

7 The Towns

The towns of Irian Jaya have grown very rapidly in recent years (see Table 18). Rising government expenditures have been the main source of growth, although provision of services for major enclave investments has been very important in Sorong. Accompanying growth in employment generated by government expenditures, development of labour-intensive service and small-scale manufacturing industries has increased considerably the ratio of non-official to official employment.

Table 18 Populations of five major towns, 1961 and 1971

	1961	1971 ^a
Jayapura	14,500 ^a	35,000
Manokwari	11,500	17,000
Biak	10,600	24,000
Merauke	6100	10,000
Sorong	5900	20,000

^a Estimates.

Sources: *Report on Netherlands New Guinea* for the year 1961. For 1971 the figures for Jayapura and Biak are taken directly from Kantor Sensus dan Statistik, Propinsi Irian Barat, *Sensus Penduduk 1971*. The estimates for Manokwari and Sorong are imputed from the *Distrik* data published in *Sensus Penduduk 1971* in conjunction with more detailed information in the mimeoed publication, Kepala Kantor Sensus dan Statistik, *Data^a Umum Penduduk Propinsi Irian Barat, Jayapura, 1969*. The Merauke estimate is derived from census data and discussions with residents and officials. The Jayapura figure is slightly misleading, since it excludes nearly 10,000 persons in the nearby urban centre of Abepura.

As suggested in chapter 4, a large proportion of immigrants have arrived without sponsorship from South Sulawesi and other parts of eastern Indonesia. Although the settlers have come mainly to provide services for public servants or to work on government development projects, the proportion of the urban population directly employed by the government is not large. The proportion is highest in Jayapura where the 4600 civil servants, nearly one-third of the provincial total, accounted for over 13 per cent of the total

urban population. By contrast there were only 1000 government employees in each of the *kabupaten* of Biak, Merauke, Sorong and Manokwari and closer to 500 in the other *kabupaten*. Official figures on non-government employment exclude many important activities and province-wide data is of little value due to serious inconsistencies.

In the towns of the north and west the 'newcomers' (*pendatang*) controlled the greatest part of small-scale trade and urban transport. They held most of the places in the urban markets. Newcomers also held the majority of labouring and artisan jobs in road construction and building. The migrants have been responsible for development of many new labour-intensive economic activities: pit-sawn production of timber, tailoring, cigarette sales from small stalls and other new urban services. Pit-sawn timber has provided strong competition for the machine sawmills and, despite Forestry Department attempts to control this activity, accounts for the major part of the urban timber supply.¹ Similarly, the night markets in Jayapura, Biak and Sorong and the stalls have reduced the turnover of several established import-oriented stores run by Chinese.

The immigrants did not occupy a high proportion of labouring jobs in the towns of the south, as might be expected from the slower growth in demand for wage labour and much lower wage rates in these areas. Instead they were concentrated in employment with an entrepreneurial content; small-scale trading, commercial fishing and pit-sawn production of timber. In these activities there seemed to be a greater tendency to employ Irianese labourers than in the northern towns. Owing to the limited opportunities for wage labour in the highlands much smaller numbers of newcomers had taken up similar positions. In Wamena they ran the small number of kiosks selling consumer goods.

Manufacturing employment has never been large. The total has probably increased since 1962 and its composition has changed considerably. Small establishments produced bread, biscuits, coconut oil, soap and lemonade under the Dutch and continued production through the scarcities of the mid-1960s. Since then, competition from inter-island and international imports, rising fuel and electricity costs and shortages of raw materials have created severe problems for these firms.²

¹ The forestry service owns sawmills in Jayapura, Sorong, Nabire and Serui. Through its control of forest exploitation licences it is able to restrict production of the pit-sawn operators when competition with its own mills becomes too strong. The management of the Fundwi sawmill near Jayapura has also supported restrictions on production of hand-sawn timber.

² PT Ramoi, a relatively large import-export and retail firm in Sorong, has ceased

But declines in output and employment in these activities have been compensated by increased employment in other manufacturing, especially building materials and clothes. Brick and tile production expanded several fold between 1967 and 1972, encouraged by the Department of Small Industries, the Fundwi small industries expert and, in Merauke and the highlands, the Catholic Mission. Expansion of brick production has been especially important in Biak, Nabire, Manokwari and Serui. A co-operative opened by the Mission at Pikke has been supplying bricks and lime to Wamena and operating at a profit. The Pacific Nickel contractors are said to favour house construction with clay bricks and this could lead to vastly increased brick production in the vicinity of its operations.

Casual observation suggests that unemployment is probably less a problem in Jayapura, Manokwari and Sorong than in towns in other parts of Indonesia. The number of unemployed registered at the manpower offices in April 1972 was relatively greater in Biak (900) with its overpopulated hinterland, Merauke (over 300) and Fak-Fak (over 300) than in other towns.

A considerable proportion of development expenditure has aimed directly at improvement of urban services. The latter expenditure has had a very uneven effect, with very substantial improvements in the quality of many services in Jayapura, significant changes in Biak, Manokwari and Sorong and little visible effect in the towns of the south. Provision of basic facilities such as roads, electricity and water is only just beginning in the highlands towns.

After seven years of deterioration roads have been upgraded in all northern towns since 1969. Public and private passenger transport services now provide regular links within the northern towns. Fundwi supplied ten buses to the provincial government for use in Jayapura and one each to Biak and Merauke. Buses cater mainly for school children and other regular travellers at peak hours in Jayapura. A more important development in Jayapura, Biak, Manokwari and Sorong is the recent provision of transport services by privately owned mini-buses and kombis which are run by immigrants from Maluku and Sulawesi and provide more frequent and flexible services. They numbered thirty-six in Sorong in mid-1972 and several times this number were operating in Jayapura.

Urban electricity supply has been given high priority in both the Fundwi and Pelita programs. Under the Fundwi program over \$1 million plus Rp 122

production of bread, noodles and lemonade. Government-run bread, coconut oil and lemonade factories in Biak, and lemonade, noodles and soya sauce producers in Manokwari have met similar fates.

million in counterpart funds have been allocated for the repair of twelve of the fourteen existing power stations and for provision of new generators for Serui and Nabire. The Pelita program provides Rp 350 million for establishing diesel stations at Sarimi, Sentani, Jayapura and Merauke and for transmission equipment.

As a result of these efforts, generation of electricity in the province by the national electricity authority (PLN XV) rose by 25 per cent to 7.5 million kilowatt hours in 1971, exceeding levels in the early 1960s for the first time. Jayapura accounted for over 40 per cent of the total and Sorong and Biak for a further 40 per cent. But one-third of the 9800 kilowatt total generating capacity was still out of order in January 1972. By 1972 electricity services covered 24 hours in the major towns, but there was no surplus capacity to allow repairs and maintenance.³ When a diesel generator broke down in Jayapura in the second half of 1972 an alternating day-on day-off supply schedule was introduced. Unreliability of supplies has caused some consumers to establish private generators. Further improvements are necessary if PLN supplies are to be relied upon for large-scale refrigeration plants such as those required for major fish processing operations in Sorong or Jayapura.

The Asian Development Bank has chosen electricity as a possible field for investment and its consultants have surveyed supply and market factors in Jayapura and Biak. They suggest that Jayapura requires an additional 2000 kilowatt capacity by 1974, and that a further 8000 kilowatts required by 1981 could be supplied from hydro-electric plants on Lake Sentani. Biak is said to need an additional 1500 kilowatts by 1981 which could be provided by rehabilitated machines and two new 500 kilowatt diesel plants.⁴

There is little reliable data on other urban services. Housing presents serious problems in Jayapura, where shortage of accommodation for officials and technicians has held up some programs and where hastily constructed shanties house a large part of the immigrant population. Water supply is unreliable in several towns⁵ and growth in the town of Merauke will be choked unless large investments in water supply are made. Fundwi has undertaken to restore old diesel water pumps at Sorong, Merauke and Kaimana

³ PLN Unit XV Jayapura, *Kelistrikan di Irian Barat*, May 1972.

⁴ The ADB has decided recently to allocate \$5 million to these projects, commencing in April 1973. The ADB also suggested that the PLN could co-operate to provide an additional 120 kilowatt capacity for the PKN timber company by 1977. See Tata Consulting Engineers, *Laporan Untuk ADB* (translation), Bombay, Feb. 1972.

⁵ Lack of regular water supplies was one of the major reasons for the closing down of a large lemonade factory in Sorong.

and Pelita has provided Rp 120.5 million for rehabilitation of reticulation pipes, mainly in Jayapura. Pelita also provides for expenditure of Rp 57 million on town drainage in Merauke, Jayapura, Sorong and Fak-Fak.

Of the established towns, only Merauke appears to have a hinterland capable of supporting large, export-orientated agricultural development. The rich agricultural lands in the Manokwari hinterland are too small to support agricultural projects of a significant size. But to be successful, development of Merauke's hinterland would require simultaneous investments in harbour facilities and other services in Merauke, in international and river shipping, in communications, and in agricultural and livestock production on the banks of the Digul and Maro Rivers. The total investment required would be large and the co-ordination problems complex.

Table 19 Prices of selected commodities in Irian Jaya and other Indonesian towns, March-April 1972^a (Rp)

	Javanese Cities		Outer Island Towns	
	Jogjakarta	Jakarta	Menado	Banjarmasin
	Wheat flour (kg)	60-5	69	58
Rice (kg)	30-5	31-4	40-3	40-6
Salt fish (kg)	130-40	202	175-200	250-75
Sugar (kg)	90-975	98-106	110-15	100-3
Salt (piece)	15	15	20	15-18
Kerosene (botol)	17	17-25	22	18-22
Cement (sack)	935-1017 ^c	625-50 ^b	831-850 ^b	1000-1500 ^c

B. Irian Jaya Towns

	North Coast		South Coast	Highlands
	Jayapura	Sorong	Merauke	Wamena
Wheat flour (kg)	n.a.	100	113	n.a.
Rice (kg)	38	38	38	38
Salt fish (kg)	250-300	245-378	283	n.a.
Sugar (kg)	133	120	n.a.	400
Salt (piece)	38	n.a.	n.a.	100
Kerosene (botol)	28	26	47	n.a.
Cement (sack)	1417 ^c	1293 ^b	n.a.	3000+

^a Adjustments have been made for difference of quality.

^b Cement ex Asano.

^c Cement ex Gresik.

Sources: BPS, *Indikator Ekonomi*, April-May 1972; Perwakilan Perdagangan di Biak, Merauke, Jayapura, *Daftar Harga Pasar*, April-May 1972. Information for Wamena was gained from officials and shopkeepers.

The high administrative costs would work against the success of such a program, but the extreme poverty of Merauke and its hinterland provides an additional reason for exploring the possibilities.

There is little trade between the towns and so little specialisation in production for a provincial market. High transport costs and poor communications cause considerable variation in prices within the province and in relation to other Indonesian provinces.

Table 20 Prices of selected commodities in Jakarta and Irian Jaya towns, April-May 1972 (Rp)

Commodity	Irian Jaya				
	Jakarta	North Coast		South Coast	Highlands
		Jayapura	Sorong	Merauke	Wamena
Beef (kg)	378-80	945	756	478	n.a.
Pork (kg)	n.a.	756	662	n.a.	n.a.
Sardines (tin)	186-9	133	140	151	250
Tobacco (pkt)	n.a.	125-33	150	161	200
Kretek cigarettes (pkt) ^a	55	70	100	100	100
Hens' eggs	17-18	54-7	28	47	n.a.
Beer	150-200 ^b	100 ^c	100 ^c	n.a.	200 ^c

^a Bentoel.

^b Bottle (local).

^c Can (imported).

Sources: As for Table 19.

Tables 19 and 20 show that Indonesian-made consumer and producer goods – fish, salt, kerosene, kretek cigarettes and cement – are all cheaper in Java than in other outer islands, and are most expensive in Irian Jaya. But some imported goods (e.g. canned fish and beer) are cheaper in Irian Jaya owing to its lower tariff level. Rice was slightly cheaper in Java till mid-1972, with the subsidy merely covering the high transport costs to all Irian Jaya centres. But since then the Java price has risen well above the subsidised Irian Jaya price. Prices were lowest in Sorong among Irian Jaya ports and most prices were higher in the south than in the northern ports. But meat was cheaper in Merauke, where the availability of fresh deer meat kept prices at about Jakarta levels. The high cost of air freight makes all commodities except kretek cigarettes and subsidised rice substantially more expensive in the highlands.

Price variations among Irian Jaya urban centres reflect the strong, natural impediments to intra-provincial trade, especially between the highlands and the coast and between the north and south coasts. Nevertheless, intra-provincial integration, especially across the north, should progress with growth of the towns: increased trade volumes lower unit transport costs and allow development of new industries supplying provincial markets. The urban growth that would support diversification of the town economies into industries supplying provincial markets depends initially on continued growth in government expenditure or in processing and servicing for new export industries. Several towns could become processing centres for fish, timber and other raw materials and all northern towns are likely to become suppliers of materials to the Gag Island nickel project. Sorong will be transformed by growth associated with adjacent resource developments into perhaps the largest town in eastern Indonesia. But these are future prospects, and the following chapter underlines the limited nature of recent resource investments' contributions to the provincial economy.

8 The Enclaves

Irian Jaya is not richly endowed with agricultural land and transport costs are very high, so that the province has been by-passed by the expansion of capitalist agriculture that has occurred in other parts of the tropical world. But world forest, mineral and fish resources have been under severe pressure and rising prices have made production profitable in difficult locations like Irian Jaya. These market factors have combined with reduction of political uncertainty to spur the growth of new resource-based industries.

Oil and mining

Despite the cessation of exploration by the Nederlandsch Nieuw Guinee Petroleum Maatschappij several years before the transfer of sovereignty and the decline in annual production to less than 500,000 barrels per annum, considerable recent interest has been shown in oil exploration and the early drilling has produced promising results. A consortium led by Petromer Trend began drilling in the Manokwari-Sorong region in September 1972 following an extensive geophysical survey. Their first well yielded 1680 barrels per day and a subsequent strike from a well yielding 21,000 suggests that a rich field may have been discovered.¹ Several other companies began exploration over a wide area in Irian Jaya in 1972 and 1973 and one further strike has been made close to an old Seram field.²

Little is known about the geology of much of the province. However, several promising non-ferrous mineral prospects have been discovered allowing two large projects to begin. In its 1968 annual report the Freeport Sulphur Company announced that its subsidiary Freeport Indonesia had

¹ Antara Financial and Economic News, 18 October 1972, p. 3; 3 November 1972, p. 1; 12 February 1973, p. 2.

² The strike was made by Gulf and Western. Other exploration is being undertaken by Tesoro Oil (contracting for Wendel Phillips) in the Yapen-Sarmi area, a Phillips/Superior consortium off the south coast, AGIP off Sorong and Continental Oil on shore near Merauke (Dinas Pertambangan, Jayapura).