8	0.0	12.2	126.5	1.696.1	4/0.2	1.03	0.0	61.0	193.2	121.3	7.1	0.0	0.0	4.521.3			ප 0	0.0	3,501.0	21.9	413.6	200 C 000	2 6	301.9	191.9	102.7	647.8	122.9	3,895.8	7,414.8	0.0	2,435.8	3,347.0	23.101.5
	[W1	21 C 1KAMPE 85 7	1.0	0.0	3.344.3	900	427.3	17.2	5.4	869.3	132.1	F85 3	3.0	452.4	180.2	413.6		4.	105.2	(1134:0	21 COMADAN SO VOCVANA	26.4	0.0	0.0	9.231.2	44.2	80.7	130.4	0.1	899.3	318.4	22.6	1,971.5	2,279.0	4,151.1	0.0	7,414.8	10,000	431.0	38,289.2
		20 PKUMAKA 52 0	50.1	0.0	905.1	0.0 406 7	803.8	0.0	72.7	855.3	152.1	. C	5.3	180.5	44.2	21.9	0	15.0	0.1	3.5(5.4	SO BANIAD	159.8	30.2	188.7	5.494.9	180.5	452.4	207.7	357.3	8,618.3	59.1	1.460.8	1.012.4	804.4	0.0		3,895.8	101.0	20.0	27,654.6
	OD Table	1	0.0	0.0	0.000	200.7	862.3	4.575.9	1,702.1	9.426.4	7,357.7	5 505 7	1.107.7	5,873.6	9.257.6	3.604.3	2,683.1	1,439.7	2.776	55,101,50	20 205000	•	0	0.0	1.093.1	15.3	5 C	5 -	0.0	71.4	160.8	0.1	127.2	0	804.4	2,279.0	5.77	~ 0	# -	4.696.7
	Passenger (1. MFRAK	2. PANDEGLANG	3. RANGKASBITUNG	4~19. IABOTABEK	21 CIXAMPEK	22. PECADENBARU	23. SUKABUMI	24. CLANJUR:	25. BANDUNG	20. IA! BAKANU	28 CIRERING	29. BREBES	30. BAN, 4R	- 31.SEMARANG	32. YOCYAKARTA	33. SURABAYA	S4. MADIUN	SS. LEMBER	TOTAL		+	2. PANDEGLANG	3. RANCKASBITUNG	4~19. JABOTABEK	20. PRUNAKARTA	21 CIKAMPEK	22. FEUADENDARO	24. CLAN IIR	25. BANDUNG	26. JATIBARANG	27. JATTUANGI	28.C1REBON	29. BREBES	30. BANJAR	31. SEMARANG	32. YUNYAKAKIA	SS. SUNABAYA	OF IEMOCO	TOTAL

	် (၁)	<u>হা</u> ব	ગ૦	ı=	N		खा	ica)	O]	्र	sju	গুল	ि	[ට]	r— ı	nje	يماد	10	কে	اندوا																			
	pass	S.C.I REBON		∞	426	0	r)	3	0	0)(20	0	,	21	20 11	¥, 1%	17	0	572													٠.			٠			
. (1,000	ATTUAN 28.	30	0	0.0	0.0	0	0	0	000))		0.0	0.0	000	500	3 C	0.0	0	0.0		٠		٠.															
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		S. IATIBAR	- 0	0	86	0.0		0.3	0.0	သင	⊃ c	c	m	10	200	0 6	rc	0.1	0	136.8	TOTAL	82	0	∞ [8, (%)	1.8	258.6	တ	0.00	138.5	0	572	167	1.263	1,409.8	3,537.6	2,834.	7.510.	21,854.
		BANDUNG 26	3 O	0.0	947.8	5	5.0	0.0	0	40))) (200	0.0	0.0	378-1	0.00	15.6	52.1	3.5	878.0	L	0.1	0.1	0	0 C	0.0	0.0	0.0)) ()	0.0	0.0	0 8.0	0.1	12.5	0.4	56.1	833 4 4	100	436.6
	8	13	50	0		5	0			20 6	3F12			C					0		35. IEMBER	m				1	ć										707	7	
	Exp	CLAN	50	0	o	0.0	0.0	0.0	9	S	ه اه		0	ō	5.1	5		0.0	o	16.8	34. HADIUM	2.	0.0	0	524.0	Ö	0.0	0.	0	96	Ö	17.0	0.0	51.4	0	77.	1,322.0	300	2.316.7
	Mode:	3. SUKABUM 24	30	0.0	5.5	0.0	0.0	0.0	0.0	- 0	500	20	0.0	0.0	0) c) C	0.0	0.0	9.7	RABAY 34	<u>.</u>	0	0	4.50	200	0.4	0.0	70	0 60	0	35.3	0.4	16.8	80.4	281.3	0.0	0.00	2,894.6
		애	510		2	0	8	0	:	5			000	N		36	0 61	0		8	1 33. SURABAY																·	3.67	2,8
	Without	PECADEN		0	237.5	0.0	0.0	0.0	0.0	0	0.0		(C)	~	انہ	2.C	ح	ö	0	258.	32. YOCYAKA	12	ဝ	0	2.17	14.1	7.	0.0	1.0	14.3	0.0	52	18.4	237.2	216.0	0	281	200	3.537.
,	LWĭt	KAMPE 22	50	0	69. G	8 0	0	0	0	၁ (5,7	# C	62	٥	7 0	- د ع	10	0.4	0.0	18.6			0.1	2 0	282	9	4.0	0.0	5 c	2 m	0	0.5	2.3	0.0	0.0	0.00	80°)))	409.8
6	(7	: 					20							_							31.SEMARAN																		1.4
	7667)	20. PRUMAKA	0.0	0	7.2	0.0	0.6	0	0.0		7,0		0.0	0.0	13.6	50) C	0.0	0.0	23.0	30. RAN 148	0	0.0		415.0	17.4	2.1	0.1	330	5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.0	10.7	0	0.0	0.0	237.2	116.2	20.4	1.263.
•	۵	1		0.0	0.0	7.2	69.6	37.5	ري ري	0	25.00	90	34.3	30.2	415.1	20.5 20.5 20.5	755 2	526.9	10.7	6.814.9	-	6	0.0	0	30.7	0.0	3.2	0.0	0.0	10.0	0.0	0.1	0.0	0.5	2.3	18.4	a (0.0	167.0
1	תם	1-19				·		ļ		ľ	35		ļ°i			5)	1/2	Ć)		9.9	29. BRFBFC																		
			2. PANDEGLANG	SBITUNC	BOTABEK	KARTA	PEX	ENBARU	5	ž)	7 C	NO INC.	Š	S	24	ANI	AVA	2	:4				2.PANDECLANG	SBITCHG	BUI ABEK	PFK	ENBARU	I.W.	¥	ARANG	ANGI	S	S	2	ANG	KARTA	AYA	و ح	ا
	Passenger	0	PARAR	RANCKA	~ 19. JA	O. PRUMA	1.CIKAM	2. PECAD	3. SUKAB	24 CLANJUR	S. BANDS	7 147 10	8.CIREB	9.BREBE	30.BAN JAR		2 CHRAP	34 - MAD I UN	5. EMBE	TOTAL		MERAK	PANOEC	RANCKA	20 501 11 ABUTAB	21 CIKAMPE	22. PECADENBARI	23.SUKABUM	24 CLANJUR	25. BANDONG 26. LAT I BARANG	27 ATTUANG	B. C.I REB	3. BREBE	D-BANJA	31.SEMARANG	32. YOCYAKART	33. SURABAYA	4.MAU L	TOTAL

 	pas:	S. C.I REB		O	0	5)	0.0	0	0	8		16.	0	ö	ا ا			88					:									:			٠.				٠.		
	1,000	ATTIGAN 25	000	0.0	0.0	000	ع د د	0.0	0.0	0 0	000	0 0	0	0.0	0.0	500)))		0.2										· · ·			.*					; ;			÷		
	(Unit:	JATIBAR 27.	0.0	0.0	0.0	0.0	200	0.0	0.0	0.0	000	3	16.6	0.0	0.0	000	0.0	O O	95.3	OFFAI	ורו אר ח	25.9	4.4	2,026.2	520.6	119.4	₩7.4	473.5	487.0	82	2 87 7 1	41.6	130.8	141.8	178.5	553.1	204. r	7 153 8	5.004			
		BANDUNG 26.	0.0	0.0	35.8	43.3	= e	52.8	198.0	0.0	000	500	0.0	97.0	0.0	0.0)))	000	487.0	:]	31	0.0	0.0	0.0	000	0.0	0.0	0.0	000	5 C	000	0.0	0.0	0.0	0.2	0.1	# C	3 C				:
•	Local	2	000	0.0	49.8	0.0	0.0	225.1	0.0	0.861	0.0		0.0	0.8	0.0	000	2000	0.0	473.5	NAME OF TAXABLE IN TAX	0.0	0.0	0.0	200	0.0	0.0	0.0	0.0	0.0	000	000	0:0	0.2	0.0	51.7	511.9	5 C	5.64.7	1.1			
		23. SUKABUM 24	000	0.0	29.5	0.0	0.0	0.0	225.1	52.8	0.0	000	0.0	0.0	0.0	000	200	0.0	307.4	C ALBABATA S	0.0 0.0 0.0 0.0 0.0	0.0	0.0	0.0	300	0.0	0.0	0 0	0.0	000	000	0.0	0.1	40.9	0.1	0.0	211.3	5E2	1.000			
	thout.]	22. PECADEN	⊃ 0.0																	ANDON GG	O. TUUTAN	0	0.	o s) 		0	C	0	0	o C	0	31.	ਲ	0	o i	, ,	178				
	2)	PRUMAKA 21. CIKAMPE	25.7 0.2	,	-														526.6 1,418.3		35 30		0.0															30.8			٠.	
,	Table	Ŕ	500													-			2,056.8	OVI NVO UC SUBSECTION	-!-	0.0	0.0	0.0	300	2.3	0.0	0.0	0.0	16.6	26.0	0.0	0.0	တ်.	0.0	0.0	500					
	Passenger OD	0 /1038	2. PANDEGLANG	. RANGKASBITUNG	~19. JABOTABEK	C KUWAKAKTA	DECANERA DI	3.SUKABUMI	1.CIANJUR	5. BANDUNG	O JAT I BARANG	CIREBON	3.8REBES	3.BANJAR	I.SEMARANG	C. YUGYAKAKIA	MAD III	EMBER	TAL	06 7	-	PANDEGLANG	RANGKASBITUNG	~19. ABUTABEK	CIKAMDEK CIKAMDEK	PECADENBARU	SUKABUMI	CIAMJUR	BANDUNC	JATIBARANG	CIREBON	. BREBES	. BANJAR	. SEMARANG	. YOCYAKARTA	SURABAVA	FRADION	TOTAL				
:	<u></u>		72	<u>ကျ</u>	*	7	<u> </u>	10	[2]		716		2	m	ကျင်		<u> গুলু</u>	ol _{ev})	2	[m]	<u> </u>	2/4	167	7	72	21/2	X F	4 K	i Ki	i M	<u></u>	63	<u>ক্ষা</u>	JE	₹F				
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	pass.)		200	0	3 K3	(X)	22.2	SIC SIC	3 K	31.6	2	ಾ ೧೯	য ব - ১	125	7.8	တ	ار مارچ	7.707.3																			
	од С	28.C.	2	0	435.9	ő	33	XI	2.86	1.6	32				9	2		17.70											٠								
	1,000	26.1AT1BAR 27.1AT1WAN 28.CIREBON	0.1	0.00	0	14.9	e.	27.3	96	179.2	0.0	765.2	A Cell	22.6	102.7	0.1	<u>-</u>	4.478.7																			
	(Unit:	- 1 - 1 - 1 - 1 - 1	ග	00	~ 	00	ರಾ			0	7	Fox o			2	හ	on c		الس	কৈন্ত	۱	200	الحال	গাচ	51	ाळा	ार इस्	ייוס	াকে	(ক)	ক্রাব	जार	राक्ट	ाट ज	कार	arn	
	E)	138	33	0.0	5.05	139.6	544	o c	755	0.0	179	- 631 - 631	202	324	196.2	0.0	o c	7,482.6	TOTAL	712	333	54,560	4,092.7	7,307	6.292.	4,855.	31.827.	4778	7 707	4,782.	27,715.	2 2 2 2 3 3 3	3.285	5,846.	85 85 85 85 86 86 86 85 86 86 86 86 86 86 86 86 86 86 86 86 86 86 8	33,600	
		20 P	2.7	⊕ C	2,12	02 02	19	900	000	755.1	3.3	च ५ छ -	α	S G	301.9	.8	7	12.	ER	in .		7.4	0.1	000	0:10	0	192	3 -	0 2	0.1	40.0	श्र	90.	3.7	000	5	
		UR 25. BANDUNG	46	213.4	2	8	1,60	S	4.67	75	1.9	2,668.4	8	8	æ	27	8	31,827	35. JEMBER			47							3		2	3 2	16.05	9,02	0 30	¥ 103	
			96.8	12.0	200	5.4	126.5	73.2	2 438 9	0.1	6.3	20.7	357.3	0	7.5	45.3		4,855.6	NOIG	∞ -	3	, 464.4	15.1		12		202	7	68.0	3.4	218.9	50.2	0.775.5	0.0	9,023.7	5.040	
	р ц	SUKABUM 24 CLAN		ਰਾਪ	n c	ন	2		1.	1		∞ -	- IC		7	F			Y 34 M	∞ u	n	F.	-1	מומ								· ·			o k	5	
				1,107.4	200ء 10	17.	12.	90	0.0	0	27.3	285.8	307	.5	30.7	0		6,292.	SURABA	7.8	÷c	2.656.8	0.1	1	0	45.	271	0	218.9	1.	151.0	2.435.8	0	10,775.	5 5	1000	
		20 20 20 20 20 20 20 20 20 20 20 20 20 2	0.1	0.0	303.84 803.84	5.2	0.0	22.2	200.3	9.4	3.00	200	2 :-	8.6	128.3	3.5	000	280	AKA 33	on c	200	6.1	22.8	200	2.0	7.5	6. V	26.0	7.8	2.9		-		7.0	() (d	7	
	[Without]	22. PEC		,	≆ ≿	51			200	Z		8		2	12			5.940.8	32 YOCV	12		3,696.1	2	312	3		0.00	2	64	.12	3,88	4	2,43	3,54	242.3	201.03 201.03	
	[Wit	20. PRUVAKA 21. C. KAMPE 22. PECADEN 23	4.4	100	406.7	0.0	515.2	17.2	830	139.6	7. 20.	936.0	455	196	452.8	5.5	F	7,562.3	MARAN	30.7 121.9	5 C	482.6	45.3	2 2 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3	15.1	0:1	899.0	22.0	971.5	279.0	151.1	2.4 2.4 2.4 2.4	606.7	497.6	437.8	0,0,0	
	32)) [2] 작년	\ 	0				4					1.						31.5	∞ ς	7 1	1	1	1.	ŧ	ĿΙ	- 1	ŀ	1 1	1	- 1	1	1 1	1 1	- I	1	
-	(1992)	PRUVAK 53	84	0.0	<u> </u>	408	803.8	ع ات	255	159	o	435	183	45	22.8	0	2	4,092.7	0 29. BREBES 30. BANJAR 3	55	38	5,551.	183	<u> </u>	307	357.	8,618	1.460	1,012	8	0.0	9 20 20 20 20 20 20 20 20 20 20 20 20 20	121	218.	77 77 0	1 20.	
	10	8	0.0	0.0	5 M	5.2	4.6	9.0	21.2	ਰ 8	5.2	200	0	300	8.0	7.2		11	ES 30.	77		27.5	2.5	2 4		0.0	- c	7.7	7.2	0.0	40	- 1	1 1	-	.1	ŀ	
		-1		0.0	1.07	3,43	1.48	4.57	10.48	3,32	1.21	9 -	. v	9.5	3,81	2,71	1,472.4	58.953.7	9. BREB			1,12		0				9	12		86	122.9	Ιi		100	2)	
	er OD	6	SN	TUNG	RTA	×	BARU	_	1	ANG	5	1	\dagger		RTA	Ą	+	\prod	0 2	ږ	NO.	TABEK	RTA	1 10 10			1	200			1	7 P.L.	-		+	1	
	assenger	XVG	NDECL A	NGKASB	SI WAKA	KAMPE	ECADEN	SKABCT.	ANDING	ATIBAR	ATIVAN	REBON	AN IAR	FMARAN	OGYAKA	URABAY,	S C C	TOTAL		RAK	NOFELA	9. JABO	RUMAKA	FOADFR	SA BEL	IANJUR	ATIBAB	AT LUAN	REBON	REBES	CANJAR	31. SETAKANG 32. VOGVAKARTA	URABAY.	ADION	35. JOHBER	2	
	Pas	0	2. PA	3.8	} \$	21.5	22.	22.5		8	27.	۵ ا	S	3.8	32.7	33.5	8 %	TOT	0	₩.	2.2	4~1	20.6	31.5	23.5	24.0	22	35	3.C	29.B	86	20 C	33.S	8	35	1	

Appendix 4-9-2 Link Traffic of Railway Passengers

(One way: Per Year; Unit: 1,000 pass.)

	4.				18 garage 1	la de la compansión de la compansión de la compansión de la compansión de la compansión de la compansión de la		(One way	: Per Year	; Unit: 1,	ooo pass.
ſ	Ļ				199)2			19	97	
-	Link	Track (Capacity	Traffic		, 	c Volume	Traffic	Demand	Traffi	c Volume
	1						1	WITHOUT	WITH	WITHOUT	WITH
1	Ņ O	TUOHTIW	WITH	WITHOUT	WLTR	TUOHTIW	WITH		<u> </u>		
	1	3551.5	3551.5	18.3	57.1	18.3	57.1	23.4 35.5	72.5	20.0	61.9
- }	. 5	1588.8	1588 • 8	26.3	247.8 319.0	26.3 57.9	247.8	75.5	424.1	35.4 70.8	315.6
	3	5233.8	5233.8	57.9 50.0	391.3	50.0	319.0 391.3	64.7	508.3	58.0	394.6 473.5
- [5	8411-4 8411-4	8411.4 8411.4	54.6	559.6	54.6	559.6	70.6	725.4	63.9	675.9
	. 6	8037.6	8037.6	74.7	550.2	74.7	550.2	97.3	722.3	92.1	672.9
	7	22430.4	22430.4	0	0	-0	Ď	.0	.0	.0	-0
	S	18878.9	18878.9	65.8	696.2	65.8	696.2	85.0	901.7	78.1	839.6
	ç	16075.1	16075-1	0	0	1.6	1.6	.0	.0	2.1	2.1
	10	10841-4	10841.4	0		24.0		29.5	29.5	29.5	29.5
	11	12897.5	12897.5	24.0 2491.0	24.0 2541.8	2491.0	24.0 2541.8	3154.9	3219.1	2761.1	2777.3
	12 13	12336.7	16075.1	144.0	1430 6	144.0	1430.6	186.8	1861-6	174.2	1727.8
	14	21495.8	21495.8	2866.9	4812.5	2866.9	4812.5	3642.3	6172.5	3231.4	5546.9
	15	5233.8	5233.8	4.4	28.2	6.0	29.8	5.6	36.4	7.6	35.9
	16	18878.9	18878.9	1610.1	1751.2	1610.1	1751.2	2007.4	2180-9	1922.2	2107.4
	17	22430.4	22430.4	220.9	343.5	220.9	343.5	285.0	443.3	255.8	405.2
ļ	18	14579-8	14579.8	216.5	315.3	216.5 1827.7	315.3	279.4 2288.1	406.9	250.2 2173.9	371.4
		22430.4 11962.9	22430.4 11962.9	1827.7 4214.9	2091.5 4725.6	4214.9	2091.5 4725.6	5234.3	2619.7 5869.3	4825.2	2508.4 5481.9
	20 21	22430.4	22430.4	7780.2	10585.2	7780.2	10585.2	9773.2	13388.3	8898.3	12279 3
	25	22430.4	22430.4	8160.9	11383.5	8160.9	11383.5	10265.1	14430.6	9390-1	13299.4
	23	22430.4	22430.4	62.4	482.3	62.4	482.3	79.2	627-2	78.6	600.2
- 1	24	7663.7	7663.7	55.3	69.6	55.3	69.6	70.0	88.6	69.9	87.2
	2.5	3364.6	3364.6	89.7	89.7	89.7 336.9	89.7	114.9	114.9	114.9	114.9
	36	3738.4 3925.3	3738.4 3925.3	336.9 269.2	336.9 269.2	269.2	336.9 269.2	426.8	426.8 340.7	426.8	426.8 340.4
	27 28	15327.4	22430.4	8782.4	12555.7	8782.4	12555.7	340.6 11067.3	15948.8	340.5 10192.3	14811.0
	29	6168.4	7103.0		3605.6	1968.9	3605.9	2501.6	4615.4	2501.5	4574.3
	30	6168.4	7103.0	1536.2	2659.0	1536.2	2659.0	1948-1	3406.3	1948.0	3405.8
- 1	31	6729.1	10467.5	5474.7	8913.7	5474.7	8913.7	6855.4	11273.9	5974.0	10045.2
	3,2	5794.5	10467.5	5242.0	8273.9	5242.0	8273.9	6560.0	10443.2	5676.1	9305.3
	33	7009.5	10467.5	5176.4	7757.1	5176.4	7757.1	6478.8	9782.7	5614.9	8686.8
	34	3551.5 21495.8	3551.5	1804.7	3.2 2927.1	1804.7	3.2 2927.6	3 200 0	4.1 3746.2	3397.0	3.9
	35 36	3644.9	22430.4 3644.9	1472.7	1534.0	1472.7	1534.0	2288.0 1864.7	1942.6	2287.9 1831.6	3745.6
	37	2990.7	2990.7	1006.2	1006.2	1006.2	1006.2	1275.1	1275.1	1214.6	1841.6
	3 8	3551.5	3551.5	2541.7	2967.3	2541.7	2967.3	3166.8	3704.1	2813.4	3456.3
	39	5233.8	5233.8	2293.5	2558.8	2293.5	2558.8	2890.9	3229.1	2442.5	2568.8
	40	3738-4	3738.4	2388.3	2727-6	2388.3	2727.6	2973.8	3401.9	2639.1	3165.8
- 1	41	4673.0	4673.0	19.1	19.1	19.1	19.1	24.2	24.2	23.1	20.8
	4 2 4 3	4859.9 3644.9	4859.9 3644.9	2312.6	2577.9	2312.6	2577.9	2915.1 2949.8	3253.3	2465.6	2589.5
	44	3644.9	3644.9	2369-4 3290-8	2708.7 3556.2	3290.8	2708.7 3556.2	4154.8	3377.9 4493.0	2616-3	3145.2
	4.5	2990.7	2990.7	855.9	868.9	855.9	868.9	1083.9	1099.9	3644.9 1005.7	3644 9 1051 0
	46	2897.3	2897.3	1026.6	1062.7	1026.6	1062.7	1278.8	1323.8	1167.5	1252.5
	47	3738.4	3738.4	310.8	310.8	310.8	310.8	393.9	393.9	393.9	393.9
	3 -	3551.5	3551-5	545.1	558.1	545.1	558.1	690.0	706.0	611.9	657-1
	49	5420.7	5420.7	818.7	818.7	818-7	818.7	690.0	1037.5	1016.0	972.0
	50 51	3925.3		545.1 1363.8	558.1 1376.7	545.1 1363.8	558.1	1727.5	706.0	611.9	657.1
	52	3738.4	3738.4	1303.0	13.0.7	0	1376.7		1743.5	1627.9	1629.1
	53	2803.8		1026.6	1062.7	1026.6	1062-7	1278.8	1323.8	.0 1167.5	1252.5
- 1	54	4486.1		2690.2	2690 2	2690.2	2690.2	3409.2	3409.2	3394.1	3363.1
	5.5	6448.7	6448.7	2690.2	5690.2	2690.2	2690.2	3409.2	3409.2	3394.1	3363.1
	56	4112.2		0	0	.0	0	-0	.0	.0	0
	57	2803.8	2803.8		0	.0 2348.5	0	.0 2976.1	.0	.0	.0
	5 S 5 9.	5794.5 2803.8		2348.5 341.8	2348.5 341.8	341.8	2348.5	433.1	2976.1	2961.9	2932.9
	60 9 y	7009.5	7009.5	95.4		95.4	341.8	120.6	433.1 128.9	432.2	430-2
	o 1	8411.4	8411.4	437.2	443.8	437.2	102.0 443.8		562.1	119.0 551.2	127.4
- 14	62	5233.8		0	0	. 0	.0	0	.0	.0	557.6
-14	63	3738.4	3738.4	437.2	443.8	437.2	443.8	553.7	562.1	551.2	557.6
i								I	L		

(One way: Per Year; Unit: 1,000 pass.) 2002 2007 Track Capacity Traffic Demand Traffic Volume. Traffic Demand Traffic Volume Ņ WITHOUT WITH . WITHOUT WITH TUOHTIW WITH WITHOUT WITH WITHOUT WITH 90.4 416.4 3551.5 1588.8 29.1 3551.5 1588.8 1 19.5 36.1 55.0 112.2 60.9 18.9 59.4 44.3 2 44.0 517.2 357.0 339.8 50.6 94.1 529.1 5233.8 3 5233.8 80.5 419.6 116.9 657.1 87.7 436.7 83.0 659.8 4 8411.4 8411.4 63.3 532.9 797.3 101.1 64.5 546.6 90.6 938.1 1188.4 5 8411.4 8411.4 70.8 747.1 792.9 122.0 105.6 911.4 150.8 1121.7 8037.6 8037.6 715.0 115.7 731.2 . 0 .0 .0 ٠.0 . 0 22430.4 22430.4 108.1 1448.5 1151.1 18878.9 86.6 908.3 133.1 92.0 18878.9 -0 . .0 2.7 16075.1 •0 . 0 16075.1 2.7 3.2 3.3 10 10 10841.4 10841.4 . 0 - 0 . 0 .0 - 0 ٠0 35.7 43.3 43.4 12897.5 35.7 2717.5 35.7 43.3 12897.5 16075.1 43.4 3804.8 3882.3 4722.9 4628.7 12 2675.3 2698.4 2737.0 2348.5 7609.7 235.4 2917.2 13 12336.7 196.4 290.4 12336.7 1834.3 212.1 1891.0 4406.7 5365.9 9317.0 14 21495.8 3265.9 5761.4 3277.7 5851.1 54.7 6.9 44.8 5233.8 8.9 8.5 3005.4 10.2 36.8 15 5233.8 36.6 2216.7 2452.6 2661.3 3259.0 18878.9 2608.5 16 2391.2 2441.0 18878.9 566.2 443.5 365.0 276.0 17 282.4 22430.4 22430-4 422.1 688.3 416.0 358.1 521.5 269.8 18 14579.8 14579.8 388.3 633.5 275.4 382-4 2487.4 3442.5 2812.3 3222.2 2807.9 3940.8 2716.9 3018-0 19 22430.4 22430.4 7150.3 5225.2 5839.6 7784.6 8726.6 5521.4 9821.9 6090.6 20 11962.9 11962.9 11884,1 9433.5 14505.6 22430.4 16408.4 12949.8 20066.3 13363-0 22430.4 17743.1 12507.7 10056.0 14189.9 15285.6 10543.4 22430.4 21746.3 14769-7 22430.4 22430.4 95.9 99.2 818.2 121.2 994.0 23 111.8 737.7 698.1 87.2 87.1 7663.7 3364.6 110.1 105.0 106.7 136.5 179.8 104.5 123.8 7663.7 3364.6 3738.4 179.8 179.8 25 142.3 142.3 179.8 142.4 142.4 662.3 531.8 531.8 531.8 662.3 662.3 3738.4 3925.3 531.8 26 425.0 424.7 424.6 528.3 528.3 527.6 425.0 3925.3 16934.2 13536.7 19703.0 11084.9 16120.5 16539.3 11705.0 28 15327.4 22430.4 24123.6 7103.0 7103.0 3096.7 5789.3 3096.2 5615.7 3789.4 7092.5 3518.7 6362.6 6168.4 2404.9 5214.3 2726.6 4857.1 4276.9 2404.4 2930.3 30 4275<u>.0</u> 6168.4 13829.6 10092.1 8295.8 7933.8 16931.7 5825.4 9887.8 5708.3 6729.1 10467.5 5494.8 9220.7 9229.1 15627.8 5343.0 10467.5 11952.6 9535.9 7009.5 7836.2 5417.9 8593.0 14608.1 5243.9 8568.1 10467.5 5.0 4.0 4 - 1 3551.5 6.2 - 3 4701.0 2400.2 4698.8 3457.4 5741.4 5383-9 21495.8 2829.0 2828.4 22430.4 2305.3 2846.8 3644.9 2990.7 2200.0 2563.5 1553.7 2601-6 3644.9 2990.7 2224.4 2962.6 1591.0 1976.1 1271.2 1424-6 1591.2 37 1976.1 4664.2 3831.8 4490.6 3471.7 5470.6 3502.0 3551.5 2828.7 7.6485 3551-5 3498.3 4259.7 3914.5 2262.7 2393.6 39 5233.8 5233.8 4769.0 2113.0 2246.9 3594.1 2648.9 4118.0 30.2 4374.3 3738.4 3156.0 5014.3 37.5 2664.0 3158.1 28.3 3738.4 30.8 30.2 37.5 4673.0 4673.0 24.3 3944.7 2417.8 3132.0 4806.5 2289:4 2143.8 3528.5 2275.2 42 4859.9 4859.9 4297.2 2622.5 2633.6 3130.2 43 3644.9 4088-0 4977-1 3564.2 4337.1 3644.9 6727.8 5491.7 3644.9 3644.9 3644.9 44 3644.9 5075.6 3644.9 6218.5 1647.7 1225.5 1333.5 1259.7 1343.8 1104.1 45 2990.7 1324.4 1143.1 1624.2 2990.7 46 1240.8 1609.1 1967.1 1403.5 2897.3 1554.2 1317.5 2897.3 491.5 491.5 610.4 610.4 47 48 610-4 610 4 3738.4 3738.4 491.5 832.9 852.2 1013.8 1037.3 612.6 651.6 649.3 3551.5 3551.5 615.0 1294.7 1294.7 1226.5 1181.1 1607.8 1607.8 1319.5 1276 - 6 49 5420.7 5420.7 832.9 852.2 612.6 1073.3 649.3 50 651.6 615.0 3364.6 3364.6 2127.6 2146.9 2621.6 2645.1 1839.1 3925.3 3738.4 1832.7 1934.5 3925.3 .0 • 0 -0 .0 -0 . 0 -0 3738.4 1609.1 1900.1 1967.1 1554.2 1317.5 1403.5 1240.8 1333.5 53 2803.8 2803.8 4254.5 4254.5 4206.4 5283.4 5283.4 4409.3 4380.5 4174.4 4486-1 4486.1 4254.5 4206-4 5283.4 4380,5 4254.5 5283.4 6448.7 6448.7 4174.4 - o -0 .0 .0 .0 56 57 4112.2 2803.8 4112.2 . 0 - 0 2803.8 .0 -0 .0 _0 4612.1 5794.5 2803.8 3714.0 3669.0 3639.0 4612.1 3844.2 3817.3 5794.5 3714.0 2803.8 540.5 540.5 537.4 535.4 671.2 671.2 565.0 563.2 177.9 742.9 198.3 7009.5 8411.4 149.9 160.2 700.7 185.8 60 7009.5 8411.4 145.6 153.8 <u> 186.0</u> 690.4 61 689.2 749.2 683.0 869.6 62 5233.8 -0 700.7 - 0 ٠0 _ N - 0 -0 690.4 857.0 869.6 689.2 683.0 742.9

Appendix 4-9-3 Freight OD Table (1992)

٠	Freight OD	Table	(1992)	[With]	Mode	Railway	[AL1	Commodities	riesl	(Unit:	1,000	tor
	0 0	1 5		21. CHKAMPRI 99.	PECADEN 23. SI	_	IN FIRE 25.	RANDLING 26. 1A	TIBAR 2	7 ATTUAN 2	8.CIREBON	
	1. MERAK	0.0		• 5	i	0	3 :		0.0	4	0.0	
	2. PANDEGLANG	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.1	
	3. RANGKASBI TUNG	0.0	0.0	ე.ი	0.0	0.0	0.0	0.0	ပ ()	0.0	0.0	
•	4~19.14BUT4BER	0.0	S	0.0	0.2	10.1	0.0	9.0	2.0	0.0	114.7	
	20. PRUMAKARTA	3.6	0.0	0.0	56.8	0.0	0.0	6.1	0.0	0.0	84.63	
	21.CIKAMPEK	2.6	0	0.0	58.0	0.0	0.0	55 1	21.0	0.0	114.8	
	22.PECADENBAR	3.9		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	23.SUKARIMI	0. I	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	24 CLAN LUR	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1
	25. BANDRING	22.D		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	26.JAT I BARANG	5.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	
	27. JATHUANGI	2.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	O C	
	28. CIREBON	43.7	0.0	0.0	0.0	0.0	0.0	0.0	13.6	0.0	0.0	
	29. BREBES	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	
	30.84N IAR	13.7	-	1.4	0.0	0.2	0.0	12 G	0.3	0.0	5.0	
	31. SEMARANG	45.3	-	6.0	0.0	0.0	0.0	1 1	0.0	0.0	0.0	
	32. YOGYAKARTA	20.4	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0	0.0	
	33.SURABAYA	241.2	ර ර	ເນ. ⊗	7.1	0.0	0.0	12.9	11.8	0.0	15.4	į
	34 . MAD I C.N	13.3	0.0	0.0	0.0	হ ০	0.0	7.0	0.0	0.0	0.0	
	35. IEMBER	8.8	0.0	0.0	0.0	0.0	0.0	6.9	0.0	0.0	0	÷
	TOTAL	431.4	57.2	10.8	122.1	10.8	0.1	110.8	99.3	0.0	336.5	
			1									: - \$\langle_{\pi}
	0	29.BREBES	30.84N.14R	31.SEMARAN 32.	32. YOCYAKA 33.S	33. SURABAY 34. MADIUM	5	EMBER TOTAL	131			
	1.MERAK	0.0		0.2	0.0	0.5	0.0	0 1	1.4	4		
	2. PANDEGLANG	0.0		0.0	0.0	0.0	0.0	0.0	-			, .
	3. RANGKASBITUNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
	4~19. JABOTABEK	0.0	6.9	114.9	128.8	313.7	<u>ج</u>	2.4	768-7			
	20. PRUMAKARTA	0.0		0.0	0.0	0.0	0.0	0.0	146.9			
	21 CIKAMPEK	0.0		1.7	0.0	0.0	0.0	0.0	354.7			1
	22. PEGADENBARU	0.0		0.0	0.0	0.0	0.0	0.0	4.6	٠.		
	23. SUKABUHI	0.0		0.1	0.0	0.0	0.0	0.0	0			
	24 CLAN IUR	0.0		0.0	0.0	0.0	0.0	0.0	0.1			
	25. BANDUNG	0.0		0.2	0.0	0 0	0.0	0.0	22.8			
	26. IATIBARANG	0.0		0.2	0.0	00	7	0	2			
	27 IATTUANGI	0.0	00	0.0	0.0	0.0	0.0	0.0	5.8			
	28 CIREBUN	0.0	0.0	0.0	0.3	3.3	0.0	0.0	89	4		
	29. BREBES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		17	. '
	30. BAN JAR	42.2	0.0	155.9	419.0	46.0	4 ت	0.0	702.4			
	31.SEMARANG	0.0	es. O	0.0	0.0	49.7	0.0	0.2	97.5			
	32.YOGYAKARTA	0.0	0.0	0.2	0.0	9.02	0.0	0.0	93.3			
	33. SURABAYA	3.0	6.96	77.7	76.3	0.0	911.8	475.0	.937.8			1
	34 MADIUN	0.0		æ	2.3	₽.7	0.0	0.6	34.51			ž .
	35. JEMBER	0.0	0.3	0.5	0.0	25.8	0.2	0.0	38.8			
	TOTAL	45.2	-	353.2	626.7	518.7	929.2	478.3	3.4 8			

Freight OD Table (1992) [Without] Mode: Railwey [All Commodities] (Unit: 1.1894) 1.1894 20.788484 21.71848 22.788484 21.71848 22.788484 21.71848 22.788484 21.71848 22.788484 21.71848 22.788484 21.71848 22.788484 21.71848 22.78848 21.71848 22.78848		1,000	0 0	0 0	0	0	0	200	500	300	000	0	0	0	0	2.0	0	2 2	0 c	5 0	135																			:	
Table (1992) [Without] Mode: Railway [All 1.] Table (1992) [Without] Mode: Railway [All 1.] Mode: Railway [All		(Unit:	0.0	0.0	0.0	0.0	5 C	500	500	000	0.0	0.0	0.0	0.0	0.0	0.0	00	50	300	000	0.0							٠		•											
Table (1992) [Without] Mode: Railway [All 1-15] 20.88WANA 21.CHANDS 22.EGGDBY 23.SUKABN 24.CHANDS 22.EGGDBY 23.SUKABN 24.CHANDS 22.EGGDBY 23.SUKABN 24.CHANDS 22.EGGDBY 23.SUKABN 24.CHANDS 25.88WAN 26.00 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0		odities	0.0	ი	0.0	2.6) - - -	50	500	5,0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	200	200		85.8		10131	Σ C	500	D 000	61.1	295.0	85 27.	0.1	0.1	47.4		0.0	200	200	2010	76.4	1.853.6	28.6	36.1
Table (1992) [Without] Mode: Railwey 1-15 20.PRUMAR 21.CIKAMPE 22.PEGADEN 23.SUKABEN 24.CIANUM 0.0		1.1 848		0.0	0.0	4.2	0.0	1.60	200	500	0.0	0.0	0.0	0.0	0.0	12.6	0	7 7 6	2.7	0	102.1		1	5 C	500	0	0.0	0.0	0.0	0.0	0.0	0.0	0	00	3 c) C	200	0.0	475.0	0.6	0.0
Table (1992) [Without] Mode: R: 1-15 20.RWARA 21.CIRWMF 22.PEGADEN 23.SURABUM 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.		<u> </u>	0	0.0	0.0	0	0.0	200	500) 	0	0.0	0.0	0.0	0.0	0.0	0.0	500	500	500	0.1	!	−∤ર	000)))	0 -	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	000) IZ	0.0	0.0	911.8	0.0	0.2
Table (1992) [Without] Miles (1992) [Without]		A A	0 0	0 0	000	æ (000	000	000	500	0.0	0.0	0.0	0.0	0.0	0.3	000	50	0.0	9 0	000			# C	000	124 3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	200	78.0	16.3	70.8	0.0	7.4	25.8
Table (1992) [With 100 or of o		FCAD	0.0	0.0	0.0	0.0	28.0	000	500	000	0	0.0	0.0	0.0	0.0	0.0	000	0.0	- 0	500	65.1		- 1		000	5 6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	000	200	0.017	0.0	0.0	76.3	2.3	0.0
Table (1992) 1-19 20.78(UAKA 20.				0.0	0.0	0.0) (0.0	5 0		0.0	0.0	0.0	0.0	0.0	1.4	000	5 0 5 0	000		0.00			500	500	, .	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		155.0	0.0	0.2	77.77	1.6	0.5
1	.:	1992)	0.0			1		.] [ļ	1												0	YK.	- 1				1	ıı		- 1	1									
Freight OD	· · · · · · · · · · · · · · · · · · ·	able	0.0	0.0	0.0	0.0	77	200	200		20.0	12:	0.0	33.0	0.0	13.1	3 6	0.0	7. (61	C	257.3	200000	S. BNEBES) C	0.0	0.0	0.0	0.0	0.0	0.0	0.0		500	62.0	0.0	0.0	3.0	0.0	0.0
### ### ### ### #####################		ght OD	.K	PECLANG	KASBITUNG	ABUTABER	MARAKIA	ATIPEK	ADI MI	N IUR	DOUG	1BARANC	CANGI	EBUN	BES	AR.	NAKANC Name	A HANAK M	Acaya	RFR			7	ALC: ALC:	KACR TING	1AROTARFK	MAKARTA	CAMPEK	ADENBARU	(ABUM)	IN IUR	DCNC		-		+		+-	\vdash	—ŀ	-+
		Fre:	- A	2. PAND	3.83.10	4~19.	3.5	21.018	1.77	24.014	25. BAN	26.147	27	28 C.I.R	20 BRE	30.878	31.35	32,100	20 S	34			1000	DANIE	S PAND	4~10	20. PRU	21.CIK	22.PEG	23. SUK	23.CE	25.8AN	26.11	200	20 00	30 RAN	31.55	32.400	33.SUR	34 . MAD	35.15

Appendix 4-9-4 Link Traffic of Railway Freights

(Per Year; Unit: 1,000 tons) 1997 West Bound East Bound Track Capacity Traffic Demand Traffic Volume Traffic Volume Traffic Demand WITHOUT N O WITHOUT WITH WITHOUT WITH WITHOUT TUOHTIW. WITH 7.3 6.8 7.3 1 5 6.8 346.8 346.8 1.0 1.7 1.0 2.0 3.5 155.1 511.0 5.0 **,** 0 155.1 8 6 8.0 8.8 8.0 3 511.0 3.8 1.0 1.0 . ŏ • 9 4 6 .0 4.6 821.3 821.3 .0 1.8 .0 70.2 51.3 821.3 784.8 .0 51.3 23.6 821.3 106.7 5 ...0 8.5 23.6 8.5 784.8 35.7 6 1.0 .0 7.2 .0 ..0 2190.0 1843.3 7.2 . 0 2190.0 7.1 .0 79.0 79.0 115.1 .0 1843.3 7.4 7.4 7.2 .0 7.1 7.2 1569.5 1569.5 .0 .0 •0 __o __0 .0 . 0 . 0 .0 10 1058.5 1058.5 . 0 •0 .0 .0 - 0 1259.3 . n .0 .0 .0 ิก .0 . 0 -0 .0 1569.5 1569.5 8.7 10.0 332.9 234.0 127.8 8.7 127.8 1204.5 10.0 13 1204.5 318.3 170.2 1.5 453.6 13.6 170.2 13.6 114 2098.8 1.5 10.1 30.7 20.1 22.5 22.5 178.7 511.0 1843.3 10.1 115 511.0 101.8 178.7 104.2 135.1 168.9 1843.3 67.2 64.2 17 258.6 209.9 83.0 2190-0 67.2 83.0 2190.0 148.8 148.2 197.0 67.7 64.2 155.9 253.1 235.1 67.7 1.5 1423-5 2190-0 155.3 236.2 261.8 393.7 311-7 236.2 261.8 2190.0 251.4 20 1168.0 21 2190.0 312.9 662.9 700.7 395.5 236.2 271.9 281.2 263.4 253.1 257.3 257.4 236.2 263,4 2190.0 896.5 255.5 255.6 479.3 271.9 479.3 2190.0 515.0 22 953.4 515 0 281.2 2190.0 2190.0 .3 12.9 65.5 23 33.6 6.68 . 3 33.6 12.9 748.3 197.1 11-1 63.2 24 11.1 13.7 13.7 748.3 49.8 8.8 2.0 25 197,1 11,2 11.2 8.8 2.0 219.0 230.0 •3 2.2 2.2 5.6 . 2 2.2 219.0 2.2 2.2 2.2 2.7 259.3 2.2 28 29 958.0 703.7 301.4 536.0 1496.5 2190.0 301.4 536_0 257.6 199.0 176.2 191.0 191.0 42.1 42.1 602.3 693.5 176.2 123.5 166.8 123.5 459.5 40.1 30 361.4 416.1 1022.0 1022.0 139.6 139.6 40.1 48.1 1297.2 457.7 269.2 955.0 499.9 657.0 269.2 499.9 397.5 318.9 565.8 1174.0 857.9 271.4 501.9 271.4 395.8 317.1 501.9 33 684.4 346.8 1099.8 800.5 282.3 527.5 282.3 1022-0 527.5 .0 42.4 346.8 0 - 0 - 0 22.6 .0 22.6 139.8 2098.8 213.5 123.7 123.7 92.7 139.8 50.3 2190.0 42.4 50:2 97.9 763.8 66.9 213.5 36 92.7 66.1 52.6 53.4 292.0 346.8 581.2 194.3 37 38 763.8 510.3 152.4 152.4 65.0 292.0 65.0 568-4 194.3 254.4 346.8 448.9 428.0 254.4 428.0 39 306.6 5.5 194.3 179.6 10.2 302.7 306.6 74.5 29.5 3.6 10.2 29.5 40 365.0 41 456.3 568.3 365.0 448.9 476.3 194.3 302.7 476.3 74.9 5.9 222.6 222.6 222.6 9.55 4.0 42 284.7 150.0 232.9 284.7 232.9 252.1 252.1 745.9 714.5 355.9 43 431.5 175.2 355.9 371.8 371.8 626.4 258.0 431.5 258.0 355.9 175.2 355.9 540.3 155.9 355.8 355.8 68.6 87.8 45 17.4 1.1 175.2 14.1 10.2 18.4 1.1 10.2 18.4 443.1 46 282.9 447.5 282.9 219.0 222.0 443.1 222.0 364.1 326.2 326.2 47 219.0 . 0 .0 14.1 .0 48 208.1 9.9 240.3 208.1 1.1 18,1 9.9 18.1 529.3 135.7 49 529.3 135.7 108.7 240.3 97.7 116.2 97.7 197.1 1.1 136.9 17.4 197.1 9.9 9.9 107.7 14 1 18-1 .1.1 18.1 383.3 153.2 122.8 383.3 250.3 258.5 115.9 52 219.0 219.0 273.8 . С 364.1 326.2 .0 273.8 222.0 447.5 443.1 54 438.0 139,1 139.1 438.0 114-7 1175.1 121.5 1175.1 438.0 438.0 -55 629.6 139.1 139.1 114.7 1175.1 1175:1 629.6 121.5 438.0 438.0 .0 -0 56 401.5 401.5 - 0 .0 .0 :0 5.7 273.8 .0 273.8 565.8 .0 1166.9 . 0 .0 565.8 273.8 5 E 5 G 133.5 138.5 114.0 120.9 1166.9 434.9 434.9 273.8 - 6 8.1 8.1 3.0 3.0 509.9 509.2 509.9 61 821.3 έĘ 509.2 33.0 684,4 32.0 33.0 510.5 509.9 509.9 821.3 40.2 41.2 35.1 36.1 62 511.0 365.0 511.0 . 0 .0 . 0 -0 509.9 510.5 509.9 365.0 509.9 40.2 41.2 36.1

		•
	O	

i n k	2002		\$ 15 min	East	Bound			West	Bound	
	Track	Capacity	Traffic	Demand	Traffic	Volume	Traffic	Demand	Traffic	Volume
Ņ	WITHOUT	WITH	WITHOUT	WITH	WITHOUT	WITH	WITHOUT	WITH	WITHOUT	WITH
1	346.8	346.8	1.2	2.1	1.2	1.6	8.1	8.7	8.1	8.7
2	155.1	155.1 511.0	.0	2.5 4.6	1.2	2.4	2 . 2	.2	0.2	10.0
3	511.0 821.3	821.3	1.2 .0	2.2	.01	4 1	9.2 0	10.0 5.6	0 8 S	10.0 5.6
	821.3	821.3	io	130.4	-0	69.7	.0	62.6	.0	62.6
6	784 - 8	784.8	1.2	43.7	1.2	25.2	10.0	28.4	10.0	28.4
7	2190.0 1843.3	1843.3	7.1 7.5	7.3 207.3	7.1 7.5	7.3 114.3	.0	.0	•0	04.5
8	1569.5	1569.5	.0	.01.3	.0	114.3	- 0 7 - 1	96.5 7.2	7.1	96.5 7.2
10	1058.5	1058.5	.0	.0	.0	.0	0	0	0	.0
11	1259.3	1259.3	.0	.0	.0	.0	-0	.0	0	.0
13	1569.5	1569.5	.0 10.6	406.0	-0 10.6	.0 235 8	10.2	.0	10.2	-0 155-8
14	2098.8	2098.8	1.8	555.5	1.8	320.5	16.3	155.8 207.6	16.3	207.6
15	511.0	511.0	.0	37.6	.0	19.9	10.7	25.9	10.7	25.9
16	1843.3	1843-3	124.3	162.2	122.5	101.2	205 - 4	217.4	205.4	217.4
17	2190.0	2190.0	154.5 161.6	286.4 256.1	153.6 160.7	201.9 189.2	81.3 77.7	100.6 82.0	81 - 3 77 - 7	100-6] 82-0
19	2190.0	2190.0	278.8	448.7	276.1	303.1	236.8	318.1	286.8	318.1
20	1168.0	1168.0	278.8	450.9	276.1	304.3	286.8	320.1	286.8	320.1
21	2190.0	2190.0	283-9	1064.4	281.1	656.5	329.0	582.4	329.0	582-4
22	2190.0	2190.0	284.0 14.3	1133.9 39.5	281.2 14.3	694.2 39.5	340.1	625.7	340.1	625.7
23	748.3	748.3	12.0	15.2	12-0	15.2	2	106.4 77.9	. 2	67.0 51.2
25	197.1	197.1	9.2	12.1	9.2	12.1	1.9	2.0	1.9	2.0
26	219.0	219.0	- 3	- 5	.3	. 6	2.2	5.5	2.2	5-5
27	530.0	2190.0	.2	.4	283.6	697.3	2.2	2.2	2 2 364 1	2.2
28	1496.5	693.5	286.4 198.9	1139.4 216.8	198.9	216.8	364.1 49.7	650.7 237.2	49.7	650.7 175.0
30	361.4	416.1	146.2	165.6	146.2	165.6	47.2	57.1	47.2	56.9
31	657.0	1022.0	536.7	1555.6	534.0	943.8	326.4	608.1	326.4	608.1
32	565.8	1022.0	462.8 368.9	1408-4	460.0 366.2	847.1 790.8	328.8 341.7	610.4	328 8 341 . 7	610.4 640.8
33	684.4 346.8	346.8	.0	1320.0	.0	0	.0	640 8 27 6	0	27.6
3.5	2098.8	2190.0	146.4	165.9	146.4	165.9	49.5	59.2	49.5	59.0
36	213.5	213.5	111.8	118.0	111.8	118.0	80.1	81.1	62.5	63.5
37	292.0	292.0	911.7 219.8	911.7 676.3	629.0 219.8	566.7 446.3	188•2 306•2	188 2	73.4 306.2	73.4 518.4
38	346.8 306.6	346.8 306.6	6.6	219.4	3.7	65.9		518.4 35.9	12.6	
40	365.0	365.0	219.8	676.3	219.8	446.3	363.8	576.0	363.8	576.0
4.1	456.3	456.3	- 4	. 4	-4	4	269.0	598.0	269.0	269.0
4.2	284.7	284.7	7.1	219.9	4.1	66-4		305.0	281.6	305.0
43	355.9 355.9	355.9	435.0 641.5	891 5 854 4	435.0	661.5 355.9		522.7 216.0	310 - 5 77 - 8	522.7 101.1
45	175.2	175.2	1.4	21.3	1.4	14.6	12.1	22.2	12.1	22.2
46	282.9	282.9	248-4	523.2	248.4	363.2	392.2	535.3	392.2	535.3
47	219.0	219.0	-0	21.3	-0 1-4	1		24.0	11.8	.2 21.9
48	208 - 1 529 - 3	529.3	1.4	21.3 166.7		14.6 129.2		21.9 295.1	108.9	108.9
50	197.1	197.1	1.4	21.3				21.9	11.8	21.9
51	383.3	383.3	168.1	188.0	137.3	143.8	307.0	317.1	120.7	130.8
52	219.0	219.0	0.0	.0				•0		.0 535.3
	273.8 438.0	273.8 438.0	248.4					535.3 1314.0		
55	629.6	629.6	170.9	170.9	143.1	137.0		1314.0	438.0	438.0
56	401.5	401.5	.0	.0	.0	.0	-0	.0	.0	.01
57	273.8	273.8	-0	0		17(2		4707.0	0.	
	565.8	273.8	170.1	170 1 7	142.3	136 2 . 7	1303.9	1303.9 10.1	434.6 3.3	
	273.8 684.4	684.4	596.8		596.8	596.3	39.4	40.7	39.4	
61	821.3	821.3	597.6	598.4	597.6	597.1	49.5	50.8	42.8	44.0
62	511-0	511.0	.0	0.00		.0	.0	.0	.0	.0
63	365-0	365.0	597.6	598.4	597.6	597.1	49.5	50.8	42.8	44.0

(Per Year; Unit: 1,000 tons)

	2007	anaai		East					Bound	
	Track C	apacity	Traffic	Demand	Traffic	Volume	Traffic	Demand	Traffic	Volume
	TUOHTIW	WITH	WITHOUT	WITH	WITHOUT	WITH	WITHOUT	WITH	WITHOUT	WITH
		346.8	1.4	2.5	1.4	1 8 2 9	9.6	10.3	9.6	10
		155.1 511.0	1.4	3.0 5.6		4.8	10.8	11.6	10.8	11
~ 1	50 (50) (10)	821.3	.0	2.6	-0	. 7	•0	6.8 76.0	.0	_6
		821.3	. q	153.1 53.0	1.4	69.2 25.9	.0 11.6	33.9	.0 11.6	. 76 33
	784 - 8 2190 - 0	784.8 2190.0	1.4 7.1	7.3	7.1	7.3	.0	- 0	.0	
8	1843.3	1843-3	7.5	249.9	7.5	113.5	.0	117.0 7.2	7 1	117
	1569.5	1569.5 1058.5	.0	.0		.0	7.1	.0	0	7
	1058.5 1259.3	1259.3	ď	.0	·ő	0	.0	.0		1 1 1 1
2	1569.5	1569.5	d	- 0		.0	.0	100.0	.0	
~ 1	1204-5	1204.5	11.3 2.7	492.0 675.7	11.3 2.2	237.7 322.6	11.9 19.4	188.0 250.8	11.9 19.4	188 250
	2098.8 511.0	511.0	5.0	45.6	.0	19.7	11.3	29.8	11.3	29
- 1	1843.3	1843.3	148.0	193.9	145.4	100.7	249.0	263.5	249.0	593
	2190.0	2190.0	161 3	319.4	160.0 167.1	195.7 183.3	97.9 93.6	121.3 98.7	97.9 93.6	121 98
	1423.5 2190.0	2190.0	168.4 309.4	281.0 513.3	305.5	296.4	346.9	384.9	346.9	384
0	1168.0	1168.0	309.4	516.0	305.5	297.6	346.9	387.2	346.9	387
	2190.0	2190.0	315.5	1262.0	311.5 311.6	651.7 689.3	396.7 409.6	703.3 755.3	396.7 409.6	703
	2190.0 2190.0	2190.0	315.6 15.9	1346.4 46.5	311.6 15.9	46.5	407.0	129.8	409.0	755 68
4	748.3	748.3	13.1	17.1	13.1	17.1	.3	95.2	- 3	52
5.	197.1	197.1	9.7	13.3	9.7	13.3	2.0	2.0 2.3	2 0 2 3	2
	219.0 230.0	219.0 230.0	رُ ا	. 6 5	.2	. 5 4	2.3	2.3	2.3	5
	1496.5	2190-0	318.5	1353.1	314.5	692.7	438.2	785 1	438.2	785
9	602.3	693.5	225.4	247.0	225.4 172.7	247.0		281.9	58.6 55.6	184
	361.4 657.0	1022.0	172.7 627.4	196.0 1859.0	623.4	196.0 933.7	55.6 394.0	67.5 734.9	394.0	734
	565.8	1022.0	539.5	1683.9	535.5	837.4	396.8	737.5	396.8	737
3	684.4	1022.0	427.8	1578.7	423.8	7.82.5	411.9	773.6	411.9	773
	346.8 2098.8	346.8 2190.0	.0 173.0	.0 196.3	.0 173.0	196.3	.0 57.9	33.6 69.6	.0 57.9	33 69
	213.5	213.5	134.0	141.4	134.0	141.4	96.7	97.9	74.3	75
7	292.0	292.0	1086.1	1086.1	685.2	630.9	230.4	230.4	82.0	82
	346.8 306.6	346.8 306.6	250.0 8.0	803.3 266.3	250.0 3.7	444.6 58.0	367.5 15.5	624 . 3	367.5 15.5	624 43
	365.0	365.0	250.0	803.3	250.0	444.6	436.0	692.8	436 0	
1	456.3	456.3	. 6	. 6	.6	6	323.6	323.6	323.6	323
	284.7 355.9	284.7 355.9	\$ 6 509.6	266-9 1063-0	4.3 509.6	\$8.6 704.2	339.1 372.6	367.2 629.4	339 1 372 6	367
	355.9	355.9	761.1	1019.3	355.9	355.9	235.9	263.9	87.5	629 115
5	175.2	175.2	1.6	25.7	1.6	15.1	14.5	26.7	14.5	26
	282.9 219.0	282.9 219.0	279.6	612.3	279.6 .0	363.3	469.9	642.9	469.9	642
	208.1	208.1	1.6		1.6	.0 15.1		26.4	14.2	26
9	529.3	529.3	205.1	205.1	160.9	154.9	359.6	359.6	120.1	120
	197.1 383.3	197.1 383.3	206.8	25.7	1.6	15.1 170.1			14.2	5.6
2	219.0	219.0	200.5	230.9	102.0		373.9 .0	386.1	134.3	146
3	273.8	273.8	.279.6	612.3	279.6	363.3	469.9	642.9	469.9	642
4	438.0 629.6	438.0 629.6	210.4	210.4 210.4	170.6 170.6	165.2			438.0	438
6	629.6 401.5	401.5	210-4	210.4	-170.8	165.2			438.0	438
7	273.8	273.8	_ C	0	0	- 4.0	.0	.0		
15	565.8	565.8	209.5	209_5	169.6	164.2	1464.3	1464.3	434.2	434
	273.8 684.4	273.8 684.4	698.8	9 699_7	.9 698.8	9 697.7	12.5 48.8		3.7	3
1	821.3	821.3	699.7	700.7	699.7	698.6	61.3	62.8	48.8 52.5	50 54
	511.0	511 a0	699.7	.0	.0.	.0	.0	.0	.0	
اد	365.0	365.0	034.	700.7	699.7	698.6	61.3	62.8		54

Appendix 4-10-1 Calculation for Adjustment of Traffic Demand

Adjustment was made by dividing the inter-zonal traffic (Tij) by the ratio of the link traffic to transport capability (RECLn) of the corresponding link.

RFCLn = DLn/CLn

ATij = Tij/RFCLn

Where:

RFCLn: Overcapability ratio in link n

CLn: Transport capability of link n

DLn : Link traffic of link n

ATij: Adjusted inter-zonal traffic volume between i and j

Tij : Inter-zonal traffic demand between i and j

The above calculation was repeated for all links until the adjusted link traffic will reach the transport capability.

Appendix 4-10-2 Passenger OD Table after Adjustment by Capability

Passenger OD Table (1992) [With] Mode: Express (Unit: 1,000 pass.)

1. FERAK 0.00 3. RANGCIANG 0.00 3. RANGCIANG 0.00 4 ~ 19. JABOTABEK 0.00 20. PRUJAKARTA 13.99 21. C. I KAPTEK 69.77 22. S. SCIABLINI 0.00 25. SUKABUNI 1.702.00 25. BANDUNG 1.702.00 25. BANDUNG 1.702.00 26. JATI BARANG 1.68.20 27. JATI BARANG 1.68.20 28. C. I REBON 1.467.1 29. REBES 166.00 30. SANJAR 1.703.00 30. SANJAR 1.703.00 31. SEPARRANG 1.241.8 32. YOGYAKARTA 2.404.11 33. SANGKARI 2.404.11 32. JEMBER 16.80 33. JEMBER 0.00 32. PRUJARAKARTA 0.00 33. RANGKASBITUNG 0.00 4 ~ 19. JABOTABEK 165.11 4 ~ 19. JABOTABEK 165.11 20. PRUJAKARTA 0.22 21. C. IRAMAKARTA 0.22 21. C. IRAMAKARTA 1.43 22. JABOTABEK 165.11 23. PRUJAKARRI 31.3	30. BANJAR		315.000000000000000000000000000000000000	83. SKRAP W C C C C C C C C C C C C C C C C C C C		1,100000000000000000000000000000000000	46.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	00000000000000000000000000000000000000	1.284.91 1.284.91 1.20.00 1.00
25 1 1 1 1 1 2 1 2 1 3 3 3 3 3 3 3 3 3 3 3	30. BANJAR					2,634 1.1. 1.1. 1.1. 1.1. 1.1. 1.1. 1.1	25	00000000000000000000000000000000000000	1284 81.1 1284 81.1 1284 81.1 12.1 10.
	30. BANJAR 15. 67 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0					2 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	20		1.284.2.1.0.1.0.1.0.1.0.1.0.1.0.1.0.1.0.1.0.1
	30. BAN JAR 1 15. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10					1.701.1 1.55.1 2.00 3.00 3.00 1.56.4 3.70.1 1.15.6 3.70.1 1.15.6 3.30.1 3.70.1 1.15.6 3.30.1 3.70.1 1.15.6 3.30.1 3.70.1 1.15.6 3.30.1 3.70.1 1.15.6 3.70.1	25	% 000000000000000000000000000000000000	1.284.9 21.7.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0					2.684 : 8 : 8 : 8 : 8 : 8 : 8 : 8 : 8 : 8 :	ic.		
	30.00000000000000000000000000000000000					2000 2000 3700 2000 2000 2000 2000 2000	ic in the second	000000000000000000000000000000000000000	7. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.
1 - 12 - 23 66 88	30. BANJAR					2,634.3 2,634.3 2,634.3 2,634.3 2,634.3 2,634.3 2,634.3 2,634.3 2,634.3 2,634.3 2,634.3 2,634.3 3,634.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u> </u>	44
	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0					0.0 0.0 0.0 0.0 370.1 115.6 52.1 2,634.3	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	000000000000000000000000000000000000000	
	0.0 0.15 15.4 10.0 0.1 15.4 10.0 0.1 10.0 0.1 10.0 0.0 0.1 0.0 0.0					0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	ig.		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
- 1- 1-23 6 18	7.60 0.00 0.00 0.00 0.00 0.00 0.00 0.00					0.0 0.0 0.0 370.0 370.0 370.1 115.6 270.1 270.1 270.1	ici	0000000000000	000000000000000000000000000000000000000
6 8 8	7.6 0.0 0.0 15.4 0.0 0.1 0.0 0.0 41.5 0.0					2.2 0.0 0.0 378.0 376.1 115.6 52.1 52.1 2,634.3	ic	000000000000	35. 10. 10. 0.0 35. 9. 17. 0.0
	0.0 0.1 15.92 0.9 0.0 0.0 41.5 830 BANJAR					0.0 0.0 378.0 376.1 115.6 52.1 2,634.3	IC.	00000000000	0.0 0.0 10.1 254.0 35.1
	0.2 15.4 0.1 0.1 0.1 41.5 30.6ANJAR					9.0 378.0 378.0 376.1 115.6 52.1 52.1 2,634.3	i.e.	0000000000	0.0 1.0 10.1 24.0 35.1 17.0
172 6 8 8	0.1.0 0.1.0 0.1.1 30.6ANJAR					378.0 378.0 378.1 115.6 52.1 52.1 2,634.3	2	00000000	10. 9. 54.(35.
1 2 6 8 7	15.4 1.1 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0 0.0					378.0 0.0 370.1 115.6 52.1 3.5 2,634.3	3	0000000	10. 54.(35.(
6 88	1.1 0.0 0.0 1.0 0.0 0.0 0.0 0.0 0.0				0.0000	370.1 115.6 52.1 3.5 2,634.3	22	000000	35.
88 88	0.0 0.1 0.0 41.5 80.8ANJAR				0000	370.1 115.6 52.1 3.5 2,634.3	18.6 0.3 0.0 529.2	00000 0000	35.0
6 85 85	0.1 0.0 0.0 41.5 30.8ANJAR				0.0	115.6 52.1 3.5 2,634.3	0 0 0.1 229.2	0000%	35.
6 8 8	0.1 0.0 41.5 30.BANJAR				0.0	52.1 3.5 2,634.3	0.1 529.2	0 0 0 0 0 0 0	2.0
6 88 8	0.0 41.5 30.8ANJAR				0.0	2,634.3	529.2 529.2	0.7 0.0	c
6 8 9	41.5 30.8ANJAR				0.00	2,634.3	529.2	2.8	
% 88 V	30.BANJAR				10.0				1,859.
	0			*	34.MADIUN	35. JEMBER	TOTAL		
	:	5.7	31.2	₹	7	0.1	56.9		٠.
	0.0	0.1	0.1	0.0	0.0	0.1	187.4		
		0.0	0.3	0.1	0.1	0.1	9.1		
		1,236.5	2,372.5	778.7	K	16.5	9,413.7		
		1.1	6.0	0.1		00	41.5		
		21.9	53.4	3.0	0.5	0.51	394.3		
	3 2.3	14.6	14.6	6.0	0.0	0 0	424.5		
-		0.0	ე ე	0.0	0.0	0.0	9.7		
		0.0	1.0	0.2	0.0	0.0	16.8		
		0.0	370.1	115.6	52.1	3.5	2,634.3		
26. JAT I BARANG 10.		11.7	8. 8.	e.0	0.1	0.0	529.2		
		0.0	0.0	0.0	0.0	0.0	2.8		
			24.0	35.3	17.0	e. 0	1,853.6		
_		2.3	18.4	O.4	0.0	0.1	232.4		
30.BANJAR 0.	:	0.0	237.2	116.8	51.4	12.5			
<u> </u>		0.0	216.0	180.4	0.0	ਰਾ 0	1,689.7		٠.
32. YOGYAKARTA 18.4	.4 237.2	218.0	0.0	281.3	π .1	56.1	1		
33.SURABAYA 0.		180.4	281.3	0.0	1,322.6	83.9	2,924.0		
		0.0	77.1	1,322.6	0.0	269.1			
		0.4	58.1	6 8	289.1	0.0			
TOTAL 232.	1 3	1.699.7	3,802.8	2.524.0	2.329.7	443.2	28.336.6		-

O S							24		. :)											ż									-												
pass	CIREBON	0.0	0.0	0.0	ις.	135.8	37.5	131.8	0.0	0.0	0.0	30.4	0	0	16.8	0.0	0.0	0.0	0.0	0.0	0.0	657.5			٠									-										
1,000	. JAT I WAN 28. C	0.0	0.0	0.0	0.0	0.0	0 Q	ው 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0	0.0	0 4									:				-					-				
(Unit	26. JAT I BAR 27.	0.0	0.0	0.0	Į-1	0.0	13.8	114.9	0.0	0.0	0.0	0.0	0.0	30.4	17.4	0.0	0.0	0.0	0.0	0.0	0.0	178.2	TOTAL	0.3	60.2	4	2,912.2	1,025.4	1,550.1	967.0	307.4	473.5	792.0	178.2	0	67/00	200	201.0	7.8	552	1.000 1.000	906	10 581 2	7.122121
	25. BANDUNG 2	١.	0.0	0.0	400.5	43.3	0.1	0.0	52.8	198.0	0.0	0.0	0.0	0.0	0.0	97.0	0.3	0.0	0.0	0.0	0.0	792.0	35. IFMRER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	000	0,0	5 0	5 0	0	7	5 0	7 C	, C	(. ×
21	4. CLAN, JUR 25.	0.0	0.0	0.0	8.65	0.0	0.0	0.0	225.1	0.0	138.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	473.5	34 MADITIM 135	4-	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0	0,	0.0	0.0	000	400	5 K	21.5		0 0	587.7	11 * 12 7
le: Local	23. STIKABLM 2	0.0	0.0	0.0	23.5	0.0	0.0	0.0	0.0	225.1	52.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	307.4	33 SURBRAN 3	0.0	0	0.0	0.0	0.0	0.0	0.0	0:0	0.0	0.0	0.0	0	000	0,0	100	200	- 0	0.0	21.0	552 1	11002
] Mode	. PEGADEN	0.0	0.0	0.0	9.009	0	97.0	0.0	0 0	υ o	0.0	114.9	0.4	131.9	22.2	0.0	0.0	0.0	0.0	0.0	0.0	967.0	32 VOCVAKAL	10.0	0.0	0.0	0.0	0.0	0	0	0	0	0.0	0.0	0.0	0.0	2 5	0 10	7,0	3 -	7	70	720	5
) [With	CHKAMPB 22	0.1	9.0	3.9	1.367.1	29.8	0.0	97.0	0:0	0.0	0.1	13.8	0.0	37.5	0.0	0.1	0.3	0.0	0.0	0.0	0.0	1.550.1	SEMARAN	0.0	0.0	0.0	0.0	0.0	e.0	0.0	0.0	0.0	0.3	0.0	0.0	3.0	2000	300	200	0.00	200	500	5 CV 1	4.74.
(1992)). PRIJUAKA 2)	1 .	59.6	0.8	456.3	0.0	23.6	0.0	0.0	0.0	43.3	0.0	0.0	435.8	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1,025.4	30 BANIAR 31	175	0.0	0.0	1.1	0.1	0.1	0.0	0.0	0.0	97.C	0	3,0	500	3 0	3	3 2	21.0	2	700	121	S. 101
OD Table	1-19 20	0.0	0.0	0.0	0.0	516.6	1.371.7	8.009	E7 83	8 6	400.5	1.7	0.0	5.1	0.0	1.1	0.0	0.0	0.0	0	0.0	2,977.1	29 RRFRFS 3	10	0.0	0.0	0.0	0.0	0.0	22.2	0.0	0.0	0.0	17.4	0.0	16.8	0.0	5 0	200	500	3 6	500	300	72.00
Passenger 0	0 0	1.MERAK	2.PANDECLANG	3. RANGKASBITUNG	1 2~19. JABOTABEK	20. PRUMAKARTA	21.CIKAMPEK	22. PEGADENBARU	23. SUKABUMI	24. CLANJUR	25. BANDUNC	26. JAT I BARANG	27. IATIWANGI	28 CIREBON	29.BREBES	30.8ANJAR	31.SEMARANG	32. YOCYAKARTA	33.SURABAYA	34. MADIUN	35. JEMBER	TOTAL	0	┰	2. PANDEGLANG	3. RANGKASBITUNG	4~19.JABOTABEK	20. PRUMAKARTA	21.CIKAMPEK	22. PEGADENBARU	23. SUKABUM!	24.CIANJUR		26. JATIBARANG	Z7. JAT IWANGI	28.CIKEBON	29. DKCDCS	OU DAIN AN	SI SCHRANG	22 CHUSTARAKIA	33. 3CARORTA	SA. HAUTUN	TOTAL	ייטועי

	pass.)	CIREBON 140 1	29.0	0.0	0.0	685.2	143.1	20.2	, 868.4	768.3	0.0	127.2	012,4	647.8	218.9	0.88	30.7																					
	8	82	0.0		0.704.0	14.9	3.1	 	673.3	1 /0.2	765.2	0.1	1.460.8	102.7	0 1	7.5	4.475.8																			. •		
		JAT 184R 27.	0.6%	0.0	2, (83.8	132.1	470.2	0.1	752.9	0.0	1,631.5	160.8	59.1	191 0	9.0	8.0	7.007.0	TOTAL	1.673.6	937.9	51.048.7	3,575.0	7,154.7	6.292.1	4.855.6	30,766.2	4.475.6	15,820.9	77 657 0	28. 289. 2	23, 101.5	43,256.1	25,633.4 76,490.24	29,377.4				-
		BANDUNG 26	452.7	212.6	8.035.4	869.3	1.696.1	2,438.9	0.0	(52.9	2,668.4	71.4	8 618	2010 2010	271.8	207.2	30.766.2	1 SERVE	1 1	0:1	471.5	0.1	105.2	0	0.0	1.00	0.1	Ŋ	0 6	437.8	242.3		9.023.0	26,490.2				
٠		CLANJUR 25	86.89	12.0	0.77.1	5.4	126 5	0.0	2,438.9	- 0	20.2	0.0	357.2	2 12	45.3	0	4.855.6	MADITIM-1 25	7.	0.1	1.452.1	15.0	 C	- 1c	0.1	207.2	0 10	88.0	3.0	497.B	0	10,775.5	0.00 6					
	c)	SUKABUM 24	238.1	1,107.4	3,024.5	17.2	12.2	73.2	939.6	30.1	285.8	0.1	307.7	30.5	0.1	7.5	6.292.1	S. SHRABAVI 34		7.5	2.631.5	0.1	- œ	0	45.3	271.8	0.0	218.9	m c	10,606.7	2 435 8	0	16.051.9	Š				
 	.] Mod	KAMPEI 22. PECADEN 23	0	0.0	876. 803.	427.3	0.0	126.5	1,696.1	470.2	143.1	0.0	0.19	12:22	7 1	0 1	4.927.3	32 VOCVAKA 33	Ш	000	3.501.0	21.9	413.6	300	7.5	3010	102.7	647.6	122 9	7.414.8	0.0	2,435.8	3,547.0	23.101.5		• •		
		<u>:</u>			3.344.3 406.7	0.0	427.3	5.4	869.3	132.1	685.2	3,0	100.0	413.6	80.9	1.4	7.154.7	31 SFMARAN 32		0.0	9,231.2	44.2	200 200 200 200 200 200 200 200 200 200	15.1	0.1	889.3	22.6	1,971.5	2,279.0	0.0	7,414.8	10,606.7	437.8 137.8	38, 289.2				
	(1992)	PRUMAKA 21	50.1	0.0	0.0	406.7	803.8	72.7	855.3	152.1	0.0	15.3	200	21.6	0.1	15.0	3.575.0	RAN IAR 31	159.8	2 P	5.494.9	180.5	452.4 61.0	307.7	357.2	8,618.3	1.460.8	1.012.4	808	1.	3,895.8	- 1	218.05	27.654.6				
	Table	1-19 20	0.0	0.0	0.0	3.434.0	862.3	1,702.1	9,426.4	2,357.2	5.545.7	1,107.7	5.873.6	3.804.3	2,683.1	1,459.7	55.181.3	29. BRFBFC 30	14.5	0	1,093 1	15.3	5 C	0	0.0	71.4	0.10	127.2	0 0	2.279.0	122.9	es :	자 C		1 <u>1</u> 1			
	assenger OD	С	CLANG	ASBITON	ABOLAGEN	MPEK	22. PECADENBARU	30	ONC	BAKANI, USKCI	BON	ES	PANC	AKARTA	-			0 29		CLANG	4~19. JABUTABEK	1 1	MPEK DENRAPI	23. SUKABUMI	J.	RAPANC	WANGI	.¥O	S	RANG	AKARTA	8AYA	z z				-	
	Pass	() MSP 4 K	2. PANDE	3. RANGK	20 PRIN	21 CIKA	22 PECA	24.C.I AN	25. BANDUNG	27 IAT IUSKEI	28.CIREBON	29.8REB	0 S	32. 4064	33. SURABAYA	34 MAD	TOTAL	0	1.MERAK	2. PANDE	4~19.	20. PRUM	21.CIKA 22.0EGA	23. SUKA	24.CIANJUR	25.84ND	27. IATI	28.CIRE	29. 8KEB	31.SEHA	32.4004	33. SURA	34 PADEUN	TOTAL				

			٠,																																									
28.CIREBON	0.0	0.0	8	426.2	0.0	3	3	0	0.0	0.0	3.5	0	0.0	1.0	10.7	တ	54.0	35.3	17.0	о	572.3	-																						
NA.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0										•	. '			:									
LATIBAR 27	0.1	0.0	0.0	98.7	0.0	J. 4	0.3	0.0	0.0	0.0	0.0	0.0	3.5	10.2	2.6	ر ا	14.3	0.3	0.1	0.0	136.8		770	18.1	0.3	8.7	6,787.8	23.0	118.6	258.6	9.7	16.8	1,878.0	136.8	0.0	572.3	167.0	1.263.2			2,894.6	2,316.7	,	7,554.4
ANDUNG		0.0	0.0	947.8	1 2	2.9	0.0	0.0	6.4	0.0	0.0	0.0	0.0	0.0	378.1	0.0	370.1	115.8	52.1	3,57	1,878.0	00000	CHECK	0.1	0.1	0.1	10.4	0.0	0.0	0.0	0.0	0.0	33 51	0	0.0	0.3	0.1	12.5	٥.4	56.1	83.0	269. []	-	
UR 25.	D	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	6.4	0.0	0.0	0.0	0.0	5.1	0.0	0.1	0.2	0.0	0.0	16.8	l L	_	2.9	0.0	0.0	524.0	0:0	0.4	0.0	0.0	0.0	52.1	0:1	0.0	17.0	0.0	51.4	0.0	77.1	1,322.6	0.0	269.1	4,310.1
1":		0.0	0.0	5.5	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	00	0.0	0.0	9.7	70 101010	SULVENTI OF	1.8	0.0	0.1	753.4	0.1	2.3	0.4	0.0	0.2	115.6	0.3	0.0	35.3	0.4	116.8	180.4	281.3	0.0	1,322.6	33.5	2,234.5
1	1	0.0	0.0	237.5	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	ю S	3.2	2.1	4.0	7.8	B.O.	0.0	0.0	258.6	CG (1/11/1/20//	SCHAIN S	12.6	0 1	0 0	2,177.4	0.0	14.1	7.6	0.0	1.0	370.1	14.3	0.0	54.0	18.4	237.2	216.0	0.0	281.3	77.1		
CIKAMPI 22	0.0	0.0	0.0	69.6	୦.ଖ	0.0	0.0	0.0	0.0	2.3	ਰ•1	0.0	3.Z	0.7	17.4	6.1	14.1	2.2	0.4	0.0	118.6			80.0	0.	0.0	984.9	0.0	8.1	4.0	0.0	0.0	0.0	es es	0.0	о: Б	2.3	0.0	0.0	216.0	180.4	0.0	# 0 0 0 1	71,403.0
		0.0	0.0	7.3	0.0	0.6	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	13.6	0.0	0.0	0.1	0.0	0.0	23.0	č		0.0	0.0	0.1	415.d	13.6	17.4	2.1	0.1	5.1	378.1	2.6	0.0	10.7	0.5	o. 0	0.0	237.2	115.8	51.4	2.5	1,203.4
1-19 20.		0.0	0.0	0.0	7.2	69.6	237.5	5.3	0.0	947.8	98.8	0.0	434.3	130.2	415.1	985.8	2,190.4	755.1	526.9	10.7	6,814.9	` [−	٠,	0	0.0	0.0	130.2	0.0	0.7	3:2	0.0	0.0	0.0	10.2	0.0	0.1	0.0	0.5	2.3	18.4	0.4	0.0	0.1	70,707
0	I. MERAK	2. PANDEGLANG	3. RANGKASBITUNG	1 ~ 19. JABOTABEN	20. PRUMAKARTA	21.CIKAMPEK	22.PECADENBARU	23. SUKABUMI	24.CIANJUR	25.BANDUNG	26. JATIBARANG	27. JATIVANGI	28.CIREBON	29 BREBES	30. BANJAR	31.SEMARANG	32, YOGYAKARTA	33.SURAB4Y4	34. MADIUN	35. [EMBER	TOTAL	- }-		1. MEKAK	2. PANDEGLANG	3. RANGKASBITUNG	4~19. JABUTABEK	20.PRUVAKARTA	21.CIKAMPEK	22. PEGADENBARU	23. SUKABUMI	24.CLANJUR	25.8ANDUNG	26. JATIBARANG	27. JATIWANGI	28 CIREBON	29.BREBES	30.BANJAR	31. SEMARANG	32.YOCYAKARTA	33.SURABAYA	34. MADIUN	35. JEMBER	LUIAL
	20. PRIMARA 21. CI KAMPE 22. PECADEN 23. SUKABUM 24. CIAN IUR 25. BANDUNG 26. IATIBAR 27. JATIMAN	22. PEGADEN 23. STRAMPRI 21. STRAMPRI 22. PEGADEN 23. SUKABUM 24. STAMJUR 25. BANDUNG 26. JATIBAR 27. JATI	CHICANG 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	19 20. PRIWAKA 21.CIKAMPE 22. PECADEN 23. SUKABUM 24. CIAN UR 25. BANDUNG 26. JATIBAR 27. JATIWAN 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1-19 20. PRIWAKA 21.CIKAMPE 22. PECADEN 23. SUKABUM 24. CIAN UR 25. BANDUNG 26. JAT18AR 27. JAT19AN 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1-19 20. PRIWAKA 21.CIKAMPE 22. PECADEN 23. SUKABUM 24. CIAN UR 25. BANDUNG 26. JATIBAR 27. JATIWAN 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.		1-19 20. PRIJAKA 21.CIKAMPE 22. SKRBUM 24. CIAN UR 25. BANDUNG 26. JAT18AR 27. JAT19AN 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1-19 20. PRIVAKA 21.CTKAMPE 22. SKKABUM 24.CTANJUR 25. BANDUNG 26. JATTBAR 27. JATTWAN 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1-19 20.PRWARA 21.CI KAMPO 22.PEGADEN 23.SUKABUM 24.CIAN UNG 25.BANDUNG 26.JATIBAR 27.JATIWAN 28.CIRI 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1-19 20.PRIMARA 21.CI KAMPG 22.PEGADEN 23.SUKABUM 24.CIAM. 25.BANDUNG 26IATIBAR 27IATIWAN 28.CIRI 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1-19 20.PRWARA 21.C KAMPG 22.PEGADEM 23.SUKABUM 24.CIAN JUR 25.BANDUNG 26IATIBAR 27IATIWAN 28.CIRE 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1-19 20.PRIMARA 21.CI KAMPG 22.PEGADEN 23.SUKABUM 24.CIAM UNG 25.BANDUNG 26.1AT1BAR 27.1AT1WAN 28.CIRR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-19 20.PRIMARA 21.CI KAMPG 22.PEGADEN 23.SUKABUM 24.CIAM UNG 25.JATIBAR 27.JATIWAN 28.CIRR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-19 20.PRWARA 21.CI KAMPG 22.PEGADEN 23.SUKABUM 24.CIAN JUR 25.BANDUNG 26.JATIBAR 27.JATIWAN 28.CIR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1-19 20.PRIMARA 21.CI KAMPG 22.PEGADEN 23.SUKABUM 24.CIAM UNG 26IATIBAR 27IATIWAN 28.CIRR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-19 20.PRIMARA 21.CI KAMPG 22.PEGADEN 23.SUKABUM 24.CIAN UNG 26IATIBAR 27IATIWAN 28.CIRI 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1-19 20.PRIMARA 21.CI KAMPG 22.PEGADEN 23.SUKABUM 24.CIAN UNG 25.BANDUNG 26.IATIBAR 27IATIWAN 28.CIRR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-19 20.PRIMARA 21.CI KAMPG 22.PEGADEN 23.SUKABUM 24.CIAN JUNG 25.BANDUNG 26.JATIBAR 27.JATIWAN 28.CIRR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-19 20.PRIMARA 21.CI KAMPG 22.PEGADEN 23.SUKABUM 24.CIAN JUNG 25.JATIBAR 27.JATIWAN 28.CIRI 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1-19 20.PRIMARA 21.CI KAMPG 22.PEGADĒN 23.SUKABUM 24.CIANĴUR 25.BANDUNG 26IATIBAR 27IATIWAN 28.CIRR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-19 20.PRIMARA 21.CI KAMPG 22.PEGADEN 23.SUKABUM 24.CIAN JUNG 25.BANDUNG 26.JATIBAR 27.JATIWAN 28.CIRR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-19 20.PRIVAKA 21.CIKAMPE 22.PEGADEN 23.SUKABUM 24.CIAMJUN 25.BANDUNG 26.JATJBAR 27.JATJVAN 28.CIRR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-19 20. Prinaraka 21. C kampe 22. Precaden 23. Sukabum 24. C Anjurg 25. Bandung 26. Attiban 28. C Richard 20. C C C C C C C C C C C C C	1-19 20. PRIWAKA 21. CIKMPE 22. PECADEN 23. SUKABUT 24. CIAMUNG 25. BANDUNG 26. JATTERAR 27. JATTERAN 28. CIRC 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	1-19 20. PRIWARA 21.CIKMPE 22. PECADEN 23.SUKABUM 24.CIAM/UR 25. BANDUNG 26. JATTBAR 27. JATTUAN 28.CIRR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-19	1-19 20.PRIVARA 21.CIRAMPE 22.SUKABLM 23.CIKABLM 25.BANDUNG 26.JATIBAR 27.JATIVAM 28.CIRB	1-19 20.PRIWARA 21.CIKAMPE 22.PEGADEN 23.SIKABUM 24.CIAMJUNG 25.BANDUNG 26.JATTIGAN 23.CIRR	1-19	1-19	1-19 20.PRWAMA 21.CIKMFG 22.PEGADEN 23.SIKKBUY 24.CIANIIR 25.SANDWA 26.LIATIBAR 27.JATIBAR 27.	1-19 20.PRVAKR 21.C KAMPG 22.PEGUDEN 23.SIKKBUM 24.CIAN JIR 25.BANDUNG 26.JAT1BRR 27.JAT1B4N 28.CIRR 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	1-1 9 20-PRIVARIA 21.C RAMPR 22.PEGADEN 23.5 KABLA 24.C AN UR 25.BARDMAG 26.JATIBAR 27.1ATIGAN 23.C RAMPR 22.PEGADEN 22.5 KABLA 24.C AN UR 25.BARDMAG 26.JATIBAR 27.1ATIGAN 23.C RAMPR 22.PEGADEN 22.5 KABLA 24.C AN UR 25.BARDMAG 26.JATIBAR 27.1ATIGAN 23.C RAMPR 22.PEGADEN 23.5 KABLA 24.C AN UR 25.BARDMAG 26.JATIBAR 27.1ATIGAN 23.C RAMPR 22.PEGADEN 23.5 KABLA 24.C AN UR 25.BARDMAG 27.5 C RAMPR 22.PEGADEN 23.5 KABLA 24.C AN UR 25.BARDMAG 27.5 C RAMPR 22.PEGADEN 23.5 C RAMPR 22.PEGADEN 23.5 C RAMPR 22.PEGADEN 23.5 C RAMPR 23.PEGADEN 23.C C C C C C C C C C C C C C C C C C C	1-1 9 20. PRIVARIA 21.CIRAMPR 22.PEGADEN 23.SUKABLY 24.CIAN UR 25.BATURAN 22.IATURAN 22.IATURAN 22.PEGADEN 22.SUKABLY 24.CIAN UR 25.BATURAN 22.IATURAN 23.SUKABNY 34.MANURH 35.ENRRES 30.0 3	The color of the	The color of the	Third	1-19 20 PRUMMA 21 CIKMPG 22 PECUDEN 23 SIKKBEY 24 CIALUR 25 SHNDM 26 LATBER 27 LATIFUM 25 CIR CIR CIR CIR CIR CIR CIR CIR CIR CIR	Columbia Columbia	Column C	Column C	Column C	Column C

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		25 PANDUNG 28	0.0	0.0	0.0	82.8	43.3	50	20.02	8	0.0	0.0	0.0	0.0	0.0	97.0	000	500	5 C	0	487.0			İ	0.0	5.0	500	58.0	500	000	0.0	0.0	0.0	0.0	0.0	უ 0	0.0	0.0	0	0.1	0 c) ()
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	1 1	22 PECANEN	77	0.0											2	0					119.4		32. YOGYAKA																			178.5
		7	2	0.2	3.8	1,366.5	5.0	0,0	n c	0	0 1	7.5	0.0	0.6	0.0	100	7 0) C		U U	1,418.3		31. SEMARAM	0.0	0.0	0.0	000	2	- 0	0	0.0	0:0	0.0	0.0	0.0	5.9	0.1	0	96	9. c	2.0	141
·	(1007)	ODIANAM P	0.1	25.7	0.6	426.9	0.0	20.00		0.0	43.3	0.0	0.0	0.0	0.0	0	000		50	C	526.6	1.5		0.0	0.0	000	5,-	1	0 0	000	9 0	97.0	0.0	0.0	0.0	0.0	0.0	0.1	31.7	0	7.0	3000
	۲. د د 1	2010 10	0	0.	0.0	0.0	453.3	0 0	80	8 60	95.8	0.1	0.0	0.0	0.0	000	3 c)) (o (c	0	2,056.8			0.0	0.0	0.0	000	50	3 6 3 6	3 C	0.0	0.0	.6. 6	0.0	16.8	0.0	0.0	თ დ	0	0.0	5 0	2 (2 2 (2)
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	000	as serre	1.MERAK	2.PANDEGLANG C	3. RANCKASB	12.JAB07	G. PROMAKAK	21 - C - NA II EA	23 SIKARIMI	24. CLAN IUR	25. BANDUNG	26. JATIBARA	27. JATIVANG	28.C.REBON	3. BKEBES	STATE STATE	SI. SETAKANG	SCHOOL SANA	34 MADIEIN	S IFMRER	TOTAL			'1	2. PANDEGLANG	. KANCKASB	~ 19 (ABO)	O. PROMAKAK	21.C.I NAMPEK	A CIKARIM	4. CLAN TUR	5. BANDONG	S. JATIBARANG	7. JAT I WANG	S.CIREBON	9. BREBES	30.8ANJAR	1. SEMARANG	2. VOCYAKAR	33. SURABAYA	A MADION	SO. JETIBEK TOTAL
	Ъ	4 [1	نتا		-1	T.	<u> </u>	Tr.	ŗ.			-1	- 1	1		ľ	1	70.		<u> </u>		띱	コ	21		410	719	Mc	A)C	16			ic.			[m]	ണ	m)	wk	<u> </u>	21-
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	000 pags	28.CIREBON	211.0	0.0	6.220.1	435.9	936.0	200. 40.00.	0.007	2 888 c	1.631.6	765.2	0	7710	1071	647.8	2.8.9	e8.0	30.2	17,707.3		• .																		
	r-Î	27. JATIVAN	2 - 0		1,207.5	0.1	14.9	20.00	0.12	673.3	179.2	0:0	765.2	0 027 1	2000	102.7	0.1	7.5	0.1	4.478.7																				
	(Unit	26 JAT 184R 2	23.0	0.0	3,156.2	159.8	139.8	544.0	50	755.1	0.0	179.2	1,631.6	102.4	320 8	196.7	0.6	6.0	0.0	7,482.8	TOTAL	1,712.3	1,159.2	1,522.0	4 092 7	7,562.3	5,940.8	6,292.1	4,855.6	7 787 8	4.478.7		4,782.9	27,715.9	38.5/8.3	43 285 3	25,846,3	26.496.6	39,266.4	
			7 COO	213.4	9,153.6	855.3	869.3	1,636.1	0.000 0	0.0	755.1	673.3	2,668.4	1000	8 608	301.9	271.8	207.2	76.1	31,827.7	35. IEMBER	0.5	0.1	0.1	#. C	105.7	0.0	0.1	0.0	000	0.1	30.2	0.1	4.00	286.08	16 051 9	9.023.7	0.0	26,496.8	
			50.50	12.0	1,577.0	72.7	4.0	1.00.5	2.5	2.438.9	0.1	6.3	20.2	0.00	7.100	7.5	45.3	0.1	0.0	4.855.6	34. MADIUM 3	fee	0.1	0.1	1,404.4	1.4	0.1	7.5	0.1	201.6	7 2	68.0	3.4	218.9	200	10,775.0	0.0	9.023.7	25,846.3	
	 Bus	23. SUKABUM 2	2000	1.107.4	3.024.5	0.0	17.2	7.7	200	939.6	0.1	27.3	285.8	202	15.1	30.2	0.1	7.5	0.1	6,292.1	33 SURABAY 3		7.5	0.1	8.000.7	7.5	7.5	0.1	22.3	271.0	0.10	218.9	5.1.3	0.151	3,000.0	0.00	10.775.5	16.051.9	43,285.3	٠
	Mode: I	PECADEN	000	0.0	1,478.4	803.8	515.2	3,0	77.7	1.69.1	544.9	3.33	305.2	2 :	203 A	178.3	7.5	0.1	0.0	5.940.8	32. YOCYAKA 3		0.0	0.0	3,036.1	452.8	128.3	30.2	2000	201	102.7	647.8	122.9	3.895.8	7,414	0.057.0	3.547.0	242.3	23,366.6	
		[2] [3]	S	r C		1	0.0	213.2	2.7	X69.4	139.6	14.9	936.0	755	196.2	452.8	7.5	1.4	105.7	7,562.3	31 SEMARAN 3	30.7	0.0	0.0	3,482.5	196.2	203.8	15.1	000	0.000	22.6	1,971.5	2,279.0	4.151.1	0.0	10.506.7	4.790	437.8	38,579.3	
	[Without		77.78	0.0	941.2	0.0	406.7	803.8	200	855.3	159.8	0.1	435.9	0.001	102.4 0.7.7	22.8	0.1	15.1	0.1	4,092.7	BANIAR	159.8	30.2	188.7	2.166.6	455.5	61.2	307.7	357.2	8,618.5	1.460.8	1.012.4	804.4	0.0	4.151.1	0 0	20.	10	6	
) Table	1-19 20	500	0	0.0	1.077.3	3,435.2	1.484.6	2000	10.485.4	3.328.4	1.215.2	6.583.2	0.000	0.070	3.818.0	2.711.2	1,472.4	478.1	58,953.7	3. BREBES 30.	15.2	0.1	000	1, 128.2	3.7	18.1	0.1	0.0	187 2	0.1	127.2	0.0	804.4	2.273.0	577	- K	0.0	4,782.9	
	Passenger OD	0 00000	PANDECIAN.	RANCKASB! TUNG	~ 19. JABOTABEN	20. PRUWAKARTA	21.CIKAMPEK	2. PECADENBARU	3. SUKABUMI	25. BANDONG	6. IATIBARANG	7. JATIWANGE	8.CIREBON	O PANIAD	ST. SPMARANG	22. VOCYAKARTA	33.SURABAYA	34.MADIUN	SS. JEMBER	OTAL	0 2	MERAK	2. PANDECLANC	S. KANCKASBI TUNG	7 JABU JABU	21.CIKAMPEK	22. PEGADENBARU	23. SUKABUM!	24 CLAN JUR	23 BANDUNU	27. (4T VANG	28. CIREBON	29. BREBES	30.BAMJAR	31 SEMAKANG	32 CHRARANIA	34 MADILIN	35. IEMBER	TOTAL	

Appendix 4-10-3 Freight OD Table after Adjustment by Capability

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1,000	CIREBON	0.0	0	0.0	0.60	80.3	108.9	0.0	0.0	0.0	0	S: -	0.0	0.0	0.0	5.0	0.0	0	15.4	0.0	0.0	320.6		:			•.		. •									21			. 3		÷.		
(Unit:	TIVAN 28.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0																٠.		•			:		
[ties]	T184R 27.11	0.0	0.0	0.0	2.4	0.0	67.4	0 0	0.0	0.0	0.0	0.0	0.0	13.6	0.0	0.2	0.0	0.0	83	0.0	0.0	95.4		<u>ال</u>	1.4	1.5	0.0	684.7	39.5	342.1	7.7	හ. ර	0.1	52.8	5.0	15.8	60.3	0.0	515.2	97.7	93.5	.274.7	34.4	32.1	356.0
Commodities]	VOUNCE 26. LA	2.0	1.4	0.0	9.6	5. I	55.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	1:1	2.1	5.1	7.0	2.7	38.8c		EYBER TOTAL	0.1	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	475.0	9	0.0	478.1 3
, [A11	AN JUN 25. BAN	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1		MADIUM 35 JE	0.0	0.0	0.0	10.7	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	2.7	0.0	0.0	361.3	හ. ග	0.1	376.2
Railway	KABUM 24.CI	0.0	0.0	0.0	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	10.8		SURABAY 34.MA	0.5	0.0	0.0	297.7	0.0	0.0	0.0	0.0	0.0	0:0	0.0	0.0	3.2	0.0	27.7	49.7	70.6	0.0	7.4	25.6	482.4
Mode:	CADEN 23. SU	0.0	0.0	0.0	0.2	53.9	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.1	0.0	0.0	116.2		YOCYAKA 33. SC	0.0					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	252.0	0.0	0.0	30.2	2.3	0.0	358.2
[With]	CIKAMPE 22. PE	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0 0	0.0	0.0	0.0	0.0	0.0	1.4	<u>ග</u>	0.0	ເລ ∝	0.0	0.0	8.01		SEMARAN 32. YO	0.2	0.0	0.0	0.601	0.0	න -	0.0	0.1	0.0	0.2	0.2	0.0	0.0	0.0	155.9	0.0	0.2	7.77	<u>ග</u>	0.5	347.2
(1.992)	20. PRUNAKA 21	0.0	0.0	0	53.	0.0	0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	[]	0.0	0.0	0.0	0.0	0.0	57.1		BANJAR 31.	e 0	0.0	0.0	6.9	0.0	<u>ਹ</u> ਹ	2.0		0.1	27.4	0.0	0.0	0.0	0.0	0.0	0.3	0.1	38.4	2.1	0.1	128.0
Table	1-19	S	0	0.0	0.0	व	2,0	7	0	0	22.5	15	×.61	63.53	0.0	න 	45.S	20.5	241.2	3.2	~	430.9		BREBES 30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.2	0.0	0.0	3.0	0.0	0.0	45.2
Freight OD	0	. MERAK	2. PANDEGLANG	. RANGKASBITUNG	1~19.JABUTABEK	20. PRUMAKARTA	21. CLIKAMPEK	22. PEGADENBARI	23. S. K.A.R. M.	4 CLANIUR	5. BANDUNG	6. ATIBARANG	7. LAT I WANG I	B.C.IREBON	9.8REBES	O. BAN JAR	1.SEMARANG	2. YOU'YAKARTA	3. SUR484Y4	4. MAD I UN	35. JEYBER	OTAL.		0 23	. NERAK	. PANDEGLANG	. RANGKASBITUNG	1~19. JABOTABEK	O. PRUVAKARTA	1.CIKAMPEK	2.PECADENBARU	3.SUKABUMI	4.CIANJUR	5. BANDUNG	6. IAT I BARANG	7. JATIWANGI.	8.CIREBON	O. BREBES	O. BANJAR	1. SEMARANG	2. YIXYAKARTA	3. SURABAYA	4.MADIUN	5. IEMBER	OTAL
,~~	<u></u>		. 1	•	i • †		- ^1	[•~]	1.4	1,-1	1 ²⁻⁵ 1	·!	C.3	E 9		2		 س	ľ		<u> </u>	i-	1			<u>د،</u>	دن	e 34	7	2	ςi	21	~	12	C)	<u> </u>	<u>اد،</u>	<u> </u>	i.	က	က	က	2	ကျ	ŧ-

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ton)	EBOK	0.0	ဗ	0	.284.0	182.0	2	0	0.0	0.0	384.1	041.3	8.7	0	6	166.5	161.0	8.3	29.6	0	0	4.516.2
000	S.C.	1			٠,							2,(4.5
Î	FIBAR 27. JATIWAN 28. CIREBON	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	236.7	62.3	0.0	202.8	0.0	13.3	0.0	0.0	0.0	0.0	0.0	517.2
] (Unit:	JATIBAR 27	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	120.3	0.0	160.5	1,356.3	0.0	8 8	0 8	0.0	0.0	0.0	0-0	1,650.2
Commodities	25. BANDUNG 26. JAT	65.0	33.0	0.0	2,008.4	451.9	37.4	338.5	31.8	65.2	0	842.8	1,680.1	627.9	5.0	1,002.5	128.3	46.8	8.8	89.88	9.2	7,532.0
All Coun		0	0.0	0.0	576.6	0.0	0.0	0.0	11.9	0.0	422 0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,010.5
	SUKABUM 24	14.1	0.0	4.3	914.2	0.0	33.6	0.0	0.0	3.4	221.4	0.0	0:0	21.2	0.0	0.0	4-8	0.0	Ø	0.0	0.0	1,224.6
Mode: Truck	21. CIKAMPE 22. PEGADEM 23. SUKABUM 24. CIAN JUR	0.0	0.0	0.0	8.0	732.0	2.3	0.0	0.0	0.0	268.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1,011.3
[With] M	CIKAMPE 22	0.0	0.0	0.0	157.9	54.3	0.0	145.5	0.0	0.0	85.6	0.0	0.0	0.0	0.0	0-0	30.4	0.0	0.0	 	0.0	575.2
(1992) [20. PRUVAKA 21	0.0	0.0	0.0	2,248.5	0.0	e. €.	225.1	0.0	25.4	571.4	0.0	0.0	67.9	0.0	1.8	6.7	0.0	2.4	0.0	0.0	3,154.6
Table	1-19	0.0	0.0	0.0	0.0	1,084.0	4,038.6	597.3	501.5	142.1	748.9	129.9	218.2	1,155.0	28.0	476.2	601.9	187.8	775.3	170.5	30.1	10,945.3
Freight OD	0	1.MERAK	2. PANDECLANG	3.RANGKASB! TUNG	4~19. JABOTABEK	20. PRUWAKARTA	21.CIKAMPEK	22.PEGADENBARU	23.SUKARUM!	24.CIANJUR	25.BANDUNG	26.JATIBARANG	27. JATIVANGI	28.CIREBON	29. BREBES	30. BAN JAR	31.SEMARANG	32. VOCVAKARTA	33. SURABAYA	34.MADIUN	35. JEMBER	TOTAL

	29.BREBES		31.SEMARAN	32.YOGYAKA	.SEMARAN 32.YOGYAKA 33.SURABAY 34.MADIUM	MADIUM	35. JEMBER	TOTAL
-	3.3	ა. ა	2.4	0.0	18.9	11.1	4.7	125.
\vdash	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33
3.RANGKASBITUNG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3
4~19. JABOTABEK	2.5	969.6	1,119.0	601.2	1,190.8	148.7	35.9	11,269.0
20. PRUMAKARTA	0.0	0.0	0.0	3.2	0.0	0.0	0.0	2.607.4
-	0.0	146.5	20.4	8.2	1.6	0.0	0.0	4,369.7
22. PEGADENBARU	17.2	29.4	2.8	0.0	0.0	0.0	0.0	1,417.4
H	0.0	95.6	5.3	2.3	0.0	0.0	0.0	648.
 	0.0	12.8	0.0	0.0	0.0	0 0	0.0	248.6
-	27.6	1.281.9	213.3	33.63	72.8	23.9	©.0	4,718.7
26. JATIBARANG	18.4	49.4	8 6	12.7	0.0	27.8	0	3,249.3
	0.0	110.1	2.0	0.0	0.0	0.0	0.0	2,248.7
┢	80.9	434.0	160.7	17.1	48.7	5.1	1.4	4.179.0
-	0.0	102.9	169.3	7.3	0.0	0.0	0.0	331.7
Н	41.3	0.0	891.4	1,228.5	71.5	9.7	P.0	3,912.3
-	191.6	384.7	0.0	1,752.8	739.1	137.3	53.8	4,193.0
32. YOGYAKARTA	0.0	433.7	2,430.7	0.0	179.0	129.8	7.9	3,424.0
-	4.8	129.4	808.6	907.4	0.0	6.532.9	4,593.8	13,994.4
-	0.0	17.6	223.1	542.4	3,506.2	0.0	650.8	5,150.7
	0.0		55.3	68.3	7,826.0	358.7	0.0	8,349.5
Г	8. 0. 0.	4.20	6.68.6	5,190.8	13.654.6	7.384.8	5.349.4	74.480.6

| 19 | 20 Province 21 Circappe 22 Pegaber 23 Sukabur 24 CIRANDUM 25 Bandum 26 Jatibar 27 Jativar 28 CIREBON | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 [All Commodities] (Unit: 1,000 ton)
 D 59.8REBES
 30.8ANJAR
 31.SEMARAN 32.YOCYAKAI 33.SURABAN 34.MADIUM 35.IEMBER

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 Ship [With] (1992)Freight OD Table 1-19

ton															٠.																													
1,000	CIREBUN	0 0	0.0	0.0	0.3	0.0	114.8	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	හ	0.0	0.0	15.4	0.0	0.0	132											٠.										٠.,٠	. •
(Unit:	27. JATIWAN 28		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0 0																						
Commodities]	1 JATIBAN		0.0	0.0	2.6	0.0	71.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	8.11	0.0	0.0	85.6	TOTAL	0.8	0.0	0.0	243.8	3.4	353.0	₽. Q	ন ০	0.1	47.3	 (?)	0.0	36.3	0.0	584.8	61.7	76.5	1.190.9	28.6	31.6	2,664.9
4/10	25. BANDUNG 20	0.3	0.0	0.0	त हा	0.0	55.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.6	1.1	2.1	5.1	7.0	2.7	90.1	. JEMBER	0.0	0.0	0.0	1.9	0.0	0.0	0:0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.2	0.0	475.0	9.0	0.0	477.7
Mode: Railway [All	CIANJUR 25	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	YADIUM 35	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	361.3	0.0	0 1	365.8
e: Rail	SUKABUM 24	0.0	0.0	0.0	ණ න	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.00	SURABAY 34	4.0	0.0	0.0	144.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	34.5	49.7	70.6	0.0	7.4	25.6	335.8
	PEGADEN 23	0.0	0.0	0.0	ਨ 0	0 0	0.85 0.85	0.0	0.0	0.0	0.0	0.0	0	00	000	00	0	0.0	7.1	0.0	0.0	65.5	VUCYAKA 33	0 0	0.0	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	314.6	0.0	0.0	30.2	2.3	0.0	350.5
[Without	(11 KANPEL 22)		0	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	8.5	0.0	0.0	6.6	 SEMARAN 32.		0.0					. 1		- [- 1				1	ì	l				0.5	H
(1992)	20. PRUAN 21	0.0	0.0	0.0	۳. ن	0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0	r= .:-	0.0	0.0	0.0	0.0	ى 0	17.70	 BAN AR 31	0.1	0.0	0.0	3.0	0.0	10 10	Ö	0	0.1	27.4	0.0	0.0	0.0	0.0	o.0	0.3	0.1	38.4	2.1	0.1	123.9
Table (02 11-1	: :	0.0	0.0	0.0	ю -	5 (3.7	0.1	0.0	8.01	io.	0.0	33.0 34.0 34.0 34.0 34.0 34.0 34.0 34.0	0.0	13.3	10.1	ात १५	157.4	4.7	2.0	258.5	29. BREBES 30.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	ප ර	0.0	0 0	0.0	0.0	0.0	42.2	0.0	0.0	3.0	0.0	0.0	45.2
Freight OD 1	0.0	1.4 R4K	2. PANDEGLANG	3. RANGKASBITUNG	1~19 IABITABEK	20.PRUFAKARTA	21.CIKAMPEK	22. PEGADENBARI	23.SUKABUMI	24.CLANIUR	25.84NDI W.	26. IAT BARANG	27. JATIWANGI	28.CTREBON	29. BREBES	30.84XJ4R	31.SEMARANG	32. YOCYAKARTA	33.SURABAYA	34.MADIUN	35. ENBER	7074	 0 26	1 MERAK	2. PANDEGLANG	3. RANGKASBITUNG	4~19. JABOTABEK	20. PRUWAKARTA	21.CIKAMPEK	22. PECADENBARU	23. SUKABUMI	24.CL4NIUR	25. BANDLING	26. JATIBARANG	27. JATIWANGI	28.CIREBON	29.8REBES	30.8ANJAR	31. SEMARANG	32. YOCYAKARTA	33 SURABAYA	34. MADIUN	35 JEMBER	TOTAL

ton		
11,000 CIREBON 6.00 1,392.6 0.0 0.0 0.0 0.0 384.1 2.043.2 97.8	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
(Unit: MINA 28: 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.	00000000000000000000000000000000000000	
ities] (MISAR 27.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 120.3 180.3	1,389 0.00 0.00 0.00 1,680 1,280 1,280 1,44 4,44	17.17.27 17.17.
Commodities BANDUNG 26. JATIBAR 65.0 0.0 34.4 0.0 2.014.0 0.0 453.8 0.0 345.4 0.0 389.5 0.0 81.7 0.0 65.2 0.0 82.6 0.0 84.8 0.0 84.8 0.0 86.1 150.3		86.23 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0
AN JUR 25.1 AN JUR 25.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		1.858.0000000000000000000000000000000000
SUKABUR 24.CIL 14.1 14.3 16.2 16.2 39.6 0.0 0.0 221.4 0.0 0.0	1 [.] <u>- </u>	1,347.0 0.0 0.0 0.0 0.0 0.0 0.0 1,826.0 1,826.0 1,826.0 1,826.0 1,826.0 1,826.0 1,826.0 1,826.0
PEGADEN 23. SUKRBUM O.0 O.0 O.0 O.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 1,062.7 1,062.7 32.Y00YAKA 33	871.5 8.2.2 8.2.2 9.0.0 1.1.0 1.0
Without CIKAMPE 22.PE 0.0 157.3 157.3 156.5 0.0 85.6 0.0 0.0 0.0 0.0		1,206.3 20.0 20.0 2,38 2,38 2,38 2,38 2,38 2,38 2,38 2,38
(1992) 20. PRUMAKA 21 0.0 0.0 2, 248.0 4.8 4.8 225.7 225.7 225.4 573.6 0.0 0.0 0.0	88.0 0.0 0.0 2.4 0.0 3.157.4 80.8ANJAR 31 0.0	973.00.00.00.00.00.00.00.00.00.00.00.00.00
Table 11-19 24 00.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0		400 17 00 2 2 2 0 4 0 0 0 8 0 0 0 0 0 0 0 0 0 0 0 0 0 0
OD D STATECK STABER STA	D D PNC	4~19.1ABOTABEK 20. PRIMAKATA 21.CI KAMPEK 21.CI KAMPEK 23.CI KAMPEK 23.SIKABUMI 24.CI AI JUR 25.BANDUNG 25.BANDUNG 27.AT I BARANG 27.AT I BARANG 28.CI REBON 30.BAN JAR 31.SEPRES 30.BAN JAR 32.SIRABAYA 33.SIRABAYA 34.HADIUN 35.JEMBER 74.HADIUN

| Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | Column | C Freight OD Table

٥	29.BREBES	30.8ANJAR 31	. SEMARAN	OGYAKA 3	32. YOCYAKA 33. SURABAY 34. NADIUM		35. JEMBER	TOTAL
. MERAK	0.0	0.0	0.0	0	0.1	0.0	0.0	0.1
2. PANDEGLANG	0.0		0.0	0.0	0.0	0.0	0.0	0.0
. RANGKASBITUNG	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
JABOTABEK	0.0	0.0	8,5	0	88.5	0.0	0.0	77.0
20. PRUMAKARTA	0.0		0.0	0	0.0	0.0	00	0.0
1.C!KAMPEK	0.0		0.0	0.0	0.0	0.0	0.0	0-0
2. PEGADENBARU	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0
3.SUKABUMI	0.0		0.0	0.0	0.0	0.0	0.0	0.0
24 CLAN JUR	0.0		0.0	0.0	0.0	0.0	0.0	0.0
SSS	0.0		0.0	0.0	0.0	0.0	0.0	0.0
1 BARANG	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
27. JATIWANG!	0.0		0.0	0	0.0	0.0	0.0	0.0
28.CIREBON	0.0		0.0	0	0.0	00	0.0	0.0
29. BREBES	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0
30.BANJAR	0.0		0.0	00	0.0	0.0	0.0	0.0
SEMARANG	0.0		0.0	0.0	0.8	0.0	4.1	10.1
32. YOGYAKARTA	0.0		0.0	0.0	0.0	0.0	0.0	0.0
33.SURABAYA	0.0		0.0	0.0	0.0	0.0	1.1	108.6
34. MADIUN	0.0		0.0	0.0	0.0	0.0	0.0	0.0
35. JEMBER	0.0	0.0	0.0	0	0.0	0.0	0.0	17.1
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