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CHAPTER 29

THE TERRITORIES OF AUSTRALIA

The internal Territories of Australia are the Northern Territory and the Australian Capital Territory. External Territories under the control of Australia are: Norfolk Island; the Territory of Papua (formerly British New Guinea); the Territory of New Guinea (under Trusteeship Agreement with the United Nations); the Territory of Heard and McDonald Islands; the Australian Antarctic Territory; the Territory of Cocos (Keeling) Islands; and the Territory of Christmas Island. There is also the Territory of Ashmore and Cartier Islands, deemed to form part of the Northern Territory.

Information on all except Ashmore and Cartier Islands is contained in the following pages, and details of the acquisition of all the Territories will be found on pages 5, 22, and 23 of Chapter I. More detailed statistics and additional descriptive matter are to be found in the Annual Reports of the Administrations of the various Territories and in the *Northern Territory Statistical Summary* and the *Australian Capital Territory Statistical Summary* issued by this Bureau. Statistics for the Northern Territory and the Australian Capital Territory are also included in chapters dealing with particular subjects. The Statistician, Territory of Papua and New Guinea, issues a number of publications containing statistics relative to these two Territories, separate and combined.

Responsibility for the general administration of the Territories of Norfolk Island, Papua, New Guinea, Cocos (Keeling) Islands and Christmas Island is vested with the Commonwealth Department of External Territories; for the Northern Territory (including Ashmore and Cartier Islands) and the Australian Capital Territory with the Department of the Interior; and for Antarctica and Heard and McDonald Islands with the Department of External Affairs. Matters excepted are defence and civil aviation, and, in the Northern Territory and the Australian Capital Territory, public health, justice, education (excluding Aborigines) and the provision of the basic physical services, which are the responsibility of the Department of Health, the Attorney-General's Department, the Department of Education and Science, and the Department of Works, respectively.

THE NORTHERN TERRITORY

General description

Area

Upon the extension of New South Wales westwards to the 129th east meridian in 1825, the Northern Territory was incorporated in that colony, but in 1863 it was annexed by Royal Letters Patent to the province of South Australia. With the adjacent islands, it was transferred to the Commonwealth on 1 January 1911. The total area is 520,280 square miles.

Legislation and administration

On 1 January 1911 the Territory was transferred from South Australia to the Commonwealth. The terms were outlined in Year Book No. 15, page 940. For particulars of the administration up to the *Northern Territory (Administration) Act 1931*, by which it was, for the second time, placed in the hands of an Administrator, see Year Book No. 38 and earlier issues.

The *Northern Territory (Administration) Act 1910-1968* provides for the constitution of a Legislative Council consisting of six official members, three nominated non-official members and eight elected members. (The *Northern Territory (Administration) Act (No. 2) 1968* provides for an alteration of the composition of the Council to six official and eleven elected members from the next elections for the Council which are to be held towards the end of 1968.) A president is elected from among the non-official and elected members. The Council makes ordinances for the Territory, which must be submitted to the Administrator. The Administrator is obliged to reserve Ordinances relating to certain matters, including Crown lands and Aboriginal employment, for the Governor-General's pleasure, but in other cases has a discretionary power either to assent, withhold assent or to return the Ordinance to the Legislative Council with recommended amendments. The Governor-General has power in respect of a reserved ordinance to assent to an ordinance, withhold assent to an ordinance, withhold assent to part of an ordinance, or to recommend to the Administrator any amendments

to the laws of the Territory he considers to be desirable arising out of his consideration of the Ordinance. Money votes may be proposed in the Council only on recommendation by message of the Administrator. The Territory elects one member to the House of Representatives.

Physiography

The Territory is within the torrid zone, with the exception of a strip about 180 miles wide which lies south of the Tropic of Capricorn.

The low flat coastline seldom reaches a height of 100 feet. Sandy beaches and mud flats, thickly fringed with mangroves, prevail. Sandstone, marl and laterite form the occasional cliffy headlands. The sea frontage of more than 1,000 miles is indented by bays and inlets and intersected by numerous rivers, many of which are navigable for considerable distances from their estuaries. The only practicable deep-water port, however, is Darwin.

Inland the country generally is devoid of conspicuous landmarks. From the coast there is a general rise southwards to the vicinity of the seventeenth or eighteenth parallel of south latitude, where the higher lands form the watershed between the rivers that flow northwards to the sea and those that form the scanty supply for the interior systems. Towards the centre of the continent the land over a wide area is of considerable elevation, and there are several mountain ranges, generally with an east and west trend.

Climate, fauna and flora

There are two main climatic divisions, the wet season, November to April, and the dry season, May to October, with uniform and regular changes of weather. Nearly all the rainfall occurs in the summer months. Further particulars appear in Year Book No. 6, page 1116.

The ordinary types of native Australian fauna inhabit the Territory. As elsewhere on the continent, the higher *Theria* are rare, but marsupials, birds, crocodiles, fresh-water tortoises, snakes (mostly non-venomous), and frogs abound. There are many varieties of fresh-water fish and littoral *Mollusca*. Butterflies and beetles are strongly represented. The termite is a pest which is capable of serious damage to wooden buildings unless special preventive measures are taken. A species of the ant builds anthills which sometimes attain great dimensions. Mosquitoes and sandflies are very troublesome, particularly in the wet season. Some types of native fauna are protected. Buffalo formerly existed in large herds, but their number has been reduced by indiscriminate shooting. Buffalo shooting is, however, now controlled by Ordinance.

The vegetation is north Australian in type, but a number of the forms belong to the Malayan and Oceanic regions. In the coastal regions tropical vegetation grows luxuriantly to the water's edge. In the north, cypress pine, bloodwood and paper-bark timbers are now cut and milled for local building purposes. Cypress pine is resistant to termites. On the wide expanses of plain country in the interior there is little vegetation, the principal orders represented being: *Euphorbiaceae*, *Compositae*, *Convolvulaceae*, *Rubiaceae*, *Goodenoviaceae*, *Leguminosae*, *Utricaceae*.

Population

See also the chapters Population and Vital Statistics.

The estimated population of the Northern Territory at 31 December 1967, including Aborigines, was 33,189 males, 27,450 females, 60,639 persons. The Aboriginal population at the census of 30 June 1966 totalled 10,651 males, 10,468 females, 21,119 persons. All Aborigines, by virtue of the *Nationality and Citizenship Act* 1948-1966, are British subjects and Australian citizens. Northern Territory Aborigines are equal at law with all other Northern Territory residents, although a few special privileges exclusive to Aborigines have been retained. The *Social Welfare Ordinance* 1964 which repealed the *Welfare Ordinance* 1953-1963 provides for assistance without control for any person who is socially or economically in need of assistance. Reserves for Aborigines comprise an area of 94,196 square miles.

Production

See also the chapters dealing with particular subjects.

Land tenure

Three-sevenths of the land in the Territory is reserved or unoccupied and unreserved, the remainder, apart from a very small proportion alienated, being held under various forms of lease or licence, which are described in Year Book No. 48, pages 111-12. The following changes should, however, be noted.

Leases to Mission Organisations are now granted under the *Special Purpose Leases Ordinance* 1953-1965 for fixed terms or in perpetuity.

Miscellaneous Leases are now granted in perpetuity for purposes such as a market garden, plantation, orchard, vineyard, poultry farm, piggery, or the like.

Darwin Town Area Leases are granted in perpetuity for business or residential purposes, or both, in the Darwin Town Area.

The chapter Rural Industry of this issue contains statistical information concerning areas occupied under various forms of tenure.

Agriculture

Until the 1967-68 season, commercial agricultural production was confined to vegetables and small-scale fruit production for local consumption. The introduction of grain sorghum production on a commercial basis has thrown new emphasis on the development of agriculture. Townsville lucerne seed production has grown considerably and has become an important contributor to the income of many small landholders.

Information concerning scientific surveys (commenced in 1946), conducted by the Commonwealth Scientific and Industrial Research Organization to determine more accurately the potentialities of the Northern Territory, and the resulting establishment of an agricultural research station at Katherine and experimental farms at Katherine and Berrimah (near Darwin), is given in Year Book No. 51, page 101, and in earlier issues. Information is given also on the establishment of rice research stations and investigational work carried out, and on subsequent rice crop commercial scale operations. The appointment by the Minister for Territories in 1959 of an expert committee to carry out investigations relative to agricultural settlement in the Territory and subsequent developments are also referred to.

NORTHERN TERRITORY: AREA AND PRODUCTION OF CROPS 1962-63 TO 1966-67

<i>Crop</i>	1962-63	1963-64	1964-65	1965-66	1966-67	
	AREA(a) (acres)					
Fruit—Bananas	35	43	28	20	29	
Pineapples	11	23	19	12	17	
Other	90	83	83	78	87	
<i>Total, fruit</i>	<i>136</i>	<i>149</i>	<i>130</i>	<i>110</i>	<i>133</i>	
Peanuts	(b)	(b)	(b)	16	(b)	
Sorghum for grain	(b)	527	1,269	1,093	527	
Vegetables for human consumption	149	133	150	144	218	
Other crops(c)	1,465	1,680	2,687	2,699	2,747	
<i>Grand total(a)</i>	<i>1,750</i>	<i>2,489</i>	<i>4,236</i>	<i>4,062</i>	<i>3,625</i>	
	PRODUCTION					
Fruit—Bananas	bushels	1,909	2,174	2,448	1,985	1,684
Pineapples	„	778	943	1,142	990	997
Peanuts	cwt	(d)	(d)	(d)	76	(d)
Sorghum (grain)	bushels	(d)	6,210	10,693	12,018	7,533

(a) Excludes rice; details are not available for publication. (b) Not available for publication, included in Other crops. (c) Principally fodder crops. (d) Not available for publication.

Pastoral industry

The pastoral possibilities of certain parts of the Territory were recognised at an early date, and both cattle and sheep raising have been attempted. For various reasons sheep-raising has not been very successful, but the cattle industry has progressed steadily and is continuing to expand. There is substantial potential for further expansion in the higher rainfall area of the Territory through the introduction of improved pastures and the use of superphosphate.

NORTHERN TERRITORY: LIVESTOCK, JUNE 1963 TO 1967

30 June—	Horses	Cattle	Sheep	Pigs
1963 . . .	38,191	1,086,627	9,469	1,842
1964 . . .	38,391	1,105,161	10,023	1,806
1965 . . .	35,997	1,067,327	9,099	2,182
1966 . . .	36,719	1,031,715	8,875	2,275
1967 . . .	37,638	1,097,114	8,319	2,791

Mining

During 1966 the value of output of the mining and quarrying industry in the Territory, excluding uranium mining, particulars of which are not available for publication, was \$13,283,000.

The mining of copper ores and concentrates continues to be the most important mining activity in terms of value of output, and accounts for more than half the Territory's total recorded production. Prior to 1956, gold minerals, first mined in 1869, accounted for most of the value of output, but from 1956 onwards gold production has remained relatively constant while copper production has increased. The bulk of the copper and gold is obtained by underground mining at Tennant Creek. The government operates a battery in this area to encourage gold mining by smaller operators. A government battery at Mount Wells, about 100 miles south-east of Darwin, also operates for the treatment of cassiterite (tin) and gold ores from that locality.

Work has begun on the development of several other large mineral deposits, and production began in 1967 of bauxite at Gove Peninsula and iron at Frances Creek and Mount Bundy. Lead-zinc deposits at McArthur River and at the Woodcutters prospect near Rum Jungle are also being investigated (see also the chapter Mineral Industry). The large scale mining of manganese ore at Groote Eylandt started in 1966. The value of manganese ore now exceeds the return from gold production.

NORTHERN TERRITORY: MINING AND QUARRYING OPERATIONS, 1963 TO 1966

(Excluding uranium mining)

	1963	1964	1965	1966
Number of mines and quarries	65	84	67	80
Average number of persons employed during whole year (including working proprietors)	457	585	688	814
Salaries and wages paid(a)(b) \$'000	1,590	2,138	2,867	3,361
Total fuel, materials, etc., used	1,394	1,727	2,571	2,212
Value of additions and replacements to fixed assets(a)	388	2,866	5,677	7,282
Value of output (at mine or quarry)	6,480	7,233	8,308	13,283
Value of production(c)	5,086	5,506	5,736	11,070

(a) Excludes mines employing less than four persons. (b) Excludes drawings by working proprietors; the amounts are net after deducting value of explosives sold to employees. (c) Value of output less cost of power, fuel and light and other materials and stores used; depreciation and maintenance costs have not been deducted.

Natural gas was discovered in the Amadeus Basin in 1964. Combined reserves at Mercenie and Palm Valley are estimated at 1,500,000 million cubic feet. Possible ways of utilisation are being investigated. Petroleum exploration is being carried out in the Northern Territory in permit areas covering some 286,000 square miles, of which over one-third is off-shore. The interest in off-shore areas is increasing, and drilling may be started in the near future.

Forestry

In February 1966 the Commonwealth Government approved a four-year programme of forest improvement and development to preserve existing forest areas and increase possible timber resources. The programme includes increasing the rate of planting cypress pine from 350 acres a year to 1,000 acres a year by 1969-70 and also makes provision for the employment and training of Aborigines. In July 1967 the newly formed Forestry Branch of the Northern Territory Administration took over the normal State-type forestry functions from the Forestry and Timber Bureau. At the same time the Bureau established a Regional Research Station at Berrimah to carry out basic forestry research. Local production of log timber, mainly cypress pine, amounted to 1,577,610 super feet in 1965-66, but this was insufficient to meet local requirements, and about 4,973,000 super feet of sawn timber was imported from the States and overseas. During 1967-68 interested companies were issued with feasibility study licences to permit them to conduct pre-investment feasibility studies into the possibility of establishing wood chip industries in the Northern Territory.

Pearl fisheries

In 1884 mother-of-pearl shell was discovered in Darwin harbour. Since then the areas fished have extended to the various banks to seaward and along the Northern Territory coast. Because of competition from plastic materials pearling has declined in recent years, but it is hoped that the commercial production of cultured pearls will succeed in replacing the old pearling industry.

NORTHERN TERRITORY: FISHING AND PEARLING(a), 1962-63 TO 1966-67

	1962-63	1963-64	1964-65	1965-66	1966-67
General fisheries—					
Number of boats engaged	30	30	28	43	60
Number of men employed	68	54	69	120	133
Estimated live weight of fish catch '000lb	331	269	316	376	601
Gross value of fish \$'000	38	45	55	57	73
Pearl-shell fisheries(b)—					
Number of boats engaged	2	2	2	3	3
Number of men employed	22	23	22	37	36
Total take of pearl-shell tons	51.2	4.9	5.4	8.9	16.6
Gross value of pearl-shell \$'000	41	2	2	4	7

(a) Excludes operations of Japanese pearling fleet. (b) Season ended January.

In April 1968 seven companies were approved by the Minister for the Interior and the Minister for Primary Industry to participate in the development of prawn fishing and processing in respect of waters adjacent to the Northern Territory. Three of the companies were joint ventures involving the use of foreign vessels and foreign crews for a limited period. Conditions of the Ministers' approval include the establishment of shore prawn processing plants in the Territory, the replacement of foreign vessels and crews with Australian-built vessels and Australian crews, the location at Darwin of all the processing plants of the joint ventures, and protection, during a limited establishment period, against the development of shore processing plants on parts of the coast other than at Darwin. Provision has also been made for participation in the industry by Aborigines.

Secondary industries

The secondary industries that have so far been established in the Territory have been largely the service industries normally associated with a developing area, such as electrical repairs, printing, motor and marine engineering, plumbing, welding, joinery, sheet metal work, and blue metal crushing. Major industrial investments by private interests in recent years include two breweries, a bitumen plant, and a factory for the manufacture of milk products, ice cream and aerated waters.

NORTHERN TERRITORY: FACTORIES, 1962-63 TO 1966-67

	1962-63	1963-64	1964-65	1965-66	1966-67p
Number of factories(a)	141	139	174	185	187
Average number employed(b)—					
Males	878	978	1,098	1,182	1,308
Females	89	97	112	112	115
Persons employed	967	1,075	1,210	1,294	1,423
Salaries and wages paid(c)—					
Males \$'000	2,146	2,628	3,298	3,666	4,146
Females "	130	142	185	192	203
Total salaries and wages paid "	2,275	2,770	3,483	3,859	4,349
Value of power, fuel, light, etc. used(d)	559	735	865	856	946
Value of materials used(e)	2,876	3,384	4,550	5,497	7,214
Value of production(f)	4,493	4,938	6,654	7,103	7,847
Value of output(g)	7,928	9,057	12,068	13,456	16,007
Value of land and buildings(h)	3,304	4,586	5,668	6,101	6,482
Value of plant and machinery(h)	6,339	6,046	6,103	5,954	6,825

(a) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (b) The aggregate of the average number of persons employed in each factory. Includes working proprietors. Figures represent average employment over the whole year. (c) Excludes drawings by working proprietors. (d) Includes water and lubricating oil. (e) Includes also containers, etc., tools replaced and repairs to plant. (f) Value added in process of manufacture (i.e. value of output less value of materials and fuel used). (g) Value of goods produced including amounts received for repair work and other work done. (h) Depreciated or book value at end of year, including estimated value of rented premises and machinery.

Trade, transport and communication**Trade**

No comprehensive record is kept of the trade between the States and the Territory. The following table shows the values of the principal commodities imported into and exported from the Northern Territory from or to overseas countries during the years 1962-63 to 1966-67.

**NORTHERN TERRITORY: PRINCIPAL OVERSEAS
IMPORTS AND EXPORTS, 1962-63 TO 1966-67**
(S'000)

<i>Commodity</i>	<i>1962-63</i>	<i>1963-64</i>	<i>1964-65</i>	<i>1965-66</i>	<i>1966-67p</i>
IMPORTS					
Petroleum and shale spirit—					
Aviation spirit	184	232	143	158	277
Other (motor spirit)	279	389	339	456	542
Aviation turbine fuel	521	670	1,022	955	615
Other oil(a)	293	310	487	838	893
Sulphur	159	141	71	..	..
Portland cement	157	174	322	410	311
Timber (undressed hardwood)	97	151	214	334	183
Iron and steel manufactures	(b)	(b)	(b)	832	3
Machinery and transport equipment	(b)	(b)	(b)	922	3,914
Other articles	695	870	1,526	691	653
Total imports	2,385	2,937	4,124	5,596	7,391
EXPORTS(c)					
Meats	7	1,546	2,323	3,348	3,422
Hides and skins, raw	153	237	123	61	227
Non-ferrous ores and concentrates	172	..	9	173	2,682
Copper ores and concentrates	242	78	805	2,044	1,512
Pearls	30	180	170	179	34
Other articles	485	433	379	593	1,082
Total exports	1,089	2,474	3,809	6,398	8,959

(a) Includes kerosene, gas oil, diesel oil, residual oil, etc. (b) Included in other articles. (c) Includes domestic exports and re-exports.

Shipping

Shipping services to Darwin are provided from the eastern States by ships of the Australian National Line and from Western Australia by the Western Australian State Shipping Service. Oil tankers carrying supplies of aircraft fuel and other petroleum products, overseas cargo ships and other miscellaneous vessels also visit Darwin. A vessel operated from Brisbane serves settlements on the Gulf of Carpentaria, and some mission-owned boats carry cargo from Darwin to mission stations and government settlements along the coast.

Air services

At 30 June 1967 there were nine government aerodromes and 128 licensed aerodromes in the Territory. The overseas passenger services using the Darwin international airport are Lufthansa (Sydney to Frankfurt); Qantas/B.O.A.C. (Sydney to London); B.O.A.C. (Sydney to Hong Kong); Union de Transports Aeriens (Paris to Los Angeles via Noumea); and T.A.A. on behalf of Transportes Aereos de Timor (Darwin to Baucau). Regular inland services to Darwin, with, in some cases, intermediate stops at Territory centres, are operated by Trans-Australia Airlines and Ansett-A.N.A. (from Adelaide, Melbourne, Sydney and Brisbane), and MacRobertson-Miller Airways Ltd (from Perth and Derby). MacRobertson-Miller Airways Ltd and Connellan Airways Ltd operate a network of air services throughout the Territory, the latter company's base being at Alice Springs. The Royal Flying Doctor Service also operates aircraft, while charter services can be secured at Darwin and Alice Springs.

Railways

The Commonwealth Railways Commissioner operates the Central Australia Railway from Port Augusta in South Australia to Alice Springs over a distance of 822 miles, of which about 200 are in the Northern Territory. The line is standard gauge from Port Augusta to Maree, a distance of 217 miles, and 3ft 6 in from Maree to Alice Springs. The Commissioner also operates the North Australia Railway between Darwin and Birdum on a 3 ft 6 in gauge over a distance of 317 miles. The two inland terminals, Alice Springs and Birdum, are about 630 miles apart and are connected by road transport along the Stuart Highway. Larrimah, on the highway and 6 miles north of Birdum, is the point of trans-shipment for passengers and goods and is, at present, the effective terminal. A road-rail freight service operates between Adelaide and Darwin via Alice Springs.

Roads

The Stuart Highway, 954 miles long, connects Alice Springs with Darwin and runs via Larrimah and Tennant Creek. The Barkly Highway, 403 miles long, connects Mount Isa (Queensland) with Tennant Creek and joins the Stuart Highway some 16 miles north of Tennant Creek. These highways are used for carrying various freights, including cattle, particularly to and from the railheads at Alice Springs, Larrimah and Mount Isa. The routes are used also for overland tourists and travellers from the southern States to Darwin. With the further development of the pastoral and mining industries in the Territory, road trains are now being used on both highways for the export of cattle and ore. Both roads have good water bores and communications. There are now approximately 12,000 miles of roads in the Territory of which 1,640 miles are sealed.

Work on a programme for reconstruction and development of beef cattle roads was commenced in 1961-62. To June 1967 \$29.0 million has been authorised for this work, and actual expenditure to 30 June 1967 was \$10.4 million. The transport of cattle by road is expected to increase the number, quality and value of cattle turned off.

Posts, telegraph, telephones and wireless

Postal communication is maintained by road, rail and air transport between Darwin and the capital cities of Australia. In addition, vessels belonging to the Western Australian State Shipping Service provide a regular service between Fremantle and Darwin. Inland, the northern part of the Territory receives its mail via Darwin or by means of the aerial services, and the southern districts are served via Adelaide.

The overland telegraph line, covering a length of 2,230 miles, runs from Adelaide to Darwin, and links Darwin in telegraphic communication with other parts of the world. Long-distance telephone communication is established between Darwin and the capital cities of Australia, and overseas telephone communication through Sydney or Perth is also available.

Regional national broadcasting stations are situated at Darwin, Alice Springs, Tennant Creek and Katherine, and there is a commercial station at Darwin. The majority of homesteads on pastoral leases are equipped with radio transceivers operated under licence from the Postmaster-General's Department. These stations are in daily communication with Flying Doctor bases situated at Alice Springs (Northern Territory), Wyndham (Western Australia), Broken Hill (New South Wales), and Cloncurry (Queensland), and are used for transmission of radio-telegrams and other communications.

Education

See also the chapter Education, Cultural Activities and Research.

Special Aborigines schools

The social, cultural and educational background of the Aborigines has made necessary the establishment of special schools for them. This is regarded as an interim measure only, and policy is that children are transferred into general community schools as they are judged capable of handling the curriculum. From the beginning of the 1956 school year control of these schools passed from the Commonwealth Office of Education to the Welfare Branch of the Administration. Thirty-three schools had been established up to the middle of the year 1967. A special syllabus and series of readers have been prepared for use in these schools. Free mid-day meals, milk, and school clothes are supplied to the pupils. In addition to the thirty-three Administration schools, eleven schools for Aboriginal children were conducted by missions with the aid of Government subsidies. Also, four schools aided by Government subsidies had been established on pastoral properties. Twelve pre-school centres for Aboriginal children are operated by the Administration and three others are organised by the missions.

Community schools

Schools other than the special schools in the Territory are conducted for the Commonwealth on an agreed basis of reimbursement by the South Australian Department of Education, which is represented in Darwin by a Director, Northern Territory Schools. Since February 1968 the Commonwealth Minister of Education and Science has been responsible for all community education in the Northern Territory. His Department is represented in Darwin by an officer holding the rank of Director. On 30 June 1967 there were twenty-four government schools in the Territory, with 6,687 pupils, and four non-government schools, with 1,002 pupils, providing instruction according to the South Australian curriculum. High schools have been established with classes to Leaving Certificate level at Alice Springs and matriculation level at Darwin.

All children who live more than ten miles from an established school receive an allowance of up to \$320 (\$200 plus \$120 on a graduated scale according to family income) per annum plus fare concessions if they board away from home in order to attend school. Twelve Intermediate exhibitions or ten per cent of the number of candidates, whichever is the greater, are available annually, and carry benefits of \$10. There are also book allowances ranging from \$16 to \$20 per annum for secondary students. Approximately 300 children receive correspondence education under the South Australian Correspondence School system. The radio session 'School of the Air' supplements normal correspondence instruction for certain children in isolated areas.

Fourteen pre-school centres are in operation in the Territory, with an enrolment of 803 pupils. A number of scholarships are offered each year for training as pre-school teachers.

Theoretical training of apprentices

The recognition that technical school training is an extension of workshop training has led to the introduction of day-time classes which apprentices attend without loss of pay. Apprentices are directed by the Apprentices Board to undertake correspondence courses conducted by the Technical Correspondence School of the South Australian Education Department and the Sydney Technical College, these courses covering the work prescribed for the various trades in South Australia and New South Wales.

Aboriginal welfare

The Commonwealth and State Governments have adopted a common policy of assimilation which seeks that all persons of Aboriginal descent will choose to attain a similar manner and standard of living to that of other Australians and live as members of a single Australian community enjoying the same rights and privileges, accepting the same responsibilities and influenced by the same hopes and loyalties as other Australians. Since the commencement of the *Social Welfare Ordinance* 1964 in September 1964, Aborigines in the Northern Territory have been equal at law with all other residents, although some special benefits have been retained for them. An intensive welfare programme to prepare Aborigines for the demands of modern living is being carried out, and fourteen Government settlements and thirteen mission stations have been established, where Aborigines are encouraged to adopt a settled way of life, and health services, particularly child welfare services, education, housing, vocational training, and employment are provided. Aborigines are also encouraged to take part in the social activities of the community.

Finance

Details of receipts and expenditure of the Territory for the years 1962-63 to 1966-67 are shown in the table following. In this table the receipts and expenditure of the Northern Territory have been classified into a National Accounts form. The table covers transactions relating to the Northern Territory in the Commonwealth Consolidated Revenue Fund and the following trust funds: Northern Territory Government Settlements Canteens, Northern Territory Housing Commission, Northern Territory Housing Loans, and Northern Territory Transport. Details of the financial transactions of the Darwin City Council are also incorporated in the table. Revenue derived by the Commonwealth from income taxes, customs duties, etc. levied in the Northern Territory and expenditure by the Commonwealth in the Northern Territory on such items as defence, civil aviation, railways, etc., and payments to residents from the National Welfare Fund are not included.

NORTHERN TERRITORY: RECEIPTS AND EXPENDITURE, 1962-63 TO 1966-67
 (\$'000)

	1962-63	1963-64	1964-65	1965-66	1966-67
RECEIPTS					
Taxation—					
Stamp duties	76	42	42	53	64
Motor registration	163	188	213	237	273
Other	103	362	435	480	275
Interest, rent, etc.	590	694	758	1,370	943
Public enterprises income	114	452	426	801	1,463
Net sale of local and semi-governmental securities	326	418	392	127	44
Other receipts—					
Net charge to Commonwealth budget	27,926	29,426	32,538	38,978	50,542
Other(a)	22	42	-36	-165	325
Total receipts	29,320	31,624	34,768	41,882	53,929
EXPENDITURE					
Net current expenditure on goods and services—					
Law, order and public safety	272	412	460	524	591
Education	844	972	1,223	1,472	1,641
Public health and welfare	5,300	5,994	6,802	6,618	8,002
Other	6,548	7,574	8,406	11,170	12,215
Capital expenditure on new assets and stocks—					
Roads	3,714	3,720	2,950	4,539	4,745
Housing	2,166	2,130	3,850	5,161	2,746
Other	9,632	9,680	10,016	11,789	23,066
Net purchase of existing assets(b)	-48	-122	-114	-328	-72
Cash benefits	180	228	271	300	316
Subsidies	192	264	260	360	265
Interest paid	70	80	112	118	152
Net advances—					
Housing	350	546	110	-141	-96
Other	100	146	422	301	357
Total expenditure	29,320	31,624	34,768	41,882	53,929

(a) Includes movements in cash, investments, etc. (b) Minus sign (-) denotes excess of receipts (from sales) over expenditure on, or purchases of, existing assets, including housing.

THE AUSTRALIAN CAPITAL TERRITORY

General description

The Commonwealth Constitution provides that the Seat of Government of the Commonwealth shall be in the State of New South Wales but distant not less than 100 miles from Sydney. After a number of alternative sites were considered, an area of 911 square miles lying approximately 200 miles south-west of Sydney was transferred to the Commonwealth as from 1 January 1911. A further 28 square miles at Jervis Bay were transferred as from 4 September 1915 to serve as a port for the Territory.

The primary responsibility for administering the Australian Capital Territory lies with the Department of the Interior, whose functions include housing, police, and municipal services. Education, public health, justice and the provision of basic physical services, including water supply, sewerage and roads, are the responsibility of the Departments of Education and Science, Health, Attorney-General's, and Works. The National Capital Development Commission has the responsibility for the planning and development of the Canberra city area.

The Australian Capital Territory Advisory Council was established in 1930. It has eight elected members and a representative from each of the Departments of Interior, Works, and Health, and the National Capital Development Commission. The Council advises the Minister for the Interior on matters affecting the Australian Capital Territory. Ordinances are submitted in draft form to the Council for advice and comment before being implemented.

At the census of 30 June 1966 the population of the Australian Capital Territory was 96,013, made up of 92,308 in the Canberra metropolitan area and 3,705 in rural areas (including Jervis Bay). The estimated population of the Territory at 31 December 1967 was 55,867 males and 52,309 females, 108,176 persons. *See also* the chapters Population and Vital Statistics.

National Capital Development Commission

The *National Capital Development Commission Act 1957-60* provides for a Commission to undertake and carry out the planning, development and construction of the City of Canberra as the National Capital of the Commonwealth. The year 1966-67 was the ninth year of the Commission's operations. Construction work was carried out by means of agency arrangements with the Department of Works and private consultants. Details of the expenditure by the Commission in each year from 1962-63 to 1966-67 are included in the table on page 1188. Total expenditure in 1966-67 was \$41.4 million, comprising national works \$2.6m, Commonwealth offices \$5.2m, Territory works \$24.3m, land development \$6.4m, city works \$1.7m, and others \$1.2m.

The following major works were completed during 1967 by the Commission and its agents: Anzac Park West Office Building, The Treasury Building Stages 1 and 2, Forestry Research Institute, Woden Valley High School, Telopea Park High School Extensions, Macquarie Primary School, Pearce Primary School, Torrens Primary School, Mount Stromlo Water Treatment Works, Belconnen Trunk Sewer, Hindmarsh Drive Stage 1, Woden Parkway Stage 1, Airport Road, Paddy's River Road, and Commonwealth Gardens Stage 1.

Works under construction at the beginning of 1968 included the following projects: Corin Dam, Bendora gravity main, National Library, The Treasury Building Stage 3, Russell Building No. 9, Phillip Offices, Tariff Board Extensions, Barton Hostel, Dickson Traffic Centre, Aranda High School, Dickson High School Extensions, Mawson Primary School, Aranda Primary School, Cook Primary School, Parkes Place Development Stage 1, Woden Town Centre—Services, Woden Parkway Stage 2, and Belconnen Way.

Works and services

Housing

Until the period following the 1939-45 War most houses and flats in Canberra were built and rented by the Department of the Interior. More recently, an increasing number of houses and flats have been built by private enterprise, and as a result the proportion of houses and flats in Canberra occupied by tenants of the Department of the Interior has fallen from 81.7 per cent of total occupied houses and flats in 1954 to 58.3 per cent in 1961 and 39.0 per cent in 1966. Although the bulk of rented accommodation is provided by public authorities and will continue thus in the foreseeable future, there has been a considerable increase in the proportion of home ownership in Canberra, since 1954. The proportion of houses and flats owned or being purchased by instalments has risen from 17.5 per cent in 1954 to 28.3 per cent in 1961 and 46.2 per cent in 1966. In June 1966, 39.7 per cent of the total occupied dwellings in Canberra were owned by the Department of the Interior, and in June 1967, 37.7 per cent. Home building activity in the Woden Valley, south-west of the former city area, has continued to expand, and at June 1967 there were 4,682 occupied dwellings in this area. *See also* the chapter Housing and Building.

Municipal services

Canberra has been developed as a garden city. More than three million trees and many acres of lawns have been planted since 1927. The development of new areas of parkland and the maintenance of existing tree and lawn areas is the responsibility of the Parks and Gardens Section of the Department of the Interior. Municipal services are also provided by the Department of the Interior.

At 30 June 1967, 25,557 meters were connected to the city water supply, drawn through nine service reservoirs from two storages on the Cotter River with a total capacity of nearly 3,500 million gallons. A third storage dam site is currently being developed. In 1966-67 some 5,156 million gallons of water were consumed in Canberra, and in addition the system supplied 406 million gallons to

Queanbeyan in New South Wales. Treatment works at Weston Creek dispose of Canberra sewage. At 30 June 1967, 400 miles of sewers, 6½ miles of rising sewerage mains and 421 miles of storm water drains were laid.

Department of Works

Apart from the work it carries out for the National Capital Development Commission, the Department of Works acts as design and supervision agent for other Commonwealth departments and instrumentalities. Total expenditure during 1966-67 on all operations amounted to \$10.6 million (\$11.2 million in 1965-66), comprising: building works—housing \$36,989, other building \$4,561,856; engineering works \$1,078,691; repairs and maintenance—building \$2,251,599, engineering \$2,331,081, purchase of plant \$324,920. A number of major works in addition to those on behalf of the National Capital Development Commission were completed during 1966-67, and others were under construction at the end of that year.

Production

See also the chapters dealing with particular subjects.

Lands

Reference has been made in earlier issues of the Year Book to the general conditions of land tenure in the Territory and to the area of alienated and leased land, and the chapter Rural Industry of this issue contains statistical information on the subject. (See also § 1. Canberra: Fifty Years of Development, page 123 of Year Book No. 49.)

Under the *Seat of Government (Administration) Act* 1910 Crown lands in the Territory may not be sold or disposed of for any estate in freehold except in pursuance of some contract entered into before the commencement of the Act. Leases of land in the city area are granted under the *City Area Leases Ordinance* 1936-1961, and leases of other lands under the *Leases Ordinance* 1918-1958. Land is also leased for various purposes in the city area under the *Church Lands Leases Ordinance* 1924-1932 and the *Leases (Special Purposes) Ordinance* 1925-1943, while one lease under the *Church of England Lands Ordinance* 1926 has been granted for church purposes. As considerable portions of the Territory lands are not immediately required in connection with the establishment of the city, large areas have been leased for agricultural or grazing purposes.

The Commonwealth Territory at Jervis Bay, comprising about 28 square miles, was acquired from New South Wales for possible use as a port in connection with the Australian Capital Territory. A portion of the area is occupied by the Royal Australian Naval College, H.M.A.S. *Creswell*, and a Royal Australian Navy airfield. At the southern end of the Jervis Bay Territory there are a limited number of holiday leases. Apart from some experimental planting and soil conservation activities, the area is being maintained for possible Commonwealth requirements.

Forestry

Forestry operations in the Territory were begun on Mount Stromlo in 1915. Plantings up to 1925 were chiefly decorative, but since then a much wider programme has been undertaken. In 1926 a comprehensive review was made of the Territory's potential for forest development, and a programme for the development of commercial forests was approved. Most of the better native forest has since been placed under management, and, following survey and assessment work, forestry operations, including fire-control, have been extended to 100,000 acres of eucalypt forest in the lower Cotter Catchment Area.

Afforestation work has also been undertaken, and softwood plantations (mainly *Pinus radiata*) have been established at Uriarra, Stromlo-Green Hills, Pierce's Creek, Kowen, Tidbinbilla, Jervis Bay and Boboyan. Experimental plots have been established at Jervis Bay and in the Brindabella Ranges, and soil conservation plantings made at various locations throughout the Territory. The total area of softwood plantations within the Australian Capital Territory at 30 June 1967 was 28,740 acres, of which 26,445 acres were *Pinus radiata*, the balance consisting chiefly of *Pinus ponderosa* and *Pinus nigra*, plus 655 acres at Jervis Bay, mainly *Pinus radiata* and *Pinus elliotii*.

Continued thinning operations have improved all Australian Capital Territory forests so that they now yield a wide variety of products. Board-logs and case timber form the bulk of production, but some poles, fencing timber, and pulpwood are now being produced. The yearly output from pine plantations has increased from 2,500 cubic feet in 1930-31 to 1.5 million cubic feet in 1966-67, valued at \$400,000 delivered at purchasing mills in Canberra. Hardwood log production from Jervis Bay forests during 1966-67 was 41,500 cubic feet valued at approximately \$13,400 at the

purchasers' mill. Log production was restricted to the salvage of logs from areas being prepared for plantations. Up to 30 June 1967 a total of 21.8 million cubic feet of pine logs had been cut from plantations, while hardwood production from the Australian Capital Territory, including Jervis Bay, totalled 4.3 million cubic feet.

Agricultural, pastoral and secondary industries

During 1966-67 the production of the more important items of the agricultural and pastoral industry was: wheat 86,577 bushels; wool 2,454,000 lb; whole milk 1,095,000 gallons; meat (carcass weight), fresh 3,720 tons. The numbers of livestock depastured at 31 March 1967 were: horses 661; cattle 13,902; sheep 280,609.

As in the Northern Territory, the secondary industries established in the Australian Capital Territory are largely the service industries associated with the growth of the Territory.

AUSTRALIAN CAPITAL TERRITORY: FACTORIES, 1962-63 TO 1966-67

	1962-63	1963-64	1964-65	1965-66	1966-67
Number of factories(a)	164	170	187	217	238
Average number of employed(b)—					
Males	2,052	2,236	2,634	2,896	2,992
Females	404	458	593	599	639
<i>Persons employed</i>	2,456	2,694	3,227	3,495	3,631
Salaries and wages paid(c)—					
Males \$'000	4,776	5,666	7,854	8,819	9,306
Females „	598	607	848	1,047	1,177
<i>Total salaries and wages paid</i> „	5,374	6,273	8,702	9,866	10,483
Value of power, fuel, etc., used(d)	326	502	644	760	735
Value of materials used(e)	6,922	8,428	11,440	13,349	14,918
Value of production(f)	8,367	11,097	14,060	17,418	18,860
Value of output(g)	15,615	20,026	26,145	31,528	34,514
Value of land and buildings(h)	4,556	11,669	20,583	21,891	22,779
Value of plant and machinery(h)	4,693	5,103	9,682	10,134	10,368

(a) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (b) Average over whole year; includes working proprietors. (c) Excludes amounts drawn by working proprietors. (d) Includes water and lubricating oil. (e) Includes also containers, etc., tools replaced and repairs to plant. (f) Value added in process of manufacture (i.e. value of output less value of materials and fuel used). (g) Value of goods produced including amounts received for repair work and other work done. (h) Depreciated or book values at end of year including estimated value of rented premises and machinery.

Transport and communication

Canberra is connected with the railway system of New South Wales at Queanbeyan by a line 4½ miles long. This line was opened for goods traffic on 25 May 1914 and for passenger traffic on 15 October 1923. Direct or linking services operate between Canberra and Sydney and Melbourne. Two airlines provide several services daily each way on the Sydney-Canberra-Melbourne route. Regular motor-coach services link Canberra with towns in New South Wales, Victoria and South Australia. The total length of roads in the Territory at 30 June 1967 was: bitumen and concrete, 491 miles; gravel, 225 miles; other formed roads, 91 miles; total, 807 miles. There are three radio broadcasting stations in the Territory, 2CY and 2CN of the national broadcasting system and 2CA, a commercial station, and two television stations, ABC Channel 3 of the national broadcasting system and CTC Channel 7, a commercial station.

Social

See also the chapter Education, Cultural Activities and Research.

Education

The *Education Ordinance 1937-1966* provides for the compulsory attendance at school of children between the ages of six and fifteen years. The Commonwealth Department of Education and Science is primarily responsible for the education of children in the Australian Capital Territory. By agreement, however, the New South Wales Department of Education arranges the teaching programme in accordance with its own curriculum and provides the teaching staff. It is reimbursed for expenses incurred.

At 31 December 1967 there were eight public secondary schools in Canberra providing courses proceeding to the Higher School Certificate. Twenty-five schools provided courses for children in infants and primary classes, including one in the Jervis Bay area and three in rural districts. There were also: a school for mentally handicapped children; a school for physically handicapped children, located at Canberra Community Hospital; a school for deaf children, located at the Ainslie Public School; a therapy clinic for children with speech defects; and a clinic for educational guidance. A further three primary schools and one secondary school were scheduled to commence at the beginning of the 1968 school year.

At 31 December 1967 there were seventeen private schools in Canberra. Of these, St Edmund's Christian Brothers' College, the Catholic Girls' High Schools at Braddon and Griffith, the Daramalan College, the Canberra Grammar School (Boys), and the Canberra Church of England Girls' Grammar School provide courses leading to the Higher School Certificate. Three new schools were scheduled to commence at the beginning of the 1968 school year, one school—Marist College, Pearce—to provide courses leading to the Higher School Certificate, and two primary schools.

Thirty-six pre-school centres, including two in the Jervis Bay area and a mobile unit which visits outlying areas, provide pre-school facilities for approximately 2,500 children between the ages of three and five years.

The Canberra Technical College, which follows generally the curriculum set by the New South Wales Department of Technical Education, provides trade, post-trade, certificate, and some hobby courses. In 1967 the Technical College provided instruction in one hundred and three courses in twenty schools. Student enrolments were 5,819.

An area of about 250 acres has been set aside at Acton for the Australian National University. Provision has been made for the University to establish such research schools as may be thought desirable, including a School of Medical Research and Research Schools of Physical Sciences, Social Sciences and Pacific Studies. Provision for undergraduate studies and some post-graduate study is made by the School of General Studies.

Health

The Canberra Community Hospital serves the population of Canberra and surrounding districts. At 30 June 1967 it had 499 beds, an honorary medical staff of 122, 15 salaried medical staff, and a nursing staff of 530. For further information see the chapter Public Health in this Year Book and in Year Book No. 53.

Justice

The Australian Capital Territory has a Supreme Court and a Court of Petty Sessions. There is an Australian Capital Territory Police Force, which at the end of 1967 numbered 236, including 4 policewomen. Of the total, 122 were engaged on general duties, the traffic branch comprised 51, including the specialist water police and accident investigation squads, 37 were engaged in criminal investigation, 23 on prosecuting, 2 in caring for the Police Boys Club, and 1 in the Jervis Bay area. See also the chapter Public Justice.

Finance

In the following table the receipts and expenditure of the Australian Capital Territory have been classified in a National Accounts form. The table covers transactions relating to the Australian Capital Territory in the Commonwealth Consolidated Revenue Fund and the following trust funds: Australian Capital Territory Electricity Supply (1962-63), Australian Capital Territory Forestry, Australian Capital Territory Housing, and Australian Capital Territory Transport. In addition, details of the financial transactions of the following semi-governmental authorities are also covered: Australian Capital Territory Electricity Authority (from 1963-64), Commonwealth Brickworks, National Capital Development Commission, and Canberra Theatre Trust. Revenue derived by the Commonwealth from income taxes, sales tax, etc., levied in the Australian Capital Territory and

expenditure by the Commonwealth in the Australian Capital Territory on such items as defence, civil aviation, railways, etc., and payments to residents from the National Welfare Fund are not included.

AUSTRALIAN CAPITAL TERRITORY: RECEIPTS AND EXPENDITURE
1962-63 TO 1966-67
(\$'000)

	1962-63	1963-64	1964-65	1965-66	1966-67
RECEIPTS					
Taxation—					
Motor registration	408	474	540	604	669
Liquor tax	111	129	146	170	197
Other	239	295	698	199	831
Interest, rent, etc.	716	868	1,256	1,631	1,963
Public enterprises income	3,514	4,718	5,714	6,143	6,776
Net sale of semi-governmental securities	934	768	608	225	533
Other receipts—					
Net charge to Commonwealth budget	33,946	37,342	40,008	46,466	57,696
Other(a)	-82	-660	-514	199	1,952
Total receipts	39,786	43,934	48,456	55,636	70,616
EXPENDITURE					
Net current expenditure on goods and services—					
Law, order and public safety	366	422	528	700	926
Education	2,582	2,972	3,950	4,451	5,254
Public health and welfare	1,600	1,746	2,310	2,992	3,977
Other	3,366	4,566	5,934	6,939	7,689
Capital expenditure on new assets and stocks—					
Education	3,350	3,712	3,956	4,119	4,652
Cultural and recreational facilities	4,112	2,588	2,984	2,690	3,574
Public health and welfare	1,608	2,148	2,584	1,950	1,090
Water supply and sewerage	1,582	920	2,822	3,395	11,625
Roads and bridges	5,932	5,388	6,450	10,156	9,946
Power, fuel and light	1,084	1,256	1,346	1,675	3,188
Housing	7,484	6,602	7,724	8,814	6,637
Other	6,266	12,564	10,572	9,890	8,839
Net purchase of existing assets(b)	-7,902	-11,714	-17,340	-12,326	-7,462
Cash benefits	32	38	50	134	139
Interest paid	140	212	186	257	260
Net advances for housing	8,184	10,514	14,400	9,799	10,281
Total expenditure	39,786	43,934	48,456	55,636	70,616

(a) Includes movements in cash, investments, etc. (b) Minus sign (-) denotes excess of receipts (from sales) over expenditures on, or purchases of, existing assets, including housing.

NORFOLK ISLAND

General description

Norfolk Island, discovered by Captain Cook in 1774, is situated in latitude 29°S., longitude 168° E. approximately. Its total area is approximately 14 square miles, the island being about 5 miles long and 3 miles wide. It is 1,035 miles from Sydney and 660 miles from Auckland. The length of the coast line is 20 miles, and its form that of an irregular ellipse. Except for a portion on the south side and the landing place at Cascade on the northern side, almost inaccessible cliffs rise from the water's edge. The climate is equable, the temperature ranging between 45° and 81°F. with a mean of 68°F. The average annual rainfall is 56 inches.

After serving as a penal station from 1788 to 1813 and from 1825 to 1855, Norfolk Island in 1856 became the home of the remaining descendants of the *Bounty* mutineers. The estimated population at 30 June 1967 was 1,509.

Administration

In 1856 the island was created a distinct and separate settlement under the jurisdiction of New South Wales. In 1896 it was made a dependency under the Governor of that Colony, and finally, by the passage of the *Norfolk Island Act* 1913, it was accepted by the Commonwealth Parliament as a territory of Australia. It is controlled by the Minister for Territories through an Administrator. The Norfolk Island Council is established pursuant to the *Norfolk Island Act* 1957–1966 and is constituted in accordance with the provisions of the *Norfolk Island Council Ordinance* 1960–1964. The Council may consider and tender advice to the Administrator on any matter affecting the peace, order and good government of Norfolk Island, and must be consulted on certain legislative and financial matters. The Council comprises the Administrator as *ex officio* chairman and voting member and eight members elected biennially.

Economic activity

The major economic activities of the island are the tourist trade, primary production, and Government instrumentalities.

Primary industries. The soil on the island is particularly fertile, the climate equable and the rainfall fairly evenly distributed except for a pronounced dry period in November. This enables a wide range of temperate and semi-tropical products to be cultivated. However, the island's comparative isolation presents trading difficulties, and production of bean seed, formerly the major export, has declined rapidly since 1962–63.

Fish abound off the island. In the past a number of ventures have been formed to exploit this resource, but they have been short-lived, mainly because of the lack of a sheltered harbour. A modern whaling station was started on the island in 1955, and production commenced during the second half of 1956. Owing to a marked scarcity of whales after 1961, however, the station was closed down.

An active forestry programme is being carried out to increase the resources of Norfolk Island pine and to introduce suitable types of eucalypts.

Tourists. Regular sea and air services to the island are available for those who seek a quiet holiday in surroundings of beauty and historic interest. There are at present, apart from flats, ten hotels and guest houses (seven of which are licensed), and further accommodation is being built to meet the steadily increasing number of visitors.

Government instrumentalities. A large proportion of the population is employed by Commonwealth Government instrumentalities, namely: Department of Civil Aviation, Norfolk Island Administration, and Department of the Interior (Meteorological Branch). The bulk of the finance for the operation of these instrumentalities is supplied by the Commonwealth Government.

Trade, transport and communication

Imports to Norfolk Island since the 1939–45 War have risen from \$65,000 in 1945–46 to \$2,822,000 in 1966–67. In 1966–67 the major proportion (\$1,804,000 or 64 per cent) came from Australia, while New Zealand and the Pacific Islands supplied \$324,800 or 11.5 per cent. Exports rose from \$18,500 in 1945–46 to \$420,000 in 1960–61, but had declined to \$267,000 by 1966–67, after whaling had ceased in 1962–63. Exports to Australia, the principal market, amounted to \$168,000, while exports to New Zealand and to Pacific Islands amounted to \$95,000. No duties are chargeable on goods imported into Australia from Norfolk Island if the goods are the produce or manufacture of Norfolk Island, shipped direct to Australia, and not goods which if manufactured or produced in Australia would be subject to excise duty.

A shipping service to the island is maintained at approximately six-week intervals from Sydney via Norfolk Island to the New Hebrides and Solomon Islands, and thence back to Brisbane and Sydney. A service linking Sydney and Noumea includes a call at Norfolk Island on the outward voyage about every three weeks. Shipping between the island and New Zealand is infrequent.

A twice-weekly passenger and air freight service between Sydney and Norfolk Island, maintained by Qantas Empire Airways Ltd, extends to New Zealand under charter to Air New Zealand Ltd.

There are approximately fifty miles of motor road on the island. As a substantial section of the population possesses private motor cars, and taxi-cab and bus services are available, transport is almost exclusively by motor vehicle.

A limited telephone service is operated during business hours with 24-hour connections to emergency services. The Overseas Telecommunications Commission provides a radio telegram service to Sydney.

Education

Education is free and compulsory up to the age of fifteen years. The school, which is conducted by the New South Wales Department of Education, conforms to the Australian standard of public education, ranging from kindergarten to the School Certificate examination. The teachers are provided by the New South Wales Education Department, but they are paid by the Norfolk Island Administration. The number of scholars enrolled at 30 June 1967 was 255.

Judiciary

The judicial system of Norfolk Island consists of a Supreme Court and a Court of Petty Sessions. The Supreme Court is the highest judicial authority in the Territory and is a superior court of record with original criminal and civil jurisdiction. The jurisdiction of this Court is exercised by one judge sitting in Court or, to the extent and in the cases provided by or under ordinance, sitting in Chambers. The jurisdiction of the Court of Petty Sessions is exercised by a Chief Magistrate or any three magistrates other than the Chief Magistrate.

Finance

The revenue of the Territory, together with an annual grant from the Commonwealth Government for administrative expenses, is paid to the credit of the Norfolk Island Trust Fund, and advances for administrative and developmental expenses are drawn from the account. The principal items of revenue and expenditure for the five years 1962-63 to 1966-67 were as follows.

NORFOLK ISLAND: REVENUE AND EXPENDITURE, 1962-63 TO 1966-67
(**\$'000**)

	1962-63	1963-64	1964-65	1965-66	1966-67
REVENUE					
Commonwealth subsidy	64	67	67	66	66
Customs duties	36	45	55	85	90
Sale of liquor	26	30	34	41	53
Post office	48	55	55	174	138
All other	23	33	33	41	50
Total revenue	197	232	245	406	397
EXPENDITURE					
Administrative	42	46	55	72	73
Miscellaneous services	28	20	21	22	27
Social expenditure	44	50	68	70	97
Repairs and maintenance	16	17	20	27	66
Capital works and services	46	48	55	57	126
Postal services	15	26	16	33	32
Other business undertakings	6	12	6	9	7
Total expenditure	199	219	241	289	428

PAPUA AND NEW GUINEA

The information under this heading is applicable to both the Territory of Papua and the Trust Territory of New Guinea. For details of the respective Territories *see* pages 1206 (Papua) and 1212 (New Guinea) and following pages. The sections on pages 1190-6 have been prepared by the Director of the Commonwealth Bureau of Meteorology.

General description**Geographical position**

The Territory of Papua and New Guinea includes the Territory of Papua and the Trust Territory of New Guinea. The total area of approximately 180,000 square miles lies in the equatorial zone between latitudes 2° S. and 12° S. and longitudes 141° E. and 156° E. The Territory of Papua comprises south-east New Guinea and also the islands of the Trobriand, Woodlark, D'Entrecasteaux, and

Louisiade groups. The Trust Territory of New Guinea extends from 2° S. to 8° S. and includes north-east New Guinea (also called 'the mainland'), Bismarck Archipelago (New Britain, New Ireland, Lavongai, Admiralty Islands), and Solomon Islands (Bougainville, Buka).

Geographical features

There is a high backbone mountain chain extending generally along the centre of the main island with coastal plains which widen in some areas, particularly in the Fly River Basin. The mountains, which are rugged, rise to 15,000 feet above sea level in some areas; the larger islands mostly have mountain backbones, some rising to about 10,000 feet. In many parts the highlands extend to the coast.

Weather and climate

The climate, particularly the rainfall, over so wide an area as Papua and New Guinea, with its numerous islands and varying elevations, presents many variations. Generally speaking, the climate is hot and humid, except in the highlands where days are mild to warm and nights are cool. Mean temperatures vary little throughout the year, and there are no winter and summer seasons comparable to those of higher latitude.

The predominant seasonal feature of the Territory is the regular alternation between two major air-streams, the south-east trade winds and north-west monsoon. The 'southeast' season prevails approximately from May to October, and the 'northwest' season persists for a shorter period from about December to early April. Two short spells of calm weather occur between these two seasons.

Rainfall

There are great spatial variations in the amount of rainfall received over the Territory of Papua and New Guinea. The variations depend mainly upon the direction and speed of the air streams. These streams are moist, requiring only a small amount of lifting for condensation of water vapour to occur. Topography therefore has a dominating influence on the rainfall distribution.

Average annual rainfall

The table on page 1193 shows the average annual and monthly rainfalls for selected stations in the Territory. It may be seen that the spatial distribution of average annual rainfall varies greatly, being dependent mainly on topography in relation to prevailing winds. The annual averages vary from 39 inches at Port Moresby to 227 inches at Kikori at the head of the Gulf of Papua. There are few rainfall observing stations above 6,000 feet, so that rainfall above that height must generally be estimated. The map facing page 1216 shows the rainfall distribution over the region for the year 1967.

Seasonal distribution of rainfall

Places in Papua such as Port Moresby, where the south-east trade wind does not blow directly onshore, have a dry season during May–October. Places such as Kikori have heavier rainfall during May–October because of the onshore south-east winds. In the Territory of New Guinea, where conditions are more equatorial, rainfall occurs throughout the year, but is heaviest in the November–April period at most places.

Variability of rainfall

There are marked variations from year to year in annual rainfall totals throughout the Territory. At Port Moresby, for example, in forty-two years of record the annual rainfall has varied from 72 inches to 23 inches; at Daru in fifty-two years of record the annual rainfall has varied from 156 inches to 46 inches; and at Madang in thirty-eight years of record the variation has been from 180 inches to 92 inches. The table on page 1194 shows the annual rainfall at Port Moresby and Lae for the years 1946 to 1966 inclusive.

Heavy rainfalls

Highest twenty-four hour rainfall registrations have included 21.60 inches at Pondo Plantation in New Britain and 17.60 inches at Cape Nelson on the east coast of the main island. Twenty-four hour falls greater than 15 inches have been recorded at a number of other stations in the Papua and New Guinea region. The highest twenty-four hour fall recorded in Australia was 36 inches at Crohamhurst, Queensland. All these registrations were for the restricted twenty-four hour period from 9 a.m. to 9 a.m. Higher falls, possibly approaching 30 inches, have probably occurred in the Territory in unrestricted periods of twenty-four consecutive hours.

Temperature

Although the Territory has no summer and winter seasons, it has a wide range in temperature because of elevation differences. For each month the mean daily maximum temperature decreases by about 2° F. and the mean daily minimum temperature by about 4° F. for each 1,000 feet increase in elevation up to 5,000 feet.

A table on page 1194 shows temperature and humidity data for five lowland and two highland stations. Mount Hagen, elevation 5,500 feet, is the highest station for which temperature data are available. However, both day and night temperatures continue to decrease with elevation above this level.

Average seasonal temperature distribution

In the lowland areas there is a difference in temperature pattern between the areas south of the highlands and those to the north. In the south there is a tendency for temperatures to be lower in the May–October period than in the November–April period (e.g. Samarai). In the north there is little difference throughout the year (e.g. Madang). In the highlands, temperatures are appreciably lower than in the lowlands and are slightly lower in the middle of the year than they are at the beginning of the year (e.g. Goroka). The nights are cold in the highlands throughout the year; the mean daily minimum at Mount Hagen for July is 53.6° F.

Extreme temperatures

The highest air temperature recorded at Lae (in seventeen years of record) was 101.7° F. and the lowest was 66.3° F.; at Port Moresby (in twenty-two years of record) the highest was 97.3° F. and the lowest was 57.3° F.; at Mount Hagen (in thirteen years of record) the highest was 88.0° F. and the lowest 35.0° F. The mean daily range of temperature is about 15° F. at lowland stations and 20° F. at highland stations up to 5,000 feet elevation.

Humidity

Humidity is high generally throughout the year. In the lowlands persistently high humidity in association with high temperatures is responsible for the human discomfort experienced. The average index of mean relative humidity for January and July is shown for selected stations in a table on page 1194. This index has been derived from the ratio of the average 9 a.m. vapour pressure to the saturation vapour pressure at the mean temperature. Being thus related to the mean temperature, this value of relative humidity is a good approximation to the daily mean.

In the lowland areas the average index of mean relative humidity (*see* table on page 1194) is in the range 75–85 per cent throughout the year. There is little variation in the index from month to month at any station. This is in contrast with northern Australian localities where the south-east winds of the dry season result in low relative humidities. For example, Darwin's average index of mean relative humidity ranges from 81 per cent in February to 62 per cent in July.

In the highland areas up to 6,000 feet elevation the average index of mean relative humidity is within the range 70–80 per cent throughout the year. The lower temperatures experienced on the highlands relative to the lowlands result in conditions being generally more comfortable in the highlands.

Evaporation

The only evaporation data available are records for Port Moresby. These show that the mean monthly tank evaporation varies from 5-6 inches per month in the early part of the year to 6-7 inches per month in the latter part of the year. The average annual tank evaporation at Port Moresby over an eleven-year period was 73.59 inches. It is probable that evaporation is less than this value in the higher humidity areas.

Sunshine and cloud

Mean daily sunshine hours are recorded for each month at Port Moresby, and the figures show a variation from 6.2 hours per day in February and March to 8.4 hours per day in November. The mean daily amount of sunshine at Port Moresby for the year is 7.0 hours, which is significantly less than Darwin (8.4 hours) but comparable with Brisbane (7.5 hours).

At Port Moresby the mean cloud amount varies from 5.1 eighths per day in May and June to 6.9 eighths in February; at Lae the variation is from 6.1 eighths in May and June to 7.0 eighths in March. The mean daily cloud amounts for the year at Port Moresby and Lae are 5.8 and 6.5 eighths respectively, which are high in comparison with Darwin (3.1).

Winds

As mentioned previously the south-east trade winds prevail from May to October and the north-west monsoonal winds prevail from December to March over most of the region. However, the broad-scale wind pattern may be completely masked by the effects of local topography and land and sea breezes. The mean 9 a.m. and 3 p.m. wind speeds and prevailing directions are shown in the tables on pages 1195-6 for Port Moresby and Lae.

At Port Moresby the mean winds are stronger during the period May-November than during December-April; for example, the 3 p.m. mean wind for August is 15.4 m.p.h. and for March is 7.6 m.p.h. The winds at 3 p.m. are much stronger than at 9 a.m.; for example, for the year the 3 p.m. mean wind is 11.5 m.p.h. and the 9 a.m. mean wind is 4.1 m.p.h. The prevailing direction of the wind is south-east during May-November and north-north-west to south-west during December-April.

At Lae the winds are mainly lighter than at Port Moresby. In the period May-October the winds at Lae are lighter than in the period November-April. The winds at 3 p.m. are greater than at 9 a.m. except in February. The prevailing direction is north-west at 9 a.m. and south-east at 3 p.m. throughout the year.

Storms and cyclones

The Papua and New Guinea region is subject to thunderstorm activity, squall lines, and local storms throughout the year. Severe thunderstorms are frequent in the mountainous areas, but also occur in coastal lowlands. The main tropical cyclone belt lies to the south of the region, but occasionally a tropical cyclone affects the region, causing loss of life and property.

Climatological tables

The averages and extremes for a number of elements recorded at Port Moresby and Lae are given in the tables on pages 1195-6. These tables generally follow the format given for Australian capital cities included in Chapter 2 of this Year Book, the observational data being for available years of record to 1966 inclusive. Some elements included in the Australian capital city tables have been omitted from the tables for Port Moresby and Lae because of the inadequacy of observational records.

TERRITORY OF PAPUA AND NEW GUINEA: AVERAGE MONTHLY AND ANNUAL RAINFALL FOR SELECTED STATIONS(a)
(Inches)

Station (lat., long.)	Years of record	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year
Bwagaia(b) (10° 41' 152° 51')	30	9.82	12.56	10.34	11.14	11.89	9.05	7.35	8.70	9.14	10.10	10.39	8.95	119.43
Daru(b) (9° 04' 143° 12')	52	10.93	10.05	12.74	13.00	8.84	3.91	3.70	2.08	1.64	2.28	4.54	7.93	81.64
Dogura(b) (10° 00' 149° 55')	38	8.69	8.30	8.63	6.03	3.73	3.79	3.10	2.60	3.09	2.75	3.59	4.49	58.79
Gobaragere(b) (9° 50' 47° 45')	33	7.43	6.98	7.85	8.56	4.30	3.49	1.66	2.17	2.37	3.07	5.12	6.88	59.88
Gusoeia(b) (8° 32' 151° 04')	33	15.58	16.45	15.69	14.23	13.04	12.67	12.51	12.33	11.51	9.69	11.37	10.88	155.95
Itikumuma(b) (9° 25' 147° 29')	30	12.92	11.07	14.21	15.30	10.15	7.08	4.88	7.18	7.93	11.27	13.00	13.18	128.17
Kairuku(b) (8° 51' 146° 32')	33	9.20	10.35	8.64	5.33	1.69	1.92	1.15	0.67	1.65	1.66	2.44	5.88	50.58
Kerema(b) (7° 57' 145° 46')	39	9.47	8.34	10.47	11.49	16.71	16.35	13.71	14.26	13.61	11.52	8.46	7.75	142.14
Kikori(b) (7° 25' 144° 15')	39	12.05	12.95	14.10	17.40	29.35	28.14	25.48	22.16	23.74	17.07	13.19	11.50	227.13
Kokoda(b) (8° 58' 147° 43')	31	12.30	14.09	14.30	14.14	9.93	7.06	7.55	9.58	10.17	12.20	16.70	14.16	142.18
Kokopo(c) (4° 20' 152° 15')	30	8.30	7.05	9.05	6.85	4.73	5.13	6.44	6.25	3.94	4.50	6.50	9.18	77.92
Kwikila(b) (9° 44' 147° 44')	35	6.49	5.14	6.46	6.56	3.45	2.28	1.76	1.79	2.24	1.75	2.64	4.19	44.75
Lindenhafen(c) (6° 15' 150° 30')	30	6.66	5.82	6.39	11.23	22.71	31.60	41.00	43.56	31.82	19.32	11.85	7.42	239.38
Madang(c) (5° 13' 145° 47')	38	12.98	12.07	14.96	17.11	14.71	9.70	7.41	5.04	5.91	10.16	14.77	14.59	139.41
Port Moresby(b) (9° 28' 147° 09')	42	6.92	7.56	6.73	4.08	2.56	1.23	1.07	0.63	1.01	1.35	1.87	4.17	39.18
Samarai(b) (10° 37' 150° 40')	39	6.58	7.06	9.77	10.47	11.80	12.44	8.48	8.19	11.06	8.50	7.89	5.40	107.64

(a) With thirty or more years of record to 1964. (b) Papua. (c) New Guinea.

RAINFALL: PORT MORESBY AND LAE, 1946 TO 1966

Year	Port Moresby (Papua)		Lae (New Guinea)	
	Amount	No. of days	Amount	No. of days
	in		in	
1946	61.79	137	(a)168.64	(a)248
1947	40.61	154	180.37	261
1948	45.82	138	179.26	267
1949	43.20	164	174.78	275
1950	47.67	137	158.51	251
1951	45.51	108	191.59	250
1952	54.88	150	165.58	274
1953	36.20	126	197.76	264
1954	46.49	118	173.70	277
1955	39.33	128	155.26	261
1956	56.60	141	122.39	233
1957	51.89	129	238.66	282
1958	46.02	107	190.02	250
1959	41.65	126	185.78	245
1960	34.17	116	167.50	260
1961	42.75	136	193.09	267
1962	43.98	133	182.84	261
1963	58.76	138	165.18	254
1964	55.02	151	163.10	244
1965	40.73	103	175.93	265
1966	41.25	116	206.19	291

(a) Incomplete for July and August.

TERRITORY OF PAPUA AND NEW GUINEA: TEMPERATURE AND RELATIVE HUMIDITY FOR SELECTED STATIONS

Station	Lat.	Long.	Altitude (ft)	Years of record	Temperature °Fahr.				Relative humidity			
					Mean max. Jan.	Mean max. July	Mean min. Jan.	Mean min. July	Av. index of mean Jan. (a)	Av. index of mean July (a)	Mean 3 p.m. Jan.	Mean 3 p.m. July
Daru(b)	9° 04'	143° 12'	26	1940-1966	89.0	82.6	75.2	73.0	84	83	..	..
Goroka(c)	6° 04'	145° 24'	5,200	1952-1966	78.5	76.7	59.0	56.2	75	72	56	52
Kikori(b)	7° 25'	144° 15'	30	1917-1965	90.5	81.4	73.5	71.9	83	91	..	..
Madang(c)	5° 13'	145° 47'	14	1951-1966	86.4	85.2	73.7	72.9	85	87	76	75
Mount Hagen(c)	5° 51'	144° 09'	5,500	1953-1965	76.2	73.8	55.9	53.6	79	80	(d)65	(d)69
Samarai(b)	10° 37'	150° 40'	50	1956-1966	88.3	80.6	76.5	73.3	81	85	74	81
Wewak(c)	3° 35'	143° 40'	15	1956-1966	86.8	86.4	73.4	72.7	83	85	75	74

(a) See text, page 1192, for explanation of this index. (b) Papua. (c) New Guinea. (d) 1955-65.

CLIMATOLOGICAL DATA: PORT MORESBY (PAPUA)

(Jackson's Strip, Lat. 9° 26' S., Long. 147° 13' E., Height above M.S.L. 92 ft)

BAROMETER, WIND, EVAPORATION AND CLOUD

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings (m.bars)	Wind			Prevailing direction		Mean amount evaporation (in)	Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)
		Average miles per hour		Highest gust speed (mph)	9 a.m.	3 p.m.		
		9 a.m.	3 p.m.					
No. of years of observations	21	5	5	15	5	5	11	17
January	1,007.1	3.4	8.3	55	NNW	SW	6.17	6.7
February	1,007.0	3.9	9.3	52	N	SW	5.14	6.9
March	1,007.4	2.6	7.6	49	N	W	5.47	6.7
April	1,008.0	1.7	7.7	40	NNW	SSE	4.92	6.2
May	1,008.5	3.3	10.8	43	SE	SSE	5.43	5.1
June	1,009.7	5.7	13.0	46	SE	SSE	5.46	5.1
July	1,009.9	6.7	14.5	46	SE	SE	5.85	5.3
August	1,009.9	5.8	15.4	47	SE	SSE	6.43	5.5
September	1,009.9	5.3	14.5	46	SE	SSE	6.67	5.5
October	1,009.1	5.3	15.0	46	SSE	SSE	7.52	5.3
November	1,008.0	2.8	12.2	38	SE	SSE	7.53	5.5
December	1,007.0	2.3	9.6	54	NNW	SW	7.00	6.1
Year { Totals							73.59	
Year { Averages	1,008.5	4.1	11.5	..	SE	SSE	..	5.8
Year { Extremes	..	..	..	55	..	..	..	..

(a) Scale 0-8.

TEMPERATURE AND SUNSHINE

Month	Mean temperature (° Fahr.)			Extreme shade temperature (° Fahr.)		Extreme temperature (° Fahr.)	Mean daily hours of sunshine
	Mean max.	Mean min.	Mean	Highest	Lowest		
						Lowest on grass	
No. of years of observations	22	22	22	22	22	11	11
January	89.9	73.3	81.6	97.2 11/64	68.8 27/49	65.3 21/66	6.5
February	89.0	73.2	81.1	97.0 12/47	65.8 17/57	65.4 17/57	6.2
March	89.0	72.9	80.9	95.8 26/46	65.0 23/61	58.0 31/66	6.2
April	88.0	72.7	80.4	93.6 5/46	62.3 11/46	56.6 1/66	6.9
May	87.9	72.6	80.3	92.9 2/64	58.1 28/53	59.0 18/66	7.5
June	86.5	71.4	78.9	93.0 25/58	58.0 23/54	54.0 29/65	6.9
July	86.0	70.7	78.3	92.0 11/64	57.3 8/46	50.8 30/65	6.7
August	86.4	71.3	78.9	92.8 12/58	58.6 14/61	54.0 14/61	6.8
September	87.4	72.2	79.8	94.6 17/65	58.0 10/61	53.0 10/61	6.9
October	89.5	72.9	81.2	95.9 4/65	61.3 11/55	52.2 5/65	7.5
November	90.4	72.8	81.6	97.3 11/65	63.2 7/63	55.0 4/63	8.4
December	90.3	73.4	81.9	96.0 (a)	67.2 1/63	63.0 6/66	7.2
Year { Averages	88.4	72.5	80.4	97.3	57.3	50.8	7.0
Year { Extremes	..	..	..	11/11/65	8/7/46	30/7/65	..

(a) 4/1945 and 26/1959.

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure mean 9 a.m. (m.bars)	Mean relative humidity % at 9 a.m.	Rainfall (inches)				Fog mean no. days	
			Mean mthly	Mean No. of days of rain	Greatest monthly	Least monthly		
								Greatest in one day
No. of years of observations	21	21	22	22	22	22	21	
January	28.0	77	5.96	16	12.69 1963	1.02 1950	2.70 12/46	3.4
February	28.5	81	8.17	18	17.08 1957	2.37 1947	5.54 14/49	3.9
March	28.3	80	7.17	18	17.42 1951	1.11 1950	4.42 16/51	7.3
April	28.8	82	7.12	15	28.65 1946	0.36 1966	12.89 12/46	7.7
May	28.2	79	2.10	8	7.35 1952	0.08 1958	3.02 18/60	7.0
June	26.5	78	1.72	7	12.33 1963	0.00 1957	8.06 5/63	3.7
July	25.2	77	0.75	6	2.75 1949	0.01 1958	1.33 1/52	2.5
August	24.9	74	1.20	7	5.43 1953	0.02 1959	1.94 22/53	2.1
September	25.5	73	1.53	7	13.53 1958	0.00 (a)	5.90 5/58	2.1
October	26.3	69	1.50	7	7.12 1948	0.06 1951	2.13 31/64	2.5
November	26.6	68	2.91	8	9.22 1952	0.00 1965	3.56 29/54	2.6
December	27.7	73	6.26	14	10.57 1954	1.02 1948	4.83 29/65	3.0
Year { Totals	..	..	46.39	131	..	..	..	47.8
Year { Averages	27.0	76	..	..	..	..	..	..
Year { Extremes	..	..	..	..	28.65 4/1946	0.00 (b)	12.89 12/4/46	..

(a) 1948 and 1950. (b) June 1957, September 1948 and 1950, and November 1965.

CLIMATOLOGICAL DATA: LAE (NEW GUINEA)

(Meteorological Office: Lat. 6° 44' S., Long. 147° 00' E., Height above M.S.L. 25 ft)

BAROMETER, WIND AND CLOUD

Month	Bar. corrected to 32° F. mn sea level and standard gravity from 9 a.m. and 3 p.m. readings (m.bars)	Wind			Prevailing direction		Mean amount of clouds, 9 a.m., 3 p.m., 9 p.m.(a)
		Average miles per hour		Highest gust speed (mph)	9 a.m.	3 p.m.	
		9 a.m.	3 p.m.				
No. of years of observations	21	5	5	11	5	5	18
January	1,006.9	7.7	8.3	51	NW	SE	6.8
February	1,006.7	8.1	7.6	43	NW	SE	6.8
March	1,007.2	6.8	7.3	40	NW	SE	7.0
April	1,008.3	4.6	7.2	40	NW	SE	6.5
May	1,009.5	2.8	6.5	36	NW	SE	6.1
June	1,010.5	2.7	6.2	41	NW	SE	6.1
July	1,011.0	2.0	6.6	36	NW	SE	6.5
August	1,011.0	2.2	6.8	40	N	SE	6.5
September	1,010.9	2.3	7.9	38	NW	SE	6.3
October	1,010.0	2.9	7.9	40	NW	SE	6.0
November	1,008.4	4.6	8.7	45	NW	SE	6.3
December	1,007.3	6.0	8.4	41	NW	SE	6.7
Year { Totals	..	..	..	..	..	..	..
{ Averages	1,009.0	4.4	7.5	51	NW	SE	6.5
{ Extremes	..	..	..	..	..	..	..

(a) Scale 0-8.

TEMPERATURE

Month	Mean temperature (° Fahr.)			Extreme shade temperature (° Fahr.)	
	Mean max.	Mean min.	Mean	Highest	Lowest
No. of years of observations	18	18	18	18	18
January	88.0	74.7	81.3	100.8 20/59	69.2 7/60
February	88.2	74.7	81.5	99.1 14/57	70.0 24/62
March	87.4	74.6	81.0	101.7 6/56	71.1 16/56
April	86.1	73.9	80.0	93.0 4/56	70.4 22/66
May	85.1	73.2	79.1	91.8 24/52	67.0 30/53
June	83.4	72.2	77.8	92.2 8/58	67.0 20/53
July	81.9	71.5	76.7	89.9 16/64	66.7 31/65
August	82.1	71.6	76.9	90.4 28/64	67.0 27/55
September	83.6	71.9	77.7	90.0 12. 13/50	66.3 13/61
October	85.4	72.6	79.0	95.3 31/49	66.4 4/65
November	86.7	73.4	80.1	94.0 30/61	69.6 13/65
December	87.2	74.2	80.7	96.1 24/59	68.5 19/64
Year { Averages	85.4	73.2	79.3	..	..
{ Extremes	..	..	..	101.7	66.3
				6/3/56	13/9/61

HUMIDITY, RAINFALL AND FOG

Month	Vapour pressure mean 9 a.m. (m.bars)	Rainfall (inches)				Fog mean no. days	
		Mean monthly	Mean No. of days of rain	Greatest monthly	Least monthly		
							Greatest in one day
No. of years of observations	21	22	22	22	22	21	
January	28.8	11.23	20	20.54 1964	4.21 1958	7.84 9/59	0.1
February	28.4	9.09	19	15.06 1953	2.09 1957	5.26 8/53	0.1
March	28.7	13.00	21	20.63 1952	6.19 1961	6.38 10/52	0.1
April	29.2	15.73	22	23.71 1955	11.28 1956	7.84 15/53	0.0
May	28.9	15.27	22	33.08 1957	2.65 1956	6.52 17/61	0.1
June	27.9	15.96	22	30.32 1965	4.51 1964	8.90 4/51	0.0
July	27.2	20.12	24	41.66 1953	5.63 1956	11.76 16/53	0.1
August	27.3	20.49	25	33.99 1957	6.32 1951	10.18 14/47	0.0
September	27.5	17.85	23	29.12 1950	7.58 1960	6.16 10/51	0.0
October	27.9	13.76	21	26.20 1957	4.82 1956	5.77 20/63	0.1
November	28.5	12.90	21	22.73 1948	5.04 1956	7.26 2/45	0.0
December	28.9	12.90	21	23.81 1957	6.06 1951	7.58 6/58	0.0
Year { Totals	..	178.30	261	..	..	..	0.6
{ Averages	28.3	..	..	..	..	..	..
{ Extremes	..	..	..	41.66	2.09	11.76	..
				7/1953	2/1957	16/7/53	..

Population

Censuses of the non-indigenous population of the Territory of Papua and New Guinea have been taken in conjunction with censuses of the Commonwealth of Australia. For the indigenous population of the Territory of Papua and New Guinea, estimates of size, geographic location, and the broad age distribution of the population were available from the results of the Department of District Administration census (formerly known as the Tax Census). This was conducted over most of the Territory, but was continuous rather than conducted at a common date for all areas covered. No regular pattern of operations was adopted, although once the census had been taken in an area it was in general repeated fairly frequently. Although these estimates were of great value, the limitations of the information on population characteristics and the lack of simultaneous collection for all areas made them insufficient for many purposes. The 1966 census covered both indigenous and non-indigenous populations, and thus superseded the traditional census of non-indigenes. A short description of the development operations undertaken before the 1966 census and of the actual census operations is given in Year Book No. 53, pages 141-2.

Figures for the non-indigenous population as enumerated at censuses held in conjunction with Commonwealth censuses and estimates of the indigenous population based on the Department of District Administration censuses are set out below.

TERRITORY OF PAPUA AND NEW GUINEA: POPULATION AT CENSUSES, 1921 TO 1966

Year	Indigenous			Persons estimated	Total persons	Non-indigenous		
	Enumerated		Persons			Males	Females	Persons
	Males	Females						
PAPUA								
1921 . .	59,825	52,687	112,512	..	..	1,408	670	2,078
1933 . .	..	..	170,836	..	..	1,232	941	2,173
1941 . .	..	..	..	..	..	..	..	..
1947 . .	..	..	..	..	..	2,057	1,182	3,239
1950 . .	117,455	104,474	221,929	146,630	368,559	..	..	..
1954 . .	151,464	134,732	286,196	202,200	488,396	3,867	2,446	6,313
1961 . .	236,676	209,632	446,308	67,340	513,648	5,490	4,304	9,794
1966(a) .	310,153	281,806	591,959	..	591,959	8,307	6,070	14,377
NEW GUINEA								
1921 . .	(b)100,445	(b) 66,276	(b)166,721	..	..	2,502	671	3,173
1933 . .	218,218	182,911	401,129	..	..	3,709	1,507	5,216
1941 . .	324,830	318,988	(c)684,284	300,000	984,284	..	..	..
1947 . .	..	..	..	..	..	4,369	1,831	6,200
1950 . .	415,939	354,116	770,055	301,050	1,071,105	..	..	..
1954 . .	538,113	472,480	1,010,593	184,714	1,195,307	7,201	4,241	11,442
1961 . .	721,806	647,277	1,369,083	64,300	1,433,383	9,158	6,378	15,536
1966(a) .	810,153	748,205	1,558,358	..	1,558,358	11,746	8,546	20,292

(a) Preliminary results from the 1966 Census. (b) 1920: figures for 1921 not available. (c) Includes 34,087 indentured labourers, 1,127 native constabulary, 4,823 attending approved mission schools, and 429 patients at Anelaua Leprosarium and Taskul Observation Colony (New Ireland), for which particulars of sex are not available.

The total indigenous population of Papua and New Guinea at the 1966 census was 2,150,317 persons, and the total non-indigenous, 34,669 persons. Estimated totals for 30 June 1967 are 2,219,444 and 38,082 persons respectively. See pages 1206 and 1212 for further details.

Administration

The *Papua-New Guinea Provisional Administration Act 1945-1946*, which provided for the transfer back of control from the military authorities to civil authorities after the 1939-45 War, was repealed by the *Papua and New Guinea Act 1949*, which came into force on 1 July 1949. The latter Act approved the placing of the Territory of New Guinea under the International Trusteeship system and provided for an Administrative Union of the Territory of Papua and the Territory of New Guinea with one Administrator, a Legislative Council and an Executive Council, one Supreme Court, and one Public Service.

For an outline of the development of the Legislative and Executive (later Administrator's) Councils between 1949 and 1963, see Year Book No. 51, page 117.

In May 1963 the Commonwealth Government passed an amendment to the Papua and New Guinea Act, making provision for a House of Assembly of sixty-four members to replace the Legislative Council. The house then consisted of ten official members appointed by the Governor-General on the advice of the Administrator, forty-four members elected by the people of the Territory on a common roll in forty-four open electorates, and ten non-indigenous persons elected on a common roll in ten special electorates comprising one or more open electorates. The first elections for the House of Assembly were held in February-March 1964, and the inaugural meeting of the new House was convened on 8 June 1964.

The 1963 Act also increased the membership of the Administrator's Council from seven to eleven, seven of whom must be elected members of the House of Assembly.

In October 1966 the Commonwealth Parliament passed a further amendment to the Papua and New Guinea Act, providing for an increase in the membership of the House of Assembly to ninety-four, sixty-nine members representing open electorates, fifteen from regional electorates and ten official members.

The second general election for the House of Assembly was held from 17 February-16 March 1968, and the Second House was convened on 4 June 1968. The Ministerial Nomination Committee in conjunction with the Administrator chose fifteen elected members who were appointed to seven Ministerial Member and eight Assistant Ministerial Member positions.

The *Papua and New Guinea Act 1968* provides for the Administrator's Council to become the Administrator's Executive Council, deciding major matters of Territory policy. In June 1968 it had its first meetings. It consists of the Administrator, the seven Ministerial Members, three official Members, and a twelfth Councillor who is an elected M.H.A. but a non-office holder.

Local government was introduced in 1949 by the Native Village Councils Ordinance which was replaced by the *Local Government Ordinance 1963*. The Administrator may establish by proclamation local government councils with authority in defined areas. Provision is also made for the establishment of multi-racial local councils.

Judiciary

The courts which exercise jurisdiction within the Territory are: the Supreme Court of the Territory of Papua and New Guinea, District Courts (Papua and New Guinea), Local Courts and Children's Courts (Papua and New Guinea), and Warden's Courts.

The Supreme Court is the highest judicial authority in the Territory and has unlimited criminal and civil jurisdiction. District Courts have criminal jurisdiction over the less serious offences which are punishable on summary conviction, but have no jurisdiction to try treason crimes, misdemeanours and other indictable offences. They also exercise a limited civil jurisdiction. The Local Courts exercise a substantially similar jurisdiction but at a more subordinate level. The Administrator has power to establish, in respect of each gold-field or mineral field, warden's courts with jurisdiction over civil cases respecting mining or mining lands held under the *Mining Ordinance 1937-1966* and offences against the mining laws of the Territory.

In addition, there is the Land Titles Commission set up under the *Land Titles Commission Ordinance 1962-1967* to inquire into and determine rights in land, particularly native land. The Commission has the particular function under the *New Guinea Land Titles Restoration Ordinance 1951-1966* to inquire into and determine claims to interest in land where the official records have been lost

or destroyed as a result of the Japanese invasion of New Guinea. For the purposes of the latter Ordinance the jurisdiction of the Commission is exercised by the Chief Commissioner or a Commissioner appointed under the *Land Titles Commission Ordinance* who is a qualified legal practitioner.

Agriculture and animal industry

Soils

Although a large part of Papua and New Guinea is covered by skeletal soils unsuitable for agriculture, there are extensive areas in all districts where fertile soils occur suitable for growing a wide range of crops. Most of the agriculture of the Territory up to the present has been on soils on the coastal plains, which, apart from the swamp soils, consist mainly of alluvium and podsolised alluvium. So far these have been mostly under coconut plantations, although other crops such as rubber, coffee and cocoa have also been grown. The swamp soils, of which there are extensive areas in the delta plains and other parts of the Gulf of Papua and in smaller areas, are found intermittently around the coasts and along the lower reaches of the rivers, and are in general quite unsuited to any form of agricultural development.

Volcanic soils probably offer the greatest prospects for development. They are found mostly on the central plateau and southern foothills of the main island, but there are also areas in New Britain (particularly in the Gazelle and Willaumez Peninsulas), Bougainville and New Ireland, as well as in numbers of smaller islands. Other rich soils are the alluvials of the river valleys. The largest single area of this type is in the trough occupied by the Ramu and Markham Rivers.

Land tenure

The *Land Ordinance* 1962 of the Territory of Papua and New Guinea, which came into operation in 1963, replaced much land legislation previously in force separately in the two Territories. This simplification in legislation was a major step towards applying uniform principles to land tenure throughout the whole of the Territory of Papua and New Guinea. All land in the Territory other than native land or land subject to any estates, rights, titles, or interests in force from time to time is Administration land.

There is considerable variation throughout the Territory in the nature of customary ownership of land. In most areas some rights remain in the landholding group, and individuals within the group have limited rights of use, either for life or for a shorter period. Thus the normal system by which the rights of ownership in land use are acquired is by birth to a landholding group. Transfer of rights between individuals by sale and purchase appears to have been unusual in the past, but this practice is now an established custom in some localities and appears to be increasing. Inheritance may be based on either patrilineal or matrilineal descent, or both. In parts of the Territory, however, there is a tendency for the whole inheritance system to change, particularly in communities where it is based on matrilineal descent. Following a close study of the problems in relation to land holdings by indigenes, the Government has laid down the following broad principles of policy.

The ultimate and long-term objective in Papua and New Guinea is to introduce throughout the Territory a single system of land holding regulated by the central Administration by statute, administered by the Department of Lands of the central Administration and providing for secure individual registered titles after the pattern of the Australian system.

Only the Administration working through the Department of Lands, Surveys and Mines and through the Registrar of Titles may issue and register land titles.

Land subject to native custom remains subject only to native custom until it is taken out of custom either by acquisition by the Administration or by a process, provided for by the *Land (Tenure Conversion) Ordinance* 1963, of conversion of title to an individual registered title. Upon either acquisition or conversion of title compensation is provided in respect of extinction of rights under native custom.

Land held under native custom may not be acquired outside of native custom by other than the Administration. Land may not be acquired by the Administration except for prescribed public purposes unless the native owners are willing to sell and the Administration is convinced, through its Department of District Administration, that the land is not required by them, and conversion of title from native custom to individual registered title may take place only if all those interested in the land under native custom consent to conversion and the method of conversion.

The services of Commissioners under the *Land Titles Commission Ordinance 1962-1966* are used, as a first priority, on investigations into claims by the Administration that land is ownerless and may therefore be declared administration land, on investigation into the ownership under native custom of land proposed to be acquired by the Administration, on settlement of disputes about the ownership of land held under native custom, and on investigations into the rights held under native custom in land proposed to be converted to individual registered title. The Commissioners, as opportunity offers, continue investigations into the holding of land under native custom; the results of such investigations are recorded for use in connection with future acquisitions or conversions of title.

The legislation and administrative steps necessary to put the remainder of this policy into effect are well advanced.

Suitable crops

The crops which can be grown in Papua and New Guinea include coconuts, coffee, tea, rubber, cocoa, fibres, rice, pepper, tobacco, peanuts, kapok, cassava, pyrethrum, ginger, cinchona, nutmeg, vanilla, tropical fruits and vegetables, sago, and tung oil, but of these the only crops of any commercial importance at present are coconuts, cocoa, rubber, coffee, peanuts, pyrethrum and passion fruit. Major developments in the production of tea and oil-palm are under way. These crops are expected to be of future economic significance.

Non-indigenous rural production

In 1966-67 there were 1,236 holdings in use by non-indigenous persons, 342 being in Papua and 894 in New Guinea. The total area of these holdings was 1,026,791 acres, 275,319 in Papua and 751,472 in New Guinea. The following tables summarise the information available for principal activities.

TERRITORY OF PAPUA AND NEW GUINEA NUMBER OF HOLDINGS, AREA, PRODUCTION AND NEW PLANTINGS 1963 TO 1967

(Source: *Production Bulletin*, Part I: *Rural Industries*, Bureau of Statistics, Papua)

Year ended 31 March—	Holdings	Area under crop(a)		Production	New plantings	
		acres	'000		acres	'000
Coconuts—						
1963 . . .	682	262,078	11,951	83,878	3,944	242
1964 . . .	687	267,578	12,076	83,667	2,771	242
1965 . . .	670	262,039	11,995	85,034	4,013	272
1966 . . .	667	264,391	12,006	90,209	5,512	377
1967 . . .	683	269,127	12,704	81,159	5,208	460
Cacao—						
1963 . . .	434	105,726	17,403	9,900	9,787	2,496
1964 . . .	429	112,404	18,360	11,285	6,349	1,809
1965 . . .	435	116,981	19,792	14,326	7,058	1,835
1966 . . .	439	122,226	20,696	14,427	8,354	1,870
1967 . . .	447	126,147	21,830	15,059	4,981	1,366
Coffee—						
1963 . . .	242	10,305	6,002	2,830	1,078	809
1964 . . .	247	10,851	6,865	3,032	890	800
1965 . . .	261	12,228	7,860	3,374	1,345	1,162
1966 . . .	257	13,415	8,779	3,874	1,323	1,254
1967 . . .	248	14,365	9,912	4,911	1,090	1,212
Rubber—						
1963 . . .	71	32,027	3,495	4,760	1,704	301
1964 . . .	73	33,797	3,703	4,941	1,419	314
1965 . . .	70	33,317	3,768	5,183	1,238	249
1966 . . .	81	35,417	3,998	5,333	1,847	344
1967 . . .	86	37,043	4,177	5,437	1,260	305

(a) Includes mature and immature areas.

(b) Includes replacements.

**TERRITORY OF PAPUA AND NEW GUINEA: AREA UNDER PRINCIPAL CROPS
AND CROP PRODUCTION, YEAR ENDED 31 MARCH 1967**

(Source: Production Bulletin, Part I: Rural Industries, Bureau of Statistics, Papua)

Crop	Recorded area in acres			Unit	Recorded production			Average yield per productive acre		
	Papua	New Guinea	Total		Papua	New Guinea	Total	Papua	New Guinea	Total
Permanent crops—										
Copra—										
Plantation	35,697	233,430	269,127	ton	8,699	72,460	81,159	0.28	0.36	0.35
Trade(a) . . . . .	..	..	..	..	730	3,966	4,696	..	..	..
Coconuts, for use as such	..	..	..	..	50	206	256	..	..	..
Cacao—										
Plantation	11,520	114,627	126,147	cwt (beans)	19,440	281,740	301,180	2.08	3.43	3.29
Trade(a) . . . . .	..	..	..	..	40	20,140	20,180	..	..	..
Coffee—										
Plantation	714	13,651	14,365	..	611	97,606	98,216	1.36	10.24	9.84
Trade(a) . . . . .	..	..	..	..	325	13,002	13,327	..	..	..
Rubber	35,458	1,585	37,043	cwt (dry)	108,324	413	108,737	4.71	0.89	4.15
Tea	(c)	(c)	(c)	lb	..	(b)	(b)	..	(b)	(b)
Grain crops—										
Maize	37	116	153	bus	783	2,442	3,225	21.16	21.05	21.08
Rice	129	32	161	ton (paddy)	84	25	109	0.65	0.78	0.68
Sorghum	306	475	781	bus	3,403	7,034	10,437	11.12	14.81	13.36
Crops for green fodder—										
Maize	44	68	112	..	..	..	..	..	..	..
Sorghum	32	75	107	..	..	..	..	..	..	..
Other	120	500	620	..	..	..	..	..	..	..
Industrial crops—										
Peanuts	15	5,056	5,071	cwt (kernel)	107	25,084	25,191	7.13	4.96	4.97
Vegetable crops—										
For sale—										
Beans (green)	8	32	40	cwt	208	829	1,037	26.00	25.91	25.93
Tomatoes	12	30	42	..	382	871	1,253	31.83	29.03	29.83
Potatoes, English	20	50	70	..	210	3,087	3,297	10.50	61.74	47.10
Potatoes, sweet	52	165	217	..	1,996	15,035	17,031	38.38	91.12	78.48
Pumpkins	41	55	96	..	1,063	695	1,758	25.93	12.64	18.31
Other	87	85	172	..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
For consumption on holding—										
Potatoes, sweet	660	3,804	4,464	cwt	28,179	285,106	313,285	42.69	74.95	70.18
All other	458	1,817	2,275	..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
All other crops	326	3,680	4,006	..	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total	85,736	379,333	465,069							

(a) Includes all produce acquired by purchase during the year from sources outside the holding. (b) Not available for publication. (c) Included in All other crops. Total area planted to tea was 2,402 acres.

Livestock on non-indigenous holdings

A number of British breeds of cattle are represented, but for best results the use of Zebu cross-bred types of cattle is necessary in virtually all beef cattle areas of the Territory. For dairying the Jersey seems to be the best breed and adapts admirably to tropical conditions. Sheep have not so far been successful in Papua and New Guinea.

Central abattoirs controlled by the Administration have been set up at Lae and Port Moresby and there are smaller private slaughterhouses at other centres.

The following table shows the numbers of the various kinds of livestock on non-indigenously occupied holdings in Papua and New Guinea at 31 March 1967.

**TERRITORY OF PAPUA AND NEW GUINEA: LIVESTOCK NUMBERS
31 MARCH 1967**

(Source: *Production Bulletin, Part I: Rural Industries*, Bureau of Statistics, Papua)

<i>Kind of stock</i>	<i>Papua</i>	<i>New Guinea</i>	<i>Total</i>
Horses	432	882	1,314
Cattle—			
For dairying—			
Cows—in milk	344	1,350	1,694
dry	438	934	1,372
Heifers, one year and over	184	706	890
Heifer calves, under one year	193	672	865
Bulls, one year and over	135	252	387
Bulls under one year	45	187	232
Total dairying cattle	1,339	4,101	5,440
For beef—			
Cows and heifers, one year and over	3,987	12,010	15,997
Calves, under one year	1,321	4,679	6,000
Other, one year and over	3,089	12,744	15,833
Bulls, one year and over	230	841	1,071
Bulls, under one year	81	200	281
Total beef cattle	8,708	30,474	39,182
Total, all cattle	10,047	34,575	44,622
Sheep	41	347	388
Pigs—			
Boars	78	227	305
Breeding sows	324	792	1,116
Suckers, weaners, and slips	489	1,615	2,104
Other	40	924	964
Total pigs	931	3,558	4,489
Goats	455	732	1,187
Poultry(a)—			
Fowls	51,526	57,857	109,383
Ducks	6,630	1,612	8,242
Turkeys	701	236	937
Geese	13	54	67
Total poultry	58,870	59,759	118,629

(a) Only recorded where poultry products are marketed or flocks exceed 100 birds.

Native agriculture

Most of the indigenous inhabitants of Papua and New Guinea are agriculturalists producing fruit and vegetables for their own consumption. The crops grown vary according to environment and altitude and include yams, taro and sweet potatoes, coconuts, bananas, papaws, maize, sugar cane, cassava, beans, peanuts, rice, cucurbits, and tobacco. Sago is the staple food in the extensive semi-inundated areas which occur along the lower valleys of the major rivers. In these areas it is cut largely from naturally occurring stands. In other parts of the country small areas of sago are grown along stream banks and in swampy patches and are regarded as a reserve in times of poor harvest. In recent years the indigenes have taken up the production of introduced crops such as peanuts, rice, cucurbits, and maize for their own consumption, and cocoa, coffee and pyrethrum for export. Some small-scale rubber growing is now being undertaken. In coconut areas large quantities

of copra are produced. In 1965-66 estimated indigenous production was; copra 37,000 tons, coffee 6,800 tons, cocoa 4,100 tons. In many localities the indigenes follow a farming system known as bush fallowing rotation, which is described in Year Book No. 48 and earlier issues.

The growing of food is done both by the men and the women. The division of work is usually clearly defined within the village itself, but this division is not necessarily the same in all areas. Generally the felling of forests is done by the men, and carrying the harvested food home to the village is done by the women. Other work, however, such as cultivating, planting and weeding may be done by either men or women according to the customs of the particular village or area.

The advancement of native agriculture for local food supply and improved land use in village gardens as well as for economic production of crops for sale have a high priority in Government policy for the Territory. In recent years the Administration has intensified the programme of agriculture extension work among the indigenes.

Survey of indigenous agriculture and ancillary surveys, 1961-62

A survey of the agriculture of indigenes of Papua and New Guinea was carried out in 1961-62 by the Territory Bureau of Statistics in conjunction with the Commonwealth Bureau of Census and Statistics and the Territory Department of Agriculture, Stock and Fisheries. A comprehensive report on the surveys was published by the Territory Statistician in 1963, and reference should be made to this for further information. A summary of the principal results of the survey appears on pages 1104-10 of Year Book No. 52.

Co-operative societies

Co-operatives are under the supervision and guidance of the Division of Co-operative Extension within the Department of Trade and Industry, and trained staff are stationed in districts throughout the Territory. Societies fall into the two main categories, primary and secondary. The primary consist of marketing and consumer retailing bodies dealing directly with individual members. A society which combines both these activities is termed a dual purpose primary. Secondary organisation is represented by associations of societies, formed to achieve an amalgamation of purchasing power in retail consumer store operation and marketing volume in relation to agricultural production, and to concentrate capital to facilitate the purchase of large assets such as shipping, land transport, agricultural machinery, etc.

For the year ended 31 March 1967 primary societies numbered 312, with a membership of 109,488 a total capital of \$2,063,221, and a turnover of \$4,974,424. Secondary organisations numbered 14, with 240 member societies, a total capital of \$645,712, and a turnover of \$1,320,297.

Indigenous labour

At 31 March 1967 approximately 100,895 indigenes were engaged in wage employment, 70,339 of these being employed by private enterprise, according to the most comprehensive survey ever carried out in the Territory.

Minimum wages and conditions of employment for indigenous workers are prescribed under the *Native Employment Ordinance* 1958-1965. An employer is required to pay a minimum cash wage to every worker employed by him, and provide the worker, and his family in appropriate cases, with food, clothing, cooking and eating utensils, towels, soap and other articles, medical attention, and, where necessary, accommodation. The estimated minimum cost of providing these entitlements, including accommodation, is \$173.00 a year per worker. The major portion of the workers employed under the conditions prescribed under the Ordinance are unskilled rural workers.

The legal minimum cash portion of the wage is \$52 a year for the first year of employment, \$58.50 in the second year and \$65.00 for subsequent years.

Industrial agreements negotiated between representatives of workers and employers in recent years have covered an increasing number of workers in urban areas. These agreements cover workers in the main towns, providing for minimum rates of payment of a total cash wage per week as follows: Lae, Rabaul and Madang, unskilled adults and married male juniors, \$6.75; Port Moresby and Wewak, \$6.50; other main towns, all workers \$6.00.

Agreements entered into in various localities and which have been registered as awards under the Territory's Industrial Relations Ordinance relate to: annual leave and sick leave (two weeks' leave on full pay and six days' sick leave per annum); the employment of qualified tradesmen (weekly rates of pay \$14.00 to \$16.00 for second class tradesmen and \$18.00 to \$20.00 for first class tradesmen); rates of pay and conditions of employment of stevedoring workers and ships' crews; tradesmen who have not completed a formal approved apprenticeship (weekly rates of pay \$15.00 to \$17.00); and rates of pay and conditions of employment of workers in the timber and sawmilling industries.

There has been a continued expansion of the trade union movement since industrial legislation for the Territory was introduced in March 1963. In December 1967 seventeen associations with a membership of 16,022 had been registered as industrial organisations of workers under the Industrial Organizations Ordinance.

Provision is made in other legislation for the establishment and maintenance of modern standards of industrial safety and for the payment of compensation for injury or disease arising out of, or in the course of, employment.

An apprenticeship scheme was inaugurated in 1955 and reorganised in 1968. An Apprenticeship Board, comprising representatives of private enterprise and government, advises the Administration on apprenticeship matters. At 31 December 1967, 352 apprentices had received trade certificates and 1,022 were in training.

Housing

Village housing is still constructed to traditional patterns using local materials including bush timber, bamboo, grass, pit-pit and palm leaves. Town housing is generally constructed from comparatively expensive imported material including fibrous asbestos cement, aluminium and galvanised iron.

The rapid growth of town populations has created a housing shortage. Major programmes are directed towards reducing this backlog, and administration expenditure on housing for local officers reached \$3,000,000 in 1967-68.

A Housing Commission has been established and will be engaged in solving the urban housing shortage. It is expected that the Commission will stimulate both self-help housing and private home building as well as building houses which will be available to the general public on application.

Secondary industries

Initially secondary industry, apart from several small service industries, was associated largely with the processing of local products for export. These were mainly confined to the processing of copra, fermenting of cocoa and coffee, and the curing of rubber, activities usually carried out on or near plantations. Then followed secondary industries in their own right with the establishment of a coconut oil plant, plywood factory, and a factory producing passion-fruit pulp and juice.

The emphasis has since tended to move to industries serving the growing internal market and using, in many cases, imported raw materials. These include the manufacture of cigarettes, twist tobacco, wire products, building materials, paints, concrete products, lawnmowers, oil drums, and industrial gases; the assembly of electrical appliances; and boat building, brewing and furniture making. A wide variety of service industries has also been established, such as engineering workshops, plumbing establishments, motor repairs, and electrical services. Secondary industries processing primary products are still being established, a recent example being a desiccated coconut factory.

TERRITORY OF PAPUA AND NEW GUINEA: SUMMARY OF FACTORY OPERATIONS, 1965-66 AND 1966-67

(Source: *Production Bulletin*, Part II: *Secondary Industries*, Bureau of Statistics, Papua)

	Papua		New Guinea		Total	
	1965-66	1966-67	1965-66	1966-67	1965-66	1966-67
Number of factories(a)	137	178	270	301	407	479
Average number employed(b)	4,080	4,316	6,706	6,678	10,786	10,994
Salaries and wages paid(c)	\$'000 3,654	4,378	5,133	5,767	8,787	10,146
Value of power, fuel, light, etc., used(d)	502	578	950	1,083	1,452	1,661
Value of materials used(e)	6,780	8,618	18,556	20,257	25,336	28,875
Value of production(f)	8,437	9,228	13,110	15,860	21,547	25,088
Value of output(g)	15,719	18,424	32,615	37,200	48,334	55,624
Value of land and buildings(h)	5,619	6,705	6,184	7,449	11,803	14,153
Value of plant and machinery(h)	4,477	5,987	7,134	7,702	11,611	13,689

(a) Any factory, workshop or mill in which four or more persons are employed or power other than hand is used. (b) Average weekly employment including working proprietors. (c) Excludes drawings by working proprietors. (d) Includes water and lubricating oil. (e) Includes value of containers, packing, etc., tools replaced, and repairs to plant. (f) Value added in process of manufacture (i.e. value of output less value of materials and power, fuel, etc. used). (g) Value of goods produced including amounts received for repair work and other work done. (h) Depreciated or book value at end of year, including estimated value of rented premises and machinery.

**TERRITORY OF PAPUA AND NEW GUINEA: FACTORY OPERATIONS
BY CLASS OF INDUSTRY, 1966-67**

(Source: *Production Bulletin*, Part II: *Secondary Industries*, Bureau of Statistics, Papua)

	<i>Class of industry</i>					<i>Total</i>
	<i>Industrial metals, machines and conveyances</i>	<i>Food, drink and tobacco</i>	<i>Sawmills, plywood and joinery</i>	<i>Other industries</i>		
Number of factories	220	74	122	63	479	
Number of employees—						
Non-indigenous	999	202	403	274	1,878	
Indigenous	2,353	2,354	3,304	1,105	9,116	
<i>Total employees</i>	<i>3,352</i>	<i>2,556</i>	<i>3,707</i>	<i>1,379</i>	<i>10,994</i>	
Salaries and wages paid . . . \$'000	4,621	1,410	2,535	1,579	10,146	
Value of power, fuel and light, etc. ,,	243	387	263	768	1,661	
Value of materials used . . . ,,	6,698	9,362	5,127	7,687	28,875	
Value of production ,,	7,696	6,200	6,206	4,985	25,088	
Value of output ,,	14,638	15,949	11,597	13,440	55,624	

See footnotes to previous table.

Finance

Revenue and expenditure

Information on the financial operations of each Territory will be found on pages 1210-11 and 1216-17.

Taxation

The main forms of taxation are income tax and import duties. *Income Tax* was imposed on 1 August 1959 to operate from 1 July 1959. In the case of individuals two different methods of calculating tax payable are used. Tax on taxable incomes has applied since 1 July 1959 and is calculated on a similar basis to that in Australia. The scale of taxation is about 50 per cent of the tax payable on the same taxable income in Australia. Deductions for dependants the taxpayer is maintaining are considerably higher than those allowed in Australia. Tax on chargeable income was introduced to apply from 1 January 1967 and has supplanted a previous *Personal Tax* of \$4.00 payable by all males eighteen years and over. Chargeable income consists of gross income less expenses directly incurred in earning the income. No deductions are allowable for dependants or any other private expenditure such as medical or education expenses. The tax is a flat rate of 2.025 cents in the \$1 applying on income above \$416 with a maximum of \$20.50. The two methods of calculating tax payable are supplementary, the method applied to any particular taxpayer being the one resulting in the greater amount of tax payable. Companies are taxed on a similar basis to that in Australia, and deductions allowable are generally comparable to those in Australia. From 1 July 1959 to 30 June 1967 the rates on public and private companies differed, public companies being taxed at a flat rate of 20 cents in the \$1 and private companies at 12.5 cents in the \$1 for the first \$10,000 and 17.5 cents in the \$1 for the remainder. From 1 July 1967 a flat rate of 22.5 cents in the \$1 applies to all companies, and from the same date private companies are no longer required to distribute a portion of their income in dividends each year. To encourage industry in the Territory certain companies manufacturing products new to the Territory may be granted complete tax exemption for the first five years of operation under the Industrial Development (Incentive to Pioneer Industries) Ordinance 1965. Additionally to income taxes Native Local Government Councils (which are formed voluntarily by the indigenes) are empowered to levy local taxes for the purpose of providing for local services carried out by the councils. These taxes are set off against the taxpayers' personal taxation.

The present *Customs Tariff* provides high revenue rates on imports of ale, spirits, tobacco and cigarettes, timepieces, cigarette papers, fancy goods, and jewellery, but allows entry of most necessities affecting living and building costs duty free or at a low rate of duty. Under the Customs Tariff, plant, machinery and chemicals to be used mainly for industrial and developmental purposes are generally duty-free. A by-law covers goods imported by passengers. No preferential rates are specified in the schedule. Export duties imposed on copra, cocoa, rubber, mother-of-pearl, trochus and burgos shell, and gold were repealed in July 1959.

Provision is made in the *Australian Customs Tariff (Papua and New Guinea Preference) 1936* for the free entry into Australia of certain agricultural goods produced in and imported direct from the Territory (see chapter Overseas Transactions). In addition, goods produced or manufactured in the Territory and imported directly into Australia are exempted from primage duty.

Banking

Average weekly deposits of cheque-paying banks in the Territory of Papua and New Guinea for the year 1966-67 were \$32,271,000 and loans, advances, etc., \$14,717,000. Average weekly debits to customers' accounts amounted to \$11,837,000. Savings banks depositors' balances at 30 June 1967 amounted to \$29,760,000, comprising indigenous \$11,095,000 and non-indigenous \$18,665,000, having increased since June 1957 from \$2,134,000 and \$5,802,000 respectively.

TERRITORY OF PAPUA**General description****Area, etc.**

Papua lies wholly within the tropics. The northernmost point touches 5° S. latitude; its southernmost portion, comprising Tagula and Rossel Islands, lies between 11° S. and 12° S. latitude. It is separated from Australia by Torres Strait. The length of Papua from east to west is upwards of 930 miles; towards either end the breadth from north to south is about 320 miles, but about the centre it is considerably narrower. The Territory includes also the islands of the Trobriand, Woodlark, D'Entrecasteaux, and Louisiade groups. The length of coast-line is estimated at 3,664 miles—1,728 on the mainland and 1,936 on the islands. The total area is 86,100 square miles, of which 83,325 are on the mainland and 2,775 on the islands. A description of the physical characteristics of the Territory appears in earlier issues of the Year Book (*see* No. 18, page 633).

Administration

Particulars of the early administration of Papua are given in Year Book No. 19, page 576. The Territory was placed under the authority of the Commonwealth on 1 September 1906 by proclamation issued in pursuance of Letters Patent of 18 March 1902 and was accepted by the Commonwealth by the *Papua Act* 1905, which came into force by virtue of the aforesaid proclamation. The transfer was made under the authority of Section 122 of the Constitution. The Territory is under the control of the Commonwealth, but not included within it, and is divided into seven administrative districts, Southern Highlands, Chimbu (part), Western, Gulf, Central, Milne Bay, and Northern.

Population**Indigenous population**

Within the major division, Melanesian, into which most indigenous inhabitants of the Territory are classified, a distinction may be made between a Melanesian type and a Papuan type, the former representative of the eastern mainland and the island archipelagos to the east and south-east, and the latter representative of the western third and the interior of the Territory. Some negrito traits have been noted in a few of the inland mountain groups. The total indigenous population of the Territory of Papua as recorded from preliminary results of the 1966 census is shown on page 1197. The estimated indigenous population for 30 June 1967 was 583,542 persons, comprising Central, 113,310; Gulf, 65,408; Milne Bay, 100,160; Northern, 56,253; Southern Highlands, 187,627; and Western, 60,784.

Non-indigenous population

Preliminary results of the numbers of non-indigenous population from the 1966 census are given on page 1197. The estimated non-indigenous population for 30 June 1967 was 8,290 males, 6,436 females, 14,726 persons.

Land tenure

The basic principles applying to land tenure in Papua are the same as those applying to the whole of the Territory of Papua and New Guinea described on pages 1199-1200. At 30 June 1967, of the total area of Papua, 55,104,000 acres, only 1,912,740 acres had been alienated. The distribution of alienated land at 30 June 1967 according to tenure was as follows: held by private non-indigenous inhabitants, freehold, 24,280 acres; land tenure conversions, freehold, 1,720 acres; leasehold, 376,000 acres; native reserves, 67,250 acres; other Administration land, including land reserved for public purposes, 1,443,490 acres.

Although a small amount of freehold land exists in Papua, present legislation does not provide for the granting of estates in freehold. Leases of various kinds may be granted by the Administration. The principal types of leases available are agricultural leases, pastoral leases, leases of town allotments, business leases and residence leases of other than town allotments, and various forms of special leases and licences over land. Leasehold terms are liberal, and, in general, leases may be granted for periods of up to ninety-nine years. Rent is based on the unimproved value of the land.

Leases of Crown land are granted by the Administrator following a land use examination, advertisement of leases available, and consideration of applications by the Land Board. Dealings in privately-owned land are a matter for private treaty. Native-owned land, however, cannot be acquired or leased from the native owners by private individuals. The Administration alone may purchase native-owned land, and then only if the owners are willing to sell and the Administration is satisfied that the owners do not require, and are not likely to require, the land.

The registration of titles, interests and dealings in alienated land is provided for under the *Real Property Ordinance* 1913-1962, modelled on the Torrens system of land registration.

Production

Primary production

The products of the Territory are obtained principally from its agricultural, forestry, mining, and fishing industries. Native subsistence agriculture, fishing and hunting produce most of the food requirements of the indigenous population. The main native agricultural products are taro, yams, sweet potatoes, bananas, and pawpaws. Peanuts are becoming of increasing importance in native diet. Non-indigenous enterprise produces most of the commodities exported. Indigenes, however, produce copra for export, while native enterprise in other fields of agricultural production for export purposes, e.g. cocoa and coffee, is undertaken. The principal agricultural products of Papua for the export trade are copra and rubber. Native production of copra is increasing. The main products of fisheries exported from Papua are trochus shell and mother-of-pearl. Gold, manganese, zinc-lead, and copper ores have been mined in commercial quantities in the past, but current production is limited.

For information on the agricultural and animal industries, which for the sake of convenience covers the Territories of Papua and New Guinea singly and combined, see pages 1199-1203. The following paragraphs relate to forestry, mining, fisheries, and water-power resources in Papua.

Forestry

A general description of the forest policy, which applies in Papua as well as in the Trust Territory of New Guinea, is given under the heading, Timber, on page 1213.

Mixed species of tropical rain forest covers most of Papua, although north-east of Port Moresby there is an area of monsoonal savannah country. Because of the mixed nature of the timbers in any one area, their utilisation on an economical basis is somewhat difficult. Mangroves occur in large areas fringing the Gulf of Papua. Forestry field work is carried out in Papua with a view to assessing the forest resources available and also to survey areas subsequently made available for cutting.

At 30 June 1967 thirty permits and twenty-eight licences were current. The total areas of forest involved were 385,736 acres and 84,512 acres respectively. The total number of logging mills was 28, and the total sawn-timber produced during 1966-67 was 10.9 million super feet.

Mining

Although a large number of minerals have been found in Papua, including platinum, gold, silver, copper, tin, lead, zinc, cinnabar, iron, osmiridium, manganese, sulphur, chromite, gypsum, and lignite, current mineral production is not of economic importance. Before the 1939-45 War gold was an important item in Papuan production, but it has since dwindled to insignificance. Large quantities of copper ore were mined and exported up to 1940. Extensive deposits of magnetite sands exist along the Gulf of Papua coastline, but these contain the undesirable impurity titanium, and ways of separating this from magnetite are under investigation. The *Mining Ordinance* 1937-1966 and the *Mining Development Ordinance* 1955-1960 control mining in Papua.

The existence of petroleum has been proved at scattered locations over a large area, but commercial quantities have not been discovered. Natural gas has been found in several wells, but its commercial use is not yet economically feasible. At 30 June 1967 seventeen permits and licences were effective under the provisions of the *Petroleum (Prospecting and Mining) Ordinance* 1951-1965. Oil prospecting is confined mainly to the Gulf and Western Districts, including off-shore areas in the Gulf of Papua.

Fisheries

Surveys have been carried out of the fisheries resources of Papua. These have been demonstrated to be considerable, and efforts are being made to increase the present small degree of utilisation. Assistance is also being given by the Administration in improving the indigenous methods of fishing, and the use of improved gear is being encouraged by extension workers. Shell fishing, particularly trochus, provides the main cash return.

Water power

Most of the rivers in Papua carry a large volume of water from a great height over a relatively short distance, thereby offering opportunities for the installation of hydro-electric power plants. It is estimated that at least 1,850 MW could be developed.

The Rouna No. 1 hydro station on the Laloki River near Port Moresby has a capacity of 5.5 MW. A second hydro station, Rouna No. 2, came into operation in 1967, with an initial installed capacity of 18 MW. Total planned capacity of this station is 30 MW.

Trade, transport and communication**Value of imports and exports**

TERRITORY OF PAPUA: IMPORTS AND EXPORTS, 1962-63 TO 1966-67
(**\$'000**)

	1962-63	1963-64	1964-65	1965-66	1966-67
<i>Total imports(a)</i>	21,438	27,617	32,733	42,865	49,952
Exports—					
Domestic exports	5,049	5,318	6,075	6,113	5,417
Re-exports	1,625	1,857	2,971	2,827	3,421
<i>Total exports</i>	6,675	7,175	9,046	8,940	8,838

(a) Includes outside packages.

Country of origin or destination

TERRITORY OF PAPUA: COUNTRY OF ORIGIN OF IMPORTS
1962-63 TO 1966-67
(**\$'000**)

<i>Country of origin</i>	1962-63	1963-64	1964-65	1965-66	1966-67
Australia	13,581	17,568	20,305	25,986	31,243
Canada	36	60	73	220	437
China (mainland)	55	156	250	312	529
Germany (Federal Republic of)	420	582	567	676	663
Hong Kong	850	966	1,011	1,132	1,348
Indonesia	807	862	493	31	90
Japan	1,018	1,575	1,977	3,112	4,167
Malaysia (including Singapore).	102	389	626	962	1,081
United Kingdom	1,546	1,648	2,186	3,027	2,711
United States of America	1,154	1,775	2,924	2,925	3,214
Other countries	1,869	2,035	2,321	4,481	4,469
<i>Total</i>	21,438	27,617	32,733	42,865	49,952

TERRITORY OF PAPUA: COUNTRY OF DESTINATION OF EXPORTS
1962-63 TO 1966-67
(**\$'000**)

<i>Country of destination</i>	1962-63	1963-64	1964-65	1965-66	1966-67
Australia	5,351	5,752	6,836	6,771	6,993
Japan	232	290	238	280	430
United Kingdom	728	650	1,220	1,172	926
Other countries	365	483	752	717	489
<i>Total</i>	6,675	7,175	9,046	8,940	8,838

Principal commodities exported

TERRITORY OF PAPUA: PRINCIPAL DOMESTIC EXPORTS
1962-63 TO 1966-67
(\$'000)

<i>Commodity</i>	<i>1962-63</i>	<i>1963-64</i>	<i>1964-65</i>	<i>1965-66</i>	<i>1966-67</i>
Rubber	2,331	2,434	2,551	2,562	2,475
Copra	2,085	1,968	2,805	2,550	2,083
Cocoa beans	48	100	71	123	209
Gold	1	1	2	2	1
Shell (marine)	21	24	26	17	25
Crocodile skins	315	529	392	623	344
Other	249	263	228	236	280
Total	5,049	5,318	6,075	6,113	5,417

Shipping

In 1966-67 shipping entries (overseas and inter-Territory vessels) at Territory ports totalled 563, and 298,976 tons of cargo were discharged and 89,830 tons were loaded.

Regular passenger and freight services operate between Australia, New Guinea and Papua. Vessels trading between Australia and the East also call at Territory ports, and there are services from continental and United Kingdom ports. Coastal and inter-island shipping services are maintained by vessels operating from the two principal ports of Port Moresby and Samarai.

Other forms of transport and communication

Scheduled flights provide a network of air transport throughout Papua, and regular air services link the Territory with Australia and neighbouring Territories, and also with Manila and Hong Kong. There were 100 aerodromes in Papua at 30 June 1967, and of these 2 were the responsibility of the Department of Civil Aviation, 48 were operated and maintained by the Administration, and 50 were owned and maintained by Missions, plantation and mining interests. Much of the internal traffic and freight is carried on a charter basis.

At 30 June 1967 there were 2,148 miles of road in Papua of which 624 were adequately paved. Total motor vehicle registrations (excluding defence force vehicles) at 31 December 1966 were 6,534.

Telephone services operate in the main centres. The radio station at Port Moresby for both transmission and reception is shared by the Overseas Telecommunications Commission and the Administration. The former provides all external radio-telephone and telex circuits, while the latter operates internal telephone and telegraph services. Local telephone services are provided from automatic exchanges at Port Moresby and Sogeri and from manual exchanges at Popondetta, Samarai, Mendi, Tapini, Kerema and Daru. Port Moresby is connected by direct radio-telephone trunk circuits with Popondetta and Samarai and with Lae, Rabaul and Wewak in New Guinea. Radio telegraph services are provided from Port Moresby, Samarai, Kerema, and Daru to nearly 300 outstations. The Australian Broadcasting Commission broadcasts from medium wave station 9PA and short wave stations VLK and VLT located at Port Moresby. The Administration Department of Information and Extension Services operates transmitters at Alotan, Daru and Kerema and produces programmes in several local languages covering news, health features, general information and programmes of local and regional significance.

Education and health**Education**

Education in the Territory is provided by the Administration and various Mission organisations. Schools for indigenes, also, have been established by Local Government Councils. The *Education Ordinance* 1962-64 enables the Administration to establish an education advisory board, district education committees and European and native schools, and to grant financial aid for educational purposes. European teachers are recruited from Australia and overseas, and indigenous teachers are trained in the Territory by the Administration and Missions. During the year ended 30 June 1967, 172 schools were maintained by the Administration for 29,509 children. The total number of pupils in the various grades of mission schools was 39,441. To assist the educational work of the Missions the Administration provides expert advice, educational equipment and text-books. In addition, the sum of \$496,000 was distributed among the Missions as grants-in-aid during the year ended 30 June 1967.

Health

The Department of Public Health of the Territory of Papua and New Guinea has the general oversight of all medical and dental services. The Department has the following seven functional divisions: medical services; preventive medicine; medical training; infant, child and maternal health; medical research; administration; and mental health. The services for the Territory of Papua are under the administrative control of a regional medical officer, with headquarters staff at Port Moresby.

The cases treated in hospitals are mainly pneumonia, gastro-enteritis, skin disease, malaria, accidents, diseases due to old age, and confinements. At 30 June 1967 the Administration had established 31 general hospitals, 2 hospitals for the treatment of Hansen's disease, 1 Hansenide-tuberculosis hospital, 2 tuberculosis hospitals, and 1 mental hospital; the Missions had established 34 general hospitals, 2 Hansenide hospitals, 2 Hansenide-tuberculosis hospitals, and 1 tuberculosis hospital. There were 441 village aid posts or medical centres (173 Mission), 78 maternal and child welfare clinics (66 Mission), and 719 mobile clinic centres (587 Mission). School medical examinations, immunisation, ante-natal and post-natal care, and pre-school services are also provided. The Missions employ their own doctors and nurses in their medical establishments.

For some years suitably qualified indigenes attended the Central Medical School at Suva, Fiji, to be trained as Assistant Medical Officers. In 1959 the Administration began training indigenous medical officers at the Papuan Medical College which is associated with the Port Moresby General Hospital. The College, planned to accommodate 600 students eventually, is being built in stages. The course consists of a preliminary year and five years further study. Training for nurses and medical auxiliaries in many categories is also being provided.

Finance

TERRITORY OF PAPUA: REVENUE AND EXPENDITURE, 1962-63 TO 1966-67
(*\$'000*)

	1962-63	1963-64	1964-65	1965-66	1966-67
REVENUE					
Customs	2,540	3,109	3,548	4,832	5,879
Licences	112	136	156	192	237
Stamp duties	99	81	145	158	250
Postal	803	856	1,090	1,437	1,848
Land revenue	172	152	151	318	345
Mining receipts	7	7	10	12	14
Fees and fines	29	36	56	85	117
Health revenue	89	93	92	108	117
Forestry	48	74	73	97	88
Agriculture	79	96	76	91	113
Public utilities	811	315	279	352	388
Direct taxation(a)	2,919	3,646	4,917	5,705	8,255
Miscellaneous	701	1,888	2,428	3,475	3,810
Territory loans . . . . .	..	..	..	(b)2,485	2,141
<i>Total internal revenue</i>	<i>8,409</i>	<i>10,489</i>	<i>13,023</i>	<i>19,347</i>	<i>23,602</i>
Grant by Commonwealth of Australia	15,728	20,022	22,125	23,821	19,804
Total revenue	24,137	30,511	35,148	43,168	43,406

(a) Includes Personal Tax.

(b) Previously deducted from expenditure.

TERRITORY OF PAPUA: REVENUE AND EXPENDITURE
1962-63 TO 1966-67—*continued*
(\$'000)

	1962-63	1963-64	1964-65	1965-66	1966-67
EXPENDITURE					
Expenditure from revenue—					
Special appropriations	450	556	874	1,333	1,396
Departments—					
Administrator—					
Administrator	386	627	380	446	538
Legislative and Administrator's Councils(a)	31	43	97	123	145
Information and Extension Ser- vices	133	175	200	296	290
Public Service Commissioner(b)	186	222	246	319	429
Treasury—					
Central Treasury	1,231	1,501	1,641	1,705	3,983
Taxation Branch	44	52	60	69	75
Motor Transport Branch	(c)	512	564	702	846
Stores and Supply Branch(d)	1,688	2,712	2,761	3,019	2,475
Government Printing Office	(e)	76	88	110	100
Public Health	2,486	2,775	2,997	3,308	3,385
District Administration(f)	1,044	1,231	1,547	1,812	1,631
Agriculture, Stock and Fisheries	894	1,062	1,334	1,564	1,407
Education	2,333	3,007	3,852	4,554	4,638
Labour	82	99	140	186	189
Police	690	716	893	1,193	1,973
Law—					
Law(g)	170	200	241	357	381
Corrective Institutions Branch	97	116	137	191	385
Lands, Surveys and Mines	430	515	645	617	729
Forests	141	178	220	316	287
Posts and Telegraphs	995	1,200	1,311	1,585	1,794
Trade and Industry(h)	463	542	746	936	738
Public Works—					
Public works	440	575	1,300	1,274	1,298
General maintenance	2,640	3,141	3,573	3,569	3,815
Capital works and services(i)	6,228	7,158	7,525	11,801	8,687
Purchase of capital assets	883	1,520	1,618	1,883	1,673
<i>Expenditure from revenue</i>	<i>24,163</i>	<i>30,511</i>	<i>34,988</i>	<i>43,268</i>	<i>43,286</i>
Expenditure chargeable to					
Loan Fund	754	1,277	2,407	..	..
Total expenditure	24,917	31,787	37,395	43,268	43,286

(a) Includes the Administrator's Council which replaced the Executive Council during 1960-61 and the House of Assembly which replaced the Legislative Council during 1963-64. (b) Includes expenditure of the Administrative College. (c) Transport costs transferred to consuming departments. (d) Includes costs of general stores for all departments except Public Works. (e) Printing costs transferred to consuming departments. (f) Before 1964-65, Department of Native Affairs. (g) Up to 1963-64 the Land Titles Commission was included in the Department of Law. The two figures have been combined for 1964-65 and 1965-66. (h) Includes Trade and Industry, Customs and Migration, and Marine. (i) Additional expenditure on this item included under 'Expenditure chargeable to Loan Fund'.

TRUST TERRITORY OF NEW GUINEA**General description****Area, etc.**

The Trust Territory of New Guinea extends almost from the equator to latitude 8° S., a distance of 400 nautical miles, and from longitude 141° E. to 160° E., a distance of 1,000 nautical miles. The land area is 92,160 square miles, that of the New Guinea mainland being 69,095 square miles and that of adjacent islands, including the two northernmost islands of the Solomon Islands, Buka and Bougainville, and the Bismarck Archipelago, 23,065 square miles. Information regarding physiography and climate will be found in Year Book No. 22, page 613, in the *Official Handbook of the Territory of New Guinea*, and the Administration Annual Reports.

Administration

The terms of the League of Nations mandate (1920) of the former German possession of New Guinea are given in Year Book No. 33 (see page 264). Particulars of the administration of the Territory of New Guinea prior to the setting-up of the Papua and New Guinea Administration are given in Year Book No. 36 and earlier issues, and of events following the outbreak of the Pacific War in Year Book No. 37 and subsequent issues up to No. 48.

Following the 1939-45 War the Commonwealth Government undertook to place the Territory of New Guinea under the Trusteeship System established under the Charter of the United Nations. The Trusteeship Agreement for the Territory, under which the Government of Australia is the sole administering authority, was approved by the General Assembly of the United Nations Organization on 13 December 1946. The terms of the Agreement are shown in Year Book No. 39, pages 355-7.

For administrative purposes the Territory is divided into the following twelve districts: East New Britain and West New Britain, comprising New Britain and the adjacent islands; Morobe, Madang, Eastern Highlands, Chimbu, Western Highlands, East Sepik and West Sepik on the mainland; New Ireland, comprising New Ireland, Lavongai and adjacent islands; Manus, comprising the Admiralty Group; and Bougainville in the Solomon Islands. Each district is administered by a District Commissioner.

Population**Indigenous population**

The indigenous people of the Territory may in general be grouped with the Melanesians who occupy the greater part of the Western Pacific. They may be divided into two main types—Melanesian and Papuan—the former, with a few exceptions, constituting the population of the Bismarck Archipelago, the Solomon Islands and the coastal districts of the New Guinea mainland, the latter inhabiting the interior of the mainland. Some tribes of Negritos exist in the mountains of New Guinea. There is a strain of Papuan, and, possibly, of Polynesian blood in the Admiralty Islanders, while the Western Islanders and the inhabitants of the small islands east and south-east of New Ireland are Micronesians. (See Year Book No. 16, page 670, and *Official Handbook of the Territory of New Guinea*, Part V.)

The indigenous population of the Territory at the census of 30 June 1966 is shown on page 1197. At 30 June 1967 the estimated indigenous population was 1,635,902 persons, comprising Bougainville, 68,566; Eastern Highlands, 213,249; Chimbu, 175,669; Western Highlands, 311,908; Madang, 156,375; Manus, 23,126; Morobe, 224,672; East New Britain, 91,709; West New Britain, 47,548; New Ireland, 45,392; East Sepik, 153,444; and West Sepik, 124,244.

Non-indigenous population

The non-indigenous population of the Territory of New Guinea at the 1966 Census is shown on page 1197. At 30 June 1967 the estimated non-indigenous population of the Territory was 13,685 males, 9,671 females, 23,356 persons.

Land tenure

The principles governing the acquisition and ownership of land and types of tenure available in New Guinea are in general similar to those which obtain in Papua, and grants of estates are restricted to leasehold tenure. In New Guinea, however, the amount of freehold land of earlier origin held by

private non-indigenous owners amounts to more than half a million acres. Freehold titles to this land, which includes a good deal of plantation land, may be transferred by purchase, subject only to the general provision that dealings in land require the approval of the Administrator.

The area of the Territory of New Guinea is estimated at approximately 59,000,000 acres, of which at 30 June 1967 only 1,721,710 acres were alienated. The following was the distribution of alienated land according to tenure at 30 June 1967: held by private non-indigenous inhabitants—freehold, 525,830 acres, leasehold, 425,160 acres; native reserves, 26,810 acres; other Administration land, including land reserved for public purposes, 743,910 acres.

Under German law there was a system of registration of titles in a Ground Book, but registration did not necessarily confer an indefeasible title. The German system has been replaced by one modelled on the Torrens plan, embodied in the *Lands Registration Ordinance* 1924–1962. The land registers were lost during the 1939–45 War, but provision for restoration of the lost titles is made in the *New Guinea Land Titles Restoration Ordinance* 1951–1966.

Production

The products of the Territory are obtained principally from its agricultural, mining, fishing, and forestry industries. A copra crushing mill near Rabaul, established in 1952, commenced crushing at about 18,000 tons of copra per annum, and its capacity is now about 60,000 tons of copra per annum. At Bulolo a company is producing high quality moisture-proof plywood in a factory with an approximate annual plywood production of 28 million square feet (on a $\frac{3}{4}$ in basis). Native subsistence agriculture, fishing and hunting produce most of the food requirements of the indigenous population. The main native agricultural products are taro, yams, sweet potatoes, coconuts, bananas, papaws. Non-indigenous enterprise produces most of the commodities exported. Indigenes, however, produce copra for export, and in recent years have taken up the production of introduced crops such as peanuts, rice, cucurbits, and maize for their own consumption and cocoa, coffee and pyrethrum for export. The principal agricultural products of New Guinea for the export trade are copra and coconut oil, cocoa, and coffee, but exports of timber and timber products are substantial. The main products of fisheries exported from New Guinea are trochus and green snail shell, including that collected by indigenes. Gold is the principal mineral mined. Indigenes are taking an increasing interest in mining for alluvial gold on their own account, and production from this source is continually rising, in contrast to falling European production.

For information on the agricultural and animal industries, which for the sake of convenience covers the Territories of Papua and New Guinea singly and combined, see pages 1199–1203. The following paragraphs relate to the timber, fishing and mining industries in the Territory of New Guinea alone.

Timber

Various species of timber are found in the Territory, and one accessible pure stand is the valuable pine forests of the Bulolo Valley. This timber is used mainly for the production of plywood and veneer. The Territory forests also provide fitches, battery veneer, and egg-case parts. The Administration operates a training centre for forestry workers, nurseries and a herbarium, and is establishing a research institute in Port Moresby.

The Government intends to make available a number of large-scale permit areas containing from 2,000 to 5,000 million super feet of timber to help overcome the problems of multiplicity of species and continuity of supply of particular species. In opening up these major permit areas consultants are being employed to investigate the forest resources, assess the market potential and recommend working places and forms of processing for each area. Present policy calls for the orderly development of the timber industry on sound forestry principles to ensure no waste of the resources and no over-exploitation. Timber growing on native lands cannot be acquired by private purchasers direct from the native people, but must be obtained through the Administration. Royalty is payable on all forest produce taken under permit or licence. Reforestation of areas dedicated for forestry in perpetuity is carried out by the Administration.

At 30 June 1967, 59 permits and 18 licences were current, the total areas of forest involved being 682,395 acres and 48,101 acres respectively. The total number of logging mills was 47, and the total sawn timber produced during 1966–67 was 21.4 million super feet.

Mining

The production of gold and associated silver is the most important mining activity in New Guinea, although other minerals, such as osmiridium, platinum, copper, iron ore, sulphur, and brown coal, have been discovered. The production of gold in New Guinea since the 1939–45 War has been on a

much smaller scale than before the war, decreasing from \$1,410,000 in 1959-60 to \$893,000 in 1966-67. The discovery of extensive low-grade copper deposits on Bougainville has given impetus to the copper industry in the Territory.

The laws in operation governing mining are the *Mining Ordinance* 1928-1966, the *Mines and Works Regulation Ordinance* 1935-1966 and the *Mining Development Ordinance* 1955-1960 and the regulations made thereunder.

The *Petroleum (Prospecting and Mining) Ordinance* 1951-1965 deals with the issue of permits and the granting of licences and leases for oil exploration. There were three prospecting permits for oil current at June 1967.

Water power

An approach was made during 1966-67 to the International Bank for Reconstruction and Development with regard to a loan for the Upper Ramu Hydro-electric Scheme, a 72 MW project planned for supplying Lae, Madang, Goroka, Mount Hagen, and intervening areas. Officials of the Bank examined the Scheme, and further investigations recommended by the Bank are being carried out.

Trade, transport and communication

Value of imports and exports

TERRITORY OF NEW GUINEA: IMPORTS AND EXPORTS 1962-63 TO 1966-67 (\$'000)

	1962-63	1963-64	1964-65	1965-66	1966-67
<i>Total imports(a)</i>	35,652	43,119	54,113	67,566	76,133
Exports—					
Domestic exports	27,689	31,342	37,237	37,431	40,262
Re-exports	1,921	2,372	2,858	3,458	4,120
<i>Total exports</i>	29,610	33,714	40,095	40,889	44,382

(a) Includes outside packages.

Countries of origin or destination

TERRITORY OF NEW GUINEA: COUNTRY OF ORIGIN OF IMPORTS(a), 1962-63 TO 1966-67 (\$'000)

Country of origin	1962-63	1963-64	1964-65	1965-66	1966-67
Australia	19,448	24,029	29,355	36,466	40,002
China (mainland)	196	587	991	1,288	1,728
Germany (Federal Republic of)	1,290	1,433	1,909	1,644	2,024
Hong Kong	1,991	2,625	2,657	2,913	2,958
India	293	303	250	449	313
Indonesia	1,646	427	184	98	81
Japan	2,620	3,749	5,427	6,884	8,906
Malaysia (including Singapore)	127	885	852	2,376	360
Netherlands	302	343	390	346	4,049
United Kingdom	2,728	2,752	4,404	5,617	4,430
United States of America	2,455	2,782	3,436	4,583	4,590
Other countries	2,556	3,204	4,258	4,902	6,692
Total	35,652	43,119	54,113	67,566	76,133

(a) Includes outside packages.

**TERRITORY OF NEW GUINEA: COUNTRY OF DESTINATION OF
EXPORTS, 1962-63 TO 1966-67**

(\$'000)

<i>Country of destination</i>	1962-63	1963-64	1964-65	1965-66	1966-67
Australia	12,054	14,936	16,758	16,274	17,864
Germany, Federal Republic of	1,373	1,616	2,690	2,255	3,017
Japan	999	1,569	1,547	1,700	2,364
Netherlands	1,577	2,218	1,625	1,436	1,071
United Kingdom	10,532	10,976	13,849	15,405	13,617
Other countries	3,076	2,399	3,626	3,819	6,449
Total	29,610	33,714	40,095	40,889	44,382

Principal commodities exported

TERRITORY OF NEW GUINEA: PRINCIPAL DOMESTIC EXPORTS

1962-63 TO 1966-67

(\$'000)

<i>Commodity</i>	1962-63	1963-64	1964-65	1965-66	1966-67
Copra	7,352	8,050	9,604	11,749	7,911
Other coconut products	5,326	5,189	7,425	6,589	5,840
Cocoa beans	5,863	6,743	6,977	4,311	9,336
Coffee beans	4,024	5,326	7,276	8,712	10,095
Peanuts	592	573	461	527	521
Crocodile skins	374	377	464	378	392
Gold	1,334	1,320	1,076	945	913
Shell (marine)	38	77	47	30	76
Timber	1,115	1,329	1,416	1,683	2,255
Plywood	1,390	1,948	2,021	1,903	2,040
Veneer	72	68	73	83	127
Other	209	342	397	521	756
Total	27,689	31,342	37,237	37,431	40,262

Shipping

Regular passenger and freight services operate between Australia, Papua and the Territory of New Guinea. Vessels trading between the East and Australia and the Pacific Islands call at Territory ports, and there are monthly services from continental and United Kingdom ports. Coastal and inter-island shipping services are maintained by vessels operating from the principal ports of the Territory. Shipping within the Territory is regulated by the *Shipping Ordinance* 1951-1960 and the Coastal Shipping, Ports and Harbours Regulations. Main ports of call for overseas vessels are Lae, Madang, Wewak (mainland), Rabaul (New Britain), and Kavieng (New Ireland). In 1966-67 shipping entries at Territory ports totalled 1,054, and 473,087 tons of cargo were discharged and 303,108 tons loaded. Corresponding figures for 1965-66 were 912, 436,390, 262,576 respectively. There are no inland waterways, and the natural river system is not generally suitable for vessels except those of small tonnage.

Other forms of transport and communication

There are no railways in New Guinea, but a road construction programme is being undertaken progressively to assist the economic development of the Territory. Road transport services operate in the main towns and on the trunk roads linking Rabaul and Kokopo; Lae, Bulolo and Wau; Kavieng and Namatanai; and on the network in the Eastern and Western Highland Districts centred on Goroka and Mount Hagen. The total mileage of roads in the Territory of New Guinea at 30 June 1967 was 5,286, of which 1,888 were adequately paved. Total motor vehicle registrations (excluding defence force vehicles) at 31 December 1966 were 10,727.

Scheduled flights provide a network of air transport throughout New Guinea, and regular air services link the Territory with Australia and neighbouring territories and also with Manila and Hong Kong. There were 249 aerodrome and seaplane alighting areas in New Guinea at 30 June 1967, and of these 10 were controlled by the Department of Civil Aviation, 73 by the Administration, and 166 by private interests.

Telephone services are operated in the main centres by the Administration, and radio telephone trunk circuits link Port Moresby with Lae, Rabaul, Wewak, and Madang. The latter is connected via the SEACOM cable operated by the Overseas Telecommunications Commission with Australia

and south-east Asia. Nine zone or group centres for radio telegraph communications with about 725 out-stations have been established at Lae, Rabaul, Kavieng, Lorengau, Madang, Mount Hagen, Wewak, Sohano, and Goroka.

The Australian Broadcasting Commission broadcasts from medium wave station 9RB Rabaul. The Administration Department of Information and Extension Services operates transmitters at Goroka, Kieta, Mount Hagen, Rabaul and Wewak. The stations broadcast a balanced programme of news, information, health features and entertainment designed particularly for the people in the district in which each is located.

Education and health

Education

Education in the Territory is provided by the Administration and various Mission organisations. Schools for indigenes have also been established by Local Government Councils. The *Education Ordinance 1952-1965* enables the Administrator to establish an education advisory board, district education committees and schools for all sections of the community, and to grant financial aid for educational purposes. Expatriate teachers are recruited from Australia and overseas, and indigenous teachers are trained in the Territory by the Administration and the Missions. During the year ended 30 June 1967, 355 schools were maintained by the Administration for 53,140 children. In addition, there is a correspondence school. The total number of pupils in the various grades of mission schools, excluding exempt schools, was 98,706. To assist the educational work of the Missions the Administration provides expert advice, educational equipment and text-books. In addition, the sum of \$1,405,000 was distributed among the Missions as grants-in-aid during the year ended 30 June 1967.

Health

The cases treated in hospital are mainly pneumonia, gastro-enteritis, skin diseases, malaria, accidents, diseases due to old age, and confinements. At 30 June 1967 there were 73 Administration hospitals, including 3 Hansende colonies, 2 tuberculosis hospitals, and 1 Hansende and tuberculosis hospital. The Missions have established an additional 81 hospitals, including 3 Hansende colonies and 1 Hansende and tuberculosis hospital. There were 1,130 village aid posts or medical centres (162 conducted by Missions) and 2,173 maternity and child welfare centres (1,589 provided by Missions). The Missions staff their own medical establishments but receive financial assistance from the Administration, which also provides much of their medical stores and supplies.

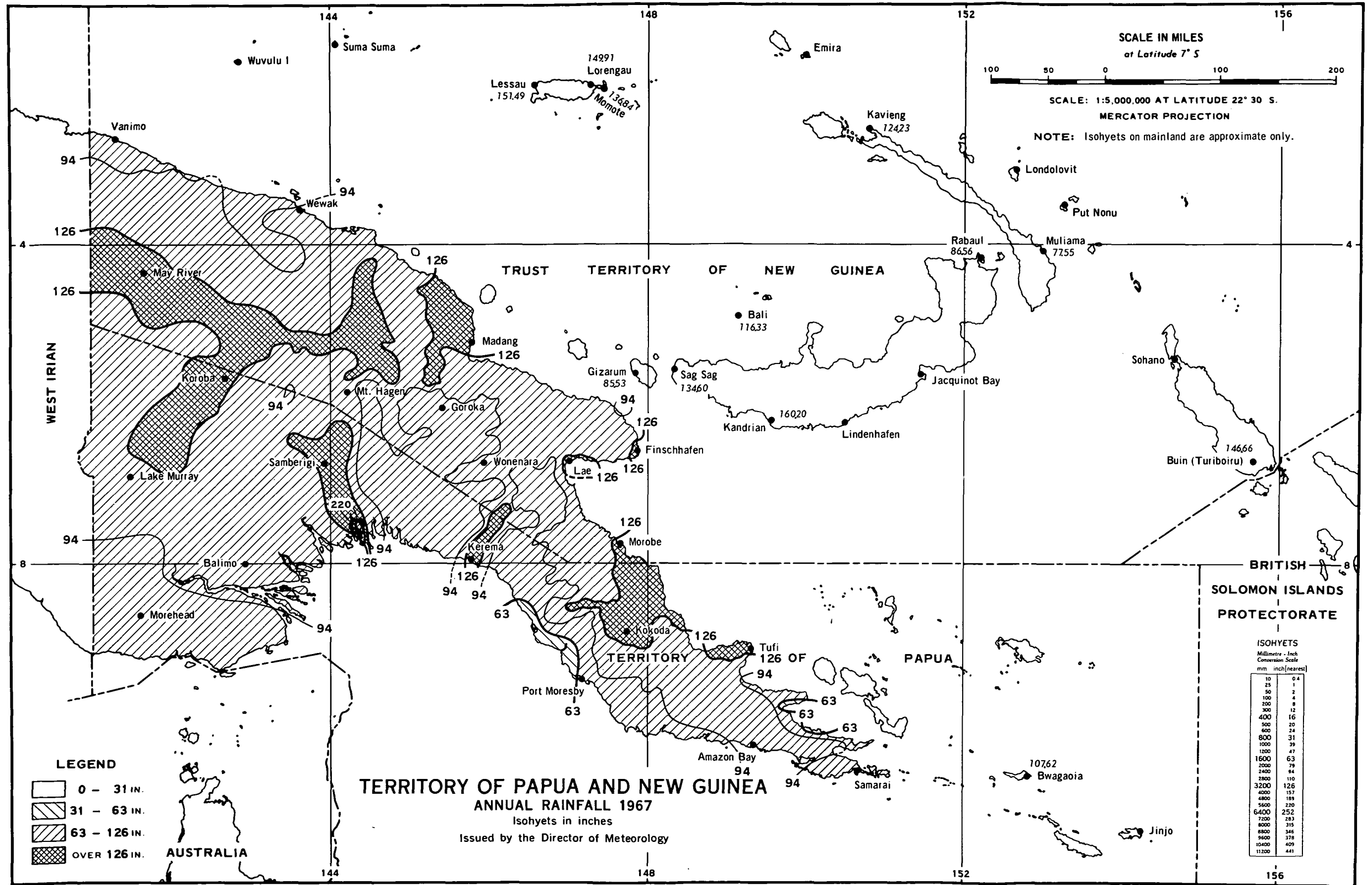
Finance

TRUST TERRITORY OF NEW GUINEA: REVENUE AND EXPENDITURE 1962-63 TO 1966-67 (\$'000)

	1962-63	1963-64	1964-65	1965-66	1966-67
REVENUE					
Customs	3,974	4,412	5,332	6,951	9,037
Licences	191	231	275	331	397
Stamp duties	141	114	99	191	172
Postal	514	705	963	1,111	1,353
Land revenue	133	195	205	335	443
Mining receipts	25	25	26	29	25
Fees and fines	42	55	74	101	131
Health revenue	123	128	141	154	183
Forestry	318	315	389	453	484
Agriculture	213	299	338	494	673
Direct taxation(a)	2,428	2,971	3,876	4,478	5,647
Public utilities	765	207	153	204	240
Miscellaneous	773	2,608	3,034	3,627	3,942
Territory loans(b) . . . . .	..	..	..	3,671	4,053
<i>Total internal revenue</i>	<i>9,640</i>	<i>12,265</i>	<i>14,906</i>	<i>22,130</i>	<i>26,783</i>
Grant by Commonwealth of Australia	24,272	30,477	33,873	38,179	49,979
Total revenue	33,912	42,741	48,780	60,309	76,762

(a) Includes Personal Tax.

(b) Previously deducted from expenditure.



SCALE IN MILES
at Latitude 7° S



SCALE: 1:5,000,000 AT LATITUDE 22° 30' S.
MERCATOR PROJECTION

NOTE: Isohyets on mainland are approximate only.

LEGEND

[White box]	0 - 31 in.
[Diagonal lines /]	31 - 63 in.
[Diagonal lines \]	63 - 126 in.
[Cross-hatched box]	OVER 126 in.

ISOHYETS
Millimetre - Inch
Conversion Scale
mm inch (nearest)

10	0.4
25	1
50	2
100	4
200	8
300	12
400	16
500	20
600	24
800	31
1000	39
1200	47
1600	63
2000	79
2400	94
2800	110
3200	126
4000	157
4800	189
5600	220
6400	252
7200	283
8000	315
8800	346
9600	378
10400	409
11200	441

TERRITORY OF PAPUA AND NEW GUINEA
ANNUAL RAINFALL 1967
Isohyets in inches
Issued by the Director of Meteorology

TRUST TERRITORY OF NEW GUINEA: REVENUE AND EXPENDITURE
1962-63 TO 1966-67—*continued*
(\$'000)

	1962-63	1963-64	1964-65	1965-66	1966-67
EXPENDITURE					
Expenditure from revenue—					
Special appropriations	763	923	1,420	1,969	2,641
Departments—					
Administrator—					
Administrator	527	942	606	423	767
Legislative and Administra- tor's Councils(a)	52	71	157	182	274
Information and Extension Ser- vices	213	285	332	354	457
Public Service Commissioner(b)	315	369	400	471	811
Treasury—					
Central Treasury	1,835	2,124	2,297	2,302	6,563
Taxation Branch	74	87	97	102	142
Motor Transport Branch	(c)	1,147	1,304	1,550	1,678
Stores and Supply Branch(d)	2,842	4,502	4,516	4,949	4,685
Government Printing Office	(e)	126	142	163	189
Public Health	4,319	4,702	5,079	6,119	6,890
District Administration(f)	1,897	2,108	2,511	2,940	4,077
Department of Agriculture, Stock and Fisheries	1,556	1,916	2,372	2,771	3,782
Education	3,938	4,911	5,945	6,902	8,337
Labour	210	235	286	286	406
Police	1,239	1,253	1,454	1,769	3,267
Law—					
Law(g)	358	417	472	660	808
Corrective Institutions Branch	131	185	221	318	600
Lands, Surveys and Mines	690	869	967	1,241	1,487
Forests	640	674	773	828	1,141
Posts and Telegraphs	1,327	1,537	1,782	1,943	2,455
Trade and Industry(h)	553	674	785	809	1,226
Public Works	746	954	2,248	2,078	2,416
General maintenance	3,629	3,727	4,428	5,157	5,893
Capital works and services(i)	4,689	5,919	6,107	11,422	12,534
Purchase of capital assets	1,370	2,085	2,077	2,601	3,234
<i>Expenditure from revenue</i>	<i>33,912</i>	<i>42,741</i>	<i>48,780</i>	<i>60,309</i>	<i>76,762</i>
Expenditure chargeable to Loan Fund—					
Capital works and services	1,043	2,119	3,911	..	..
Total expenditure.	34,955	44,861	52,691	60,309	76,762

(a) Includes the Administrator's Council, which replaced the Executive Council during 1960-61, and the House of Assembly, which replaced the Legislative Council during 1963-64. (b) Includes the Administrative College. (c) Transport costs transferred to consuming departments. (d) Includes costs of general stores for all departments except Public Works. (e) Printing costs transferred to consuming departments. (f) Before 1964-65, Department of Native Affairs. (g) Up to 1963-64 the Land Titles Commission was included in the Department of Law. The two figures have been combined for 1964-65 and 1965-66. (h) Includes Trade and Industry, Customs and Migration, and Marine. (i) Additional expenditure on this item included under Expenditure chargeable to Loan Fund.

HEARD ISLAND AND McDONALD ISLANDS

These islands, about 2,500 miles south-west of Fremantle, were transferred from the United Kingdom to Australia as from 26 December 1947. The laws of the Australian Capital Territory were declared to be in force in the Territory of Heard Island and McDonald Islands by the *Heard and McDonald Islands Act 1953*.

In December 1947 an Australian scientific station was established on Heard Island, and meteorological investigations were conducted until the station was closed in March 1955 following the establishment of Mawson station on the Antarctic mainland. Australian expeditions have since

visited the island from time to time. Heard Island is about twenty-seven miles long and thirteen miles wide. The McDonald Islands are twenty-six miles to the west of Heard Island. They are small, rocky and precipitous.

AUSTRALIAN ANTARCTIC TERRITORY

An Imperial Order in Council of 7 February 1933 placed under Australian authority all the islands and territories other than Terre Adélie situated south of 60° S. latitude and lying between 160° E. longitude and 45° E. longitude. The Order came into force with a Proclamation issued by the Governor-General on 24 August 1936 after the passage of the *Australian Antarctic Territory Acceptance Act* 1933. The boundaries of Terre Adélie were definitively fixed by a French Decree of 1 April 1938 as the islands and territories south of 60° S. latitude lying between 136° E. longitude and 142° E. longitude. The *Australian Antarctic Territory Act* 1954 declared that the laws in force in the Australian Capital Territory are, so far as they are applicable and are not inconsistent with any ordinance made under the Act, in force in the Australian Antarctic Territory.

On 13 February 1954 the Australian National Antarctic Research Expeditions (ANARE) established a station on MacRobertson Land at latitude 67° 36' S. and longitude 62° 53' E. The station was named Mawson in honour of the late Sir Douglas Mawson and was the first permanent Australian station to be set up on the Antarctic continent. Meteorological and other scientific research is conducted at Mawson, which is the centre for coastal and inland survey expeditions.

A second Australian scientific research station was established on the coast of Princess Elizabeth Land on 13 January 1957 at latitude 68° 35' S. and longitude 77° 59' E. The station was named Davis in honour of the late Captain John King Davis of Melbourne, who commanded a number of famous Antarctic ships. The station was temporarily closed down in January 1965. In February 1959 the Australian Government accepted from the United States Government custody of Wilkes Station, which was established by the United States on 16 January 1957 on Vincennes Bay, at latitude 66° 15' S. and longitude 110° 33' E. The station was named in honour of Lieut. Charles Wilkes, who commanded the 1838-40 United States expedition to the area. A new station of advanced design is being constructed close to Wilkes which it will eventually replace. ANARE have also operated a station, since the 1947-48 Antarctic season, at Macquarie Island, approximately 850 miles south-east of Hobart. Macquarie Island is a dependency of the State of Tasmania.

On 1 December 1959 Australia signed the Antarctic Treaty with Argentina, Belgium, Chile, France, Japan, New Zealand, Norway, South Africa, the U.S.S.R., the United Kingdom, and the United States of America. Poland, Czechoslovakia and Denmark have subsequently acceded to the Treaty. The Treaty reserves the Antarctic area south of 60° S. latitude for peaceful purposes, provides for international co-operation in scientific investigation and research, and preserves, for the duration of the Treaty, the *status quo* with regard to territorial sovereignty, rights and claims. The Treaty entered into force on 23 June 1961. Since then the Antarctic Treaty powers have held four consultative meetings under the Treaty, the first at Canberra in July 1961, the second at Buenos Aires in July 1962, the third at Brussels in June 1964, and the fourth at Santiago in 1966. The fifth is to be held in Paris in 1968.

COCOS (KEELING) ISLANDS

General description

The Cocos (Keeling) Islands, two separate atolls comprising some twenty-seven small coral islands with a total area of about 5½ square miles, are situated in the Indian Ocean in latitude 12° 5' S. and longitude 96° 53' E. They lie some 1,720 miles north-west of Perth and 2,290 miles almost due west of Darwin, while Johannesburg is some 3,800 miles further distant to the south-west and Colombo is 1,400 miles to the north-west of the group.

The main islands of the Territory are West Island, the largest, about six miles from north to south, on which are the aerodrome and most of the European community; Home Island, the headquarters of the Clunies-Ross Estate; Direction Island; and Horsburgh Island. North Keeling Island, which forms part of the Territory, lies about fifteen miles to the north of the groups and has no inhabitants.

Main settlements are on West Island and Home Island. The group of atolls is low-lying, flat and thickly covered by coconut palms, and surrounds a lagoon which has a harbour in the northern part but which is extremely difficult for navigation.

The climate is equable and pleasant, usually being under the influence of the south-east trade winds for about three-quarters of the year. However, the winds vary at times, and meteorological reports from the Territory are particularly valuable to those engaged in forecasting for the eastern Indian Ocean. The temperature varies between 70° and 89° F., and the average rainfall is about 67 inches. There are occasional violent storms. The estimated population at 30 June 1967 was 631 (341 males and 290 females).

History and administration

Summarised particulars of the discovery of the islands and their history up to 1946, when they became a dependency of the Colony of Singapore, are given in Year Book No. 51, page 140, and in earlier issues. On 23 November 1955 the Cocos Islands ceased to form part of the Colony of Singapore and were placed under the authority of the Commonwealth of Australia. The transfer was effected by an Order in Council made by Her Majesty Queen Elizabeth the Second under the Imperial Act entitled the Cocos Islands Act 1955 and by the *Cocos (Keeling) Islands Act 1955* of the Commonwealth whereby the islands were declared to be accepted by the Commonwealth as a Territory under the authority of the Commonwealth, to be known as the Territory of Cocos (Keeling) Islands.

Responsibility for the administration of the Territory rests with the Minister for External Territories. The first Official Representative was appointed on 23 November 1955 to take charge of the local administration of the Territory. Under the *Official Representative Ordinance 1955-1961* of the Territory, the Official Representative is given such powers and functions in relation to the Territory as are delegated to him by the Minister under the *Cocos (Keeling) Islands Act 1955-1966* or are otherwise conferred on him under that Act or by or under any other law of the Territory. The laws of the Colony of Singapore which were in force in the islands immediately before the date of the transfer were, with certain exceptions, continued in force by the *Cocos (Keeling) Islands Act 1955-1966*. They may be amended or repealed by Ordinances made under the provisions of that Act which empower the Governor-General to make Ordinances for the peace, order and good government of the Territory.

Transport and communication

There is an international airport at West Island under the control of the Commonwealth Department of Civil Aviation. Although there is no regular shipping service, vessels from Australia and Singapore call at intervals. A radio teletype link with Perth airport is maintained by the Department of Civil Aviation. Local postal and telephone services exist, and a non-commercial broadcasting station operates.

CHRISTMAS ISLAND

Christmas Island is an isolated bank situated in the Indian Ocean in latitude 10° 25' S., longitude 105° 40' E. It is approximately 220 miles south from Java Head at the south entrance to Sunda Strait, 815 miles from Singapore and 1,630 miles from Fremantle. Christmas Island covers an area of about fifty-two square miles. It consists of a central plateau of about 600 to 800 feet with several prominent rises up to 1,170 feet. The plateau descends to the sea in a series of steep slopes alternating with terraces, the last dropping in a cliff of 200 to 300 feet to a shore terrace, terminating in a sea cliff of 10 to 150 feet, which is continuous round the island except in a few places, the chief of which is Flying Fish Cove, where the principal settlement is located and which is also the only known anchorage.

The climate is healthy and pleasant, and the prevailing winds come from the south-east to east-south-east from May to December, but from then to April (the wet season) they occasionally shift round to between north and west. The average yearly rainfall is about 80 inches with a marked summer incidence. The porous nature of the ground prevents the formation of pools of water, but there are several good springs which maintain an adequate supply of fresh water for the small population and the installations. The mean average temperature is about 80° and does not vary greatly throughout the year.

The economy of the Territory is based almost entirely on the mining and extraction of phosphate. Because of the nature of the land there appears little prospect of establishing any other economic activity.

At 30 June 1967 the estimated population was 3,653 (2,426 males and 1,227 females).

Education

At 30 June 1967 there were two school systems on the Island—the Christmas Island school system which serves the majority of the children, and a European school which serves a small number of children. The Christmas Island school system follows the Singapore curriculum, and has a staff of

23 teachers mostly recruited from Singapore, and 847 pupils (624 primary and 223 secondary). The European school follows the Western Australian primary school syllabus, with two teachers seconded from the Western Australian Department of Education, and 55 pupils.

History and administration

Summarised particulars of the history of Christmas Island up to its administration by the United Kingdom as a separate Crown Colony from 1 January 1958, pending transfer to Australia, are given in Year Book No. 51, page 141, and in earlier issues. On 1 October 1958 the island was transferred to the Commonwealth of Australia by the *Christmas Island Act* 1958 and is now administered as a Territory under the authority of the Commonwealth. Responsibility for the administration and government of the Territory rests with the Minister for Territories, and day to day affairs on the island are administered by an Official Representative under delegation from the Minister. The laws which were in force in the island at 30 September 1958 were continued as the laws of the Territory after its transfer to Australia.

Phosphate deposits

The only commercial activity carried out is the mining of phosphate. The British Phosphate Commissioners act as managing agents for the Christmas Island Phosphate Commission. There are three principal phosphate deposits on the islands, of which the largest is that now being worked at South Point. This field is situated on the 600 feet to 800 feet level and is approximately 12 miles from the drying and shipping plant at Flying Fish Cove. During 1966-67 approximately 995,000 tons of phosphate were exported to Australia and New Zealand. In addition some 100,000 tons of phosphate dust were exported to Malaysia, Singapore and Australia.

Transport and communication

Transport to and from the island is maintained by vessels operated under charter by the Christmas Island Phosphate Commission. One vessel makes regular trips between Christmas Island and Singapore, and other vessels carry phosphate to Australian ports and New Zealand.

A post office and internal telephone system are operated by the British Phosphate Commissioners. The latter comprises four automatic exchanges and three small subscriber-attended exchanges. A radio station is also operated by the Commissioners for messages via Perth and Singapore and for communication with ships at sea. A limited broadcasting station commenced operating during 1966-67.