

AGRICULTURAL DEVELOPMENT ON THE WET COAST
OF NORTH QUEENSLAND, 1880-1970

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The Natural Environment

The area with which this paper is concerned lies north from Clump Point for approximately 80 kms (50 miles) and extends about 32 kms (20 miles) inland.* It is, on average, the wettest part of the entire Australian coast with a mean annual rainfall of over 2500 mms (100 inches) and includes, in the Tully and Babinda districts, small localities which have mean annual totals in excess of 3750 mms (150 inches). The area is backed by high mountains which, from Mt. Marquette in the Walter Hill Range to the Centre Peak of Bellenden Ker, reach to between 600 and 750 metres (2000-2500 feet) with the peak of Bartle Frere soaring to 1627 metres (5287 feet). These ranges, which in fact form the edge of the tablelands, have been heavily dissected by the very many streams that drain from them, of which the North and South Johnstone Rivers, and Liverpool Creek are by far the biggest.

Particularly significant in the agricultural history of the area are two distinct soil types which have proved more productive than most other north Queensland soils. These are, first, soils derived from a grey, fine grained, olivine basalt, probably Pleistocene in age, which originated as lava flows both on the tableland and on the coastal plain. This basalt has weathered to form a deep red friable earth overlying strongly structured deep sub-soils which is particularly well developed in the Nerada district, in the country between the North and South Johnstone

* A note on metrication. Australia officially adopted the metric system to replace imperial units of measurement in 1974. This change produces many problems when an historical article, such as this, frequently quotes statistics especially of area and values which are really only meaningful when stated in the units that applied at the time to which they refer. The practice that has been adopted here is to give metric units first, with imperial in brackets, for 'continuing' values such as rainfall, altitude or distance and to reverse the procedure for measurements that were only ever made in the imperial units. Values have been left in the currency relevant to the period since long term inflation makes any direct conversion pointless.

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Rivers* and between the South Johnstone and Mena Creek. A small isolated patch of this soil occurs behind Clump Point. The second important soil type is associated with the alluvial plains and terrace systems of the major rivers, such as the North and South Johnstone, Mena Creek, Liverpool Creek and Maria Creek, and with the low levee banks and relic channel cut-offs of numerous minor streams. This recent alluvial material produces a deep friable yellow or yellowish red loam. These two types of soil, occupying low lying and generally flat but well drained country, possessed a high natural fertility and, once the abundant rain forest cover was cleared, were highly suited to cultivation.

The Plantation Phase, 1880-1901

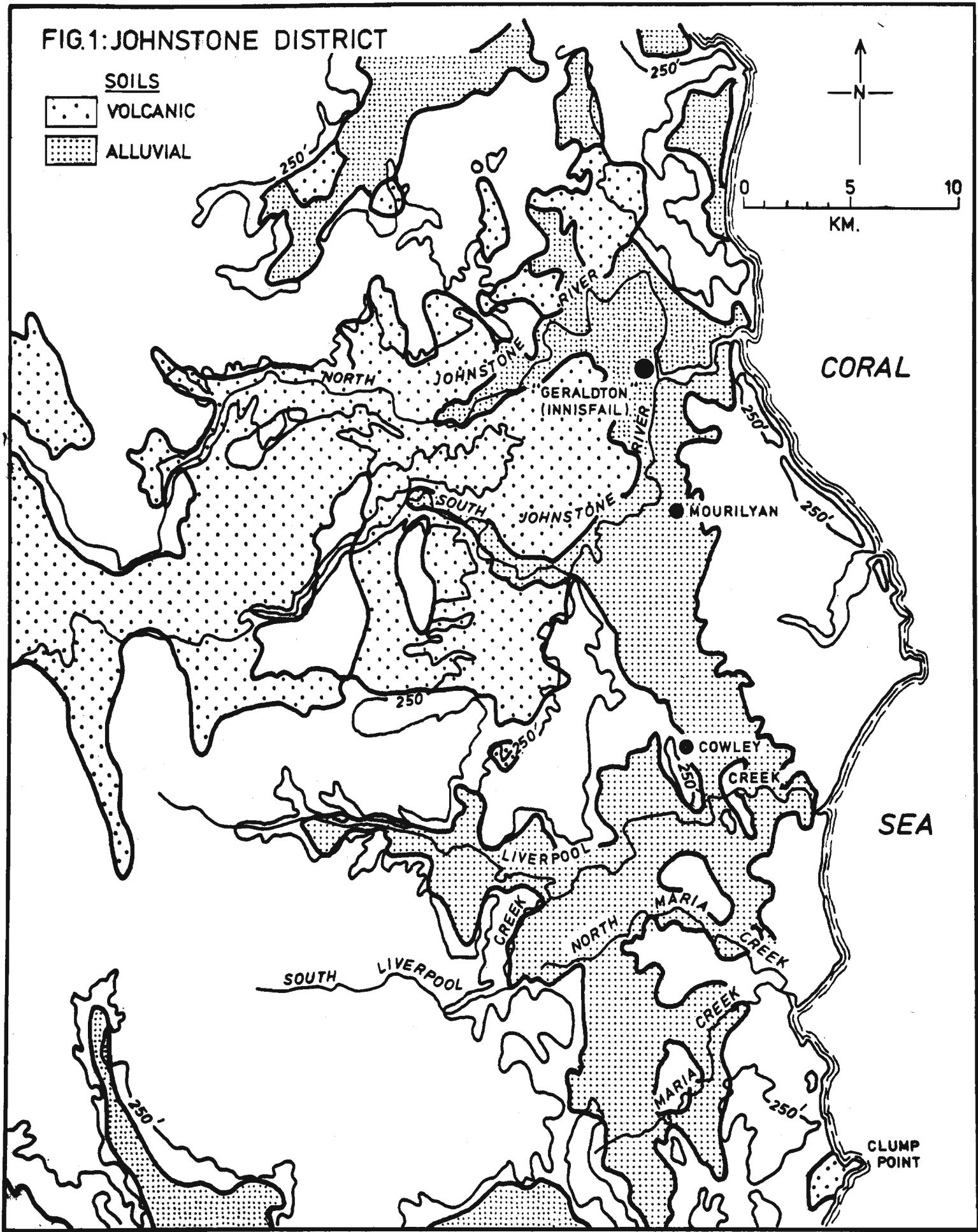
The district was first settled by Europeans in 1880, following the discovery of Mourilyan Harbour and the Johnstone River by Moresby in 1872, and Dalrymple's enthusiastic report of the agricultural prospects of the district in 1873. Cedar cutters were shipping timber from the Johnstone River district in the later 1870s, but the taking up of fifteen blocks of land, each of 1280 acres (520 hectares) by T.H. Fitzgerald and Company in 1880 for the purpose of growing sugar cane marks the beginning of permanent settlement and agriculture. The first major development of the Queensland sugar industry occurred in the early 1860s when world sugar prices were reviving for the first time since the abolition of slavery in the British Empire and the withdrawal in 1846 of protection for colonial sugar on the British market. Cane plantations had been established as far north as the Lower Herbert by 1872 with the main centre of the industry at Mackay. A serious outbreak of a cane disease in 1874 and 1875 put many planters out of business, of whom T.H. Fitzgerald, an early pioneer of the Mackay district, was attracted by the prospects of recovering his fortunes in the newly opened Johnstone River area. With financial support from the Brisbane Sisters of Mercy, Fitzgerald made application for all the original selections in 1880, which were located on river frontages in the vicinity of the present town area of Innisfail. The first crushing,

* The flow of the lava down the valley of a 'parent' Johnstone River was responsible for the later creation of the two arms of the present Johnstone river system which converge at the site of Innisfail.

FIG.1: JOHNSTONE DISTRICT

SOILS

-  VOLCANIC
-  ALLUVIAL



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producing forty tons of sugar, took place at the Innisfail mill* between November 1881 and January 1882.

Kanaka labour accompanied the first settlers in 1880 and their numbers increased during the following decade as forest clearance and cane planting spread from the initial nuclei around Junction Point and Flying Fish Point. Chinese also moved into the Johnstone district in the 1880s and helped many estates clear land for sugar. The early expansion of sugar growing in the Johnstone district was soon to be affected by the general depression of the sugar industry in the '80s, however, and acreages increased only slowly from 2399 (970 ha) in 1885, to 4363 (1766 ha) in 1890 and 6534 (2645 ha) in 1900 (see Figure 3A). During this period an alternative crop, bananas, assumed considerable importance.

From 1883 onwards the dumping of large quantities of state subsidized beet sugar by European producers on the open British market was affecting the production of cane sugar in all producing areas of the British Empire whose competitive position in their major market was considerably reduced. Germany alone dumped 760,000 tons of beet sugar on the British and United States Markets in 1886. In 1885 the price obtained for cane sugar fell from about £30 per ton to £20 per ton, and production in the Johnstone district was further hit by floods and drought in the late 1880s. The Pacific Islanders' Act of 1885, to end the recruiting of kanakas by 1890, depressed the prospects of the industry even more.

The development of the Johnstone district sugar industry had been much assisted by Chinese who had moved to the coast from the declining mineral fields of the interior, especially from the Palmer in the early 1880s, and many of whom took up clearing leases, either from the Crown or from private land-owners, on which they grew bananas. Bananas had

* Innisfail was the name of Fitzgerald's first sugar estate, but was not used for the town until 1910. The first township of the Johnstone River district was laid out in 1881 on an area of land reserved for the purpose at the junction of the North and South Johnstone Rivers and was known as Junction Point. In that year it had a population of 16. In 1883 its name was changed to Geraldton in honour of Fitzgerald, and it was not renamed Innisfail until 1910 to avoid further confusion with the West Australian Geraldton.

been grown on a small scale, in addition to other tropical fruits such as mangoes, citrus, pineapples and coconuts, in the small isolated settlements of the Bingil Bay district in the 1880s and were a preferred crop because of their rapid growth and consequent cash return. The major expansion of banana growing was, however, on the alluvial lands of the Johnstone River, Liverpool and Maria Creeks and the Tully River as the precursor to sugar. The low sugar prices of the 1880s made sugar cane only marginally profitable and many land-holders leased portions of their selections to Chinese settlers for clearing and banana growing. Holdings of between 80 and 120 acres (32 and 48 ha) were leased, first on the flats between the North Johnstone and Maria Creek and then, soon after 1900, on the banks of the Tully. The Chinese lease-holders cleared the land of its timber cover and planted bananas which, when harvested, were carried by junk down the Johnstone, Liverpool and Maria or by punt down the Tully to small steamers which shipped the fruit south. On the expiry of the leases, the selectors resumed the land for sugar and, when further uncleared selections remained, leased new areas to the Chinese growers. As a result of this sequence of timber clearance, banana growing and sugar planting, the area under bananas had exceeded 3500 acres (1420 ha) by 1903, though the maximum production (6,745,980 bunches) was recorded in 1896,* (see figure 3B).

The Royal Commission of 1889 that had been appointed by the Queensland government to report on the sugar industry, and which resulted in a temporary suspension of the law on the recruitment of South Sea labour, also looked into the problem of the banana industry. The Commission recognized that moving bananas to the coast, and then shipping the fruit south in a marketable condition were the industry's major difficulties and recommended transport improvements. The Australian United Steam Navigation Co., which had the monopoly of the coasting trade, however, could make few suggestions for ameliorating the shipment of the perishable cargo.

* It is interesting to note that very similar methods of land clearance and development were taking place on the other side of the world, in Brazil, at about the same time, only in that case it was coffee that was expanding and it was Italians rather than Chinese who were serving as the lessees.

FIG. 2: JOHNSTONE DISTRICT

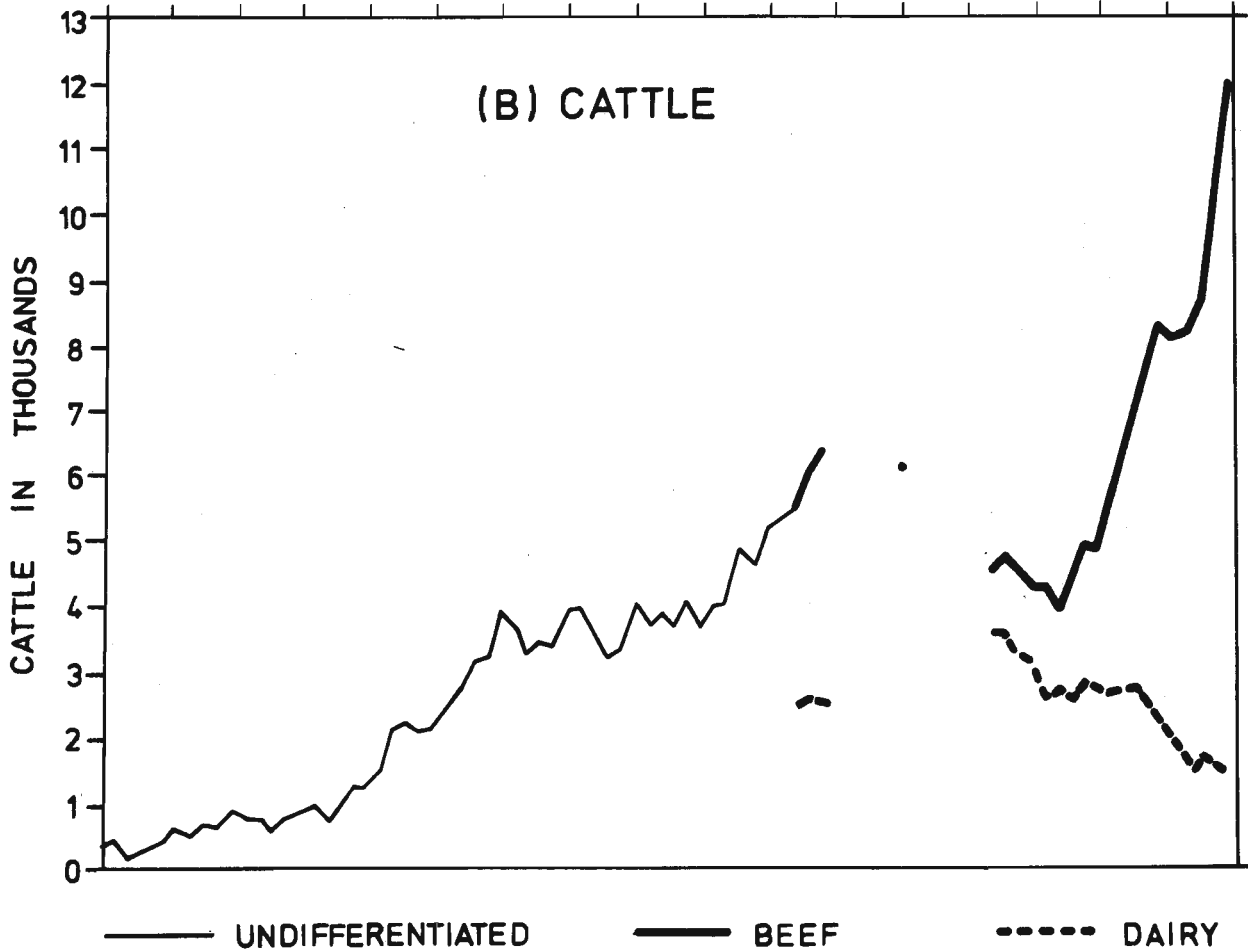
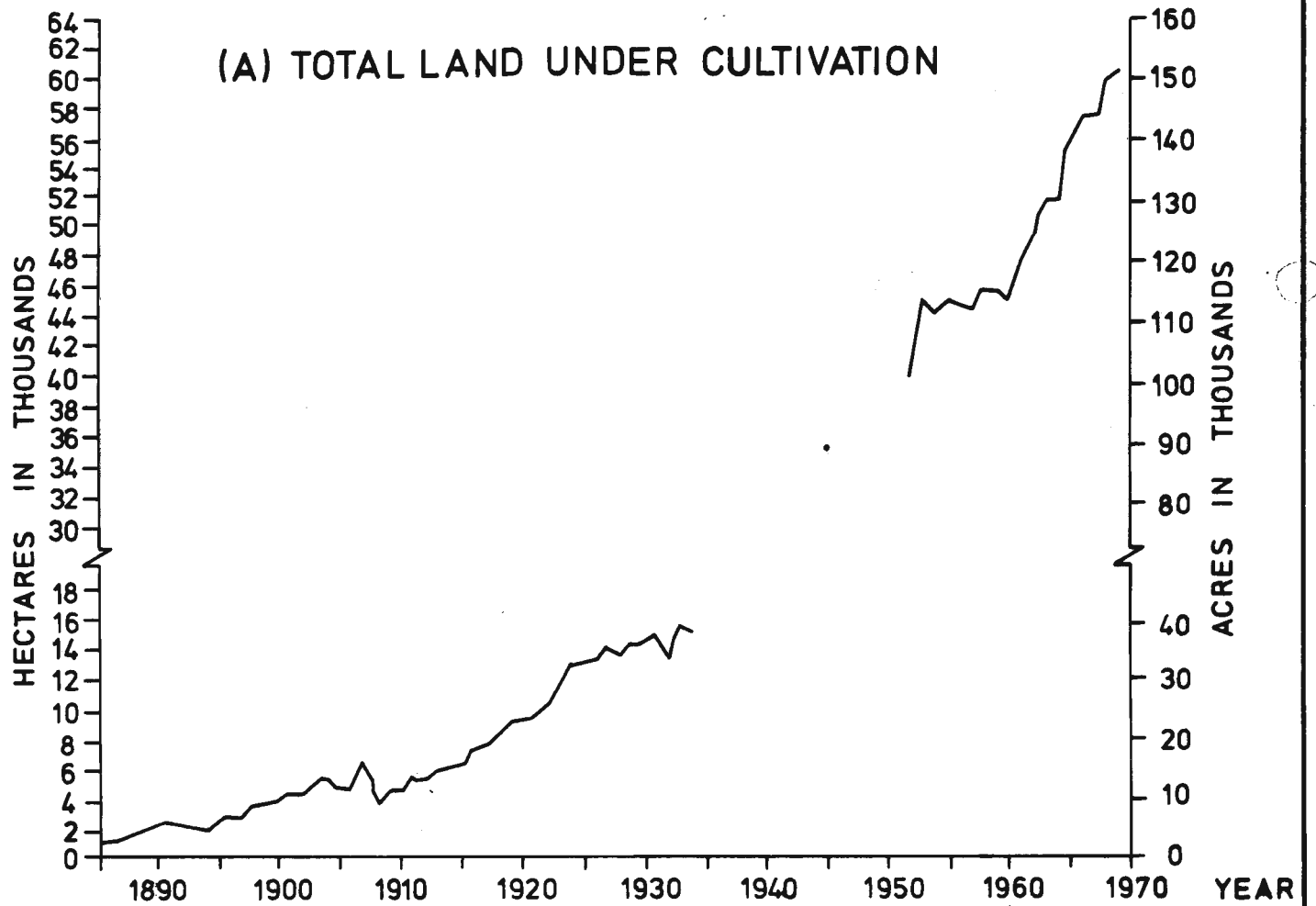


FIG. 3: JOHNSTONE DISTRICT

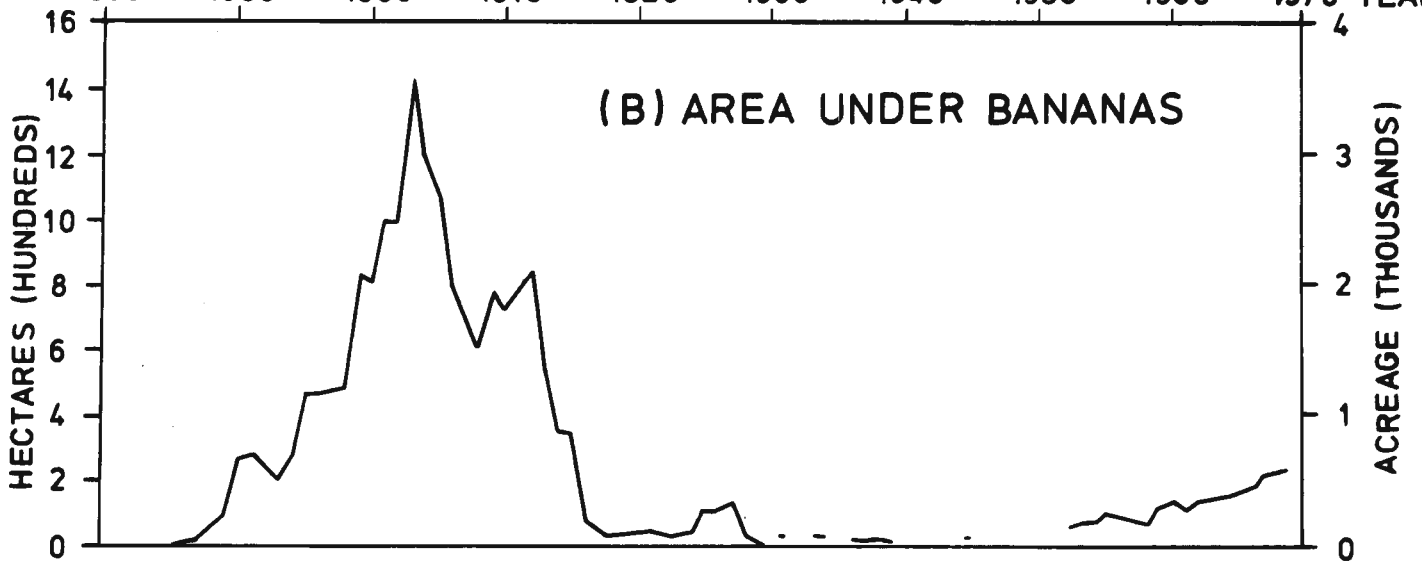
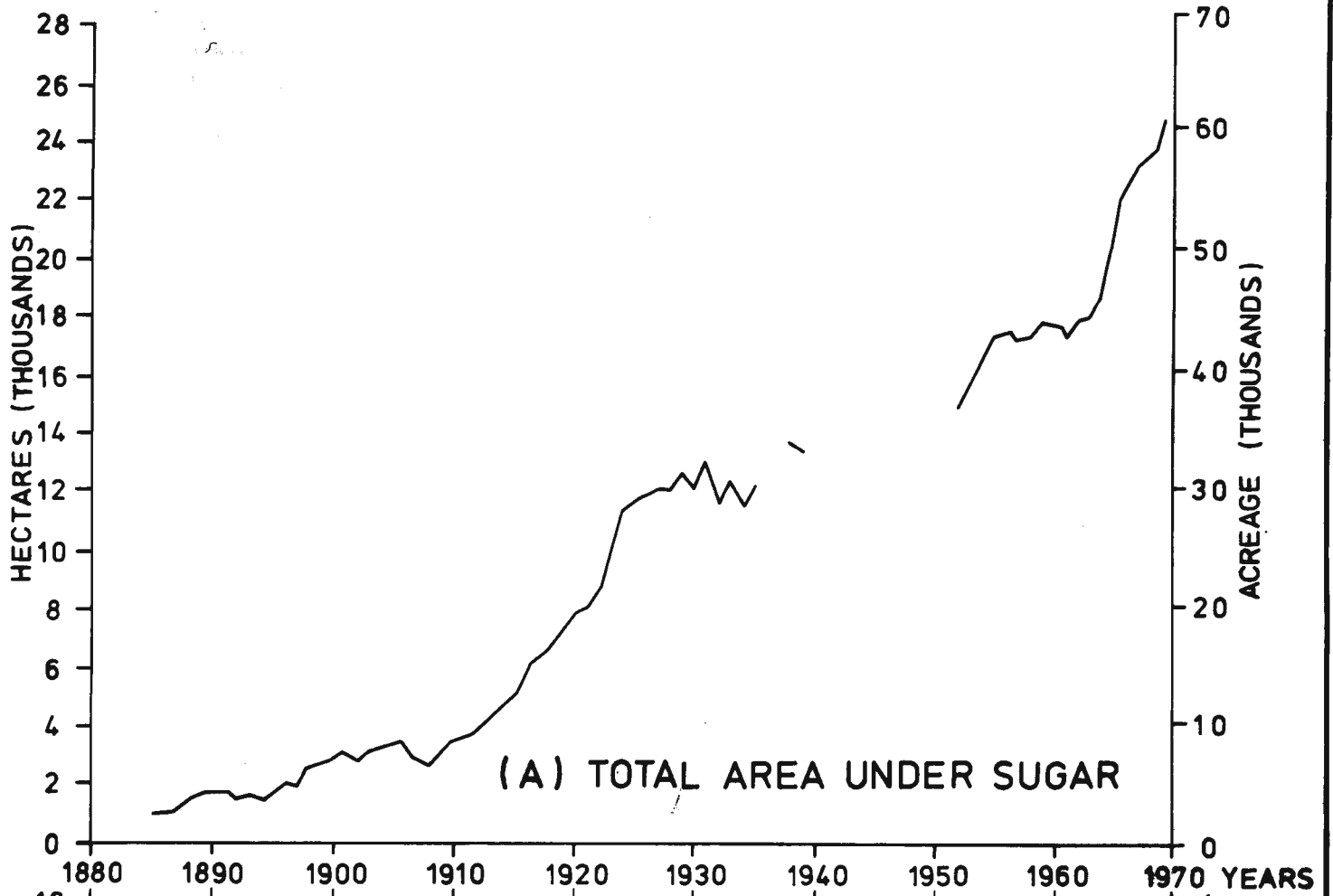
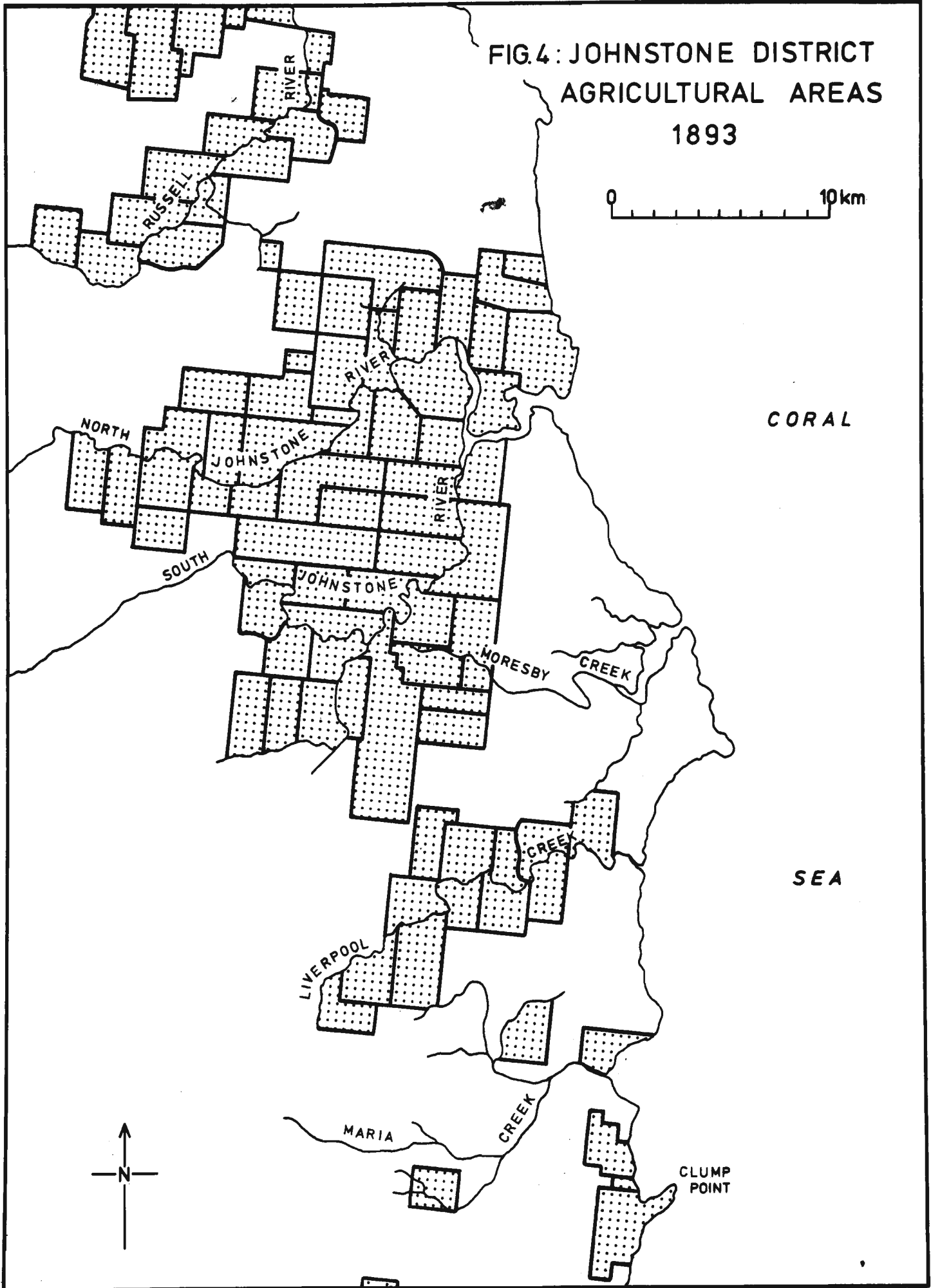


FIG.4: JOHNSTONE DISTRICT
AGRICULTURAL AREAS
1893



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1901 - 1945

The anticipation of the end of kanaka recruitment, despite the temporary reprieve following the Royal Commission's report, encouraged the re-organization of the district's sugar industry on the basis of large central mills the first of which were opened at Mourilyan in 1882 and Goondi in 1885. Federation in 1901, which was followed by the protection of Queensland sugar in the Commonwealth and the special government bounties for 'white' labour sugar, accompanied by the worldwide improvement in sugar prices, consequent upon the abolition by the Brussels Convention of 1902 of the European bounty system that had supported beet sugar production, both contributed to a new profitability for cane growing in the Johnstone district as elsewhere in Queensland. The fact that economics of scale are less important in cane cultivation than they are in raw sugar production (crushing) was of major importance in making economically possible the sub-division of the large sugar estates into small farms of between 80 and 100 acres for European settlers, which were assigned to a small number of large central mills for crushing. In 1915 the Babinda Mill was opened and in 1916 the South Johnstone Mill was ready for its first crushing of cane from the South Johnstone and Liverpool Creek districts. Former banana lands at Cowley were assigned to the Mourilyan Mill and a long tramline constructed. The increasing profitability of sugar growing brought about a drastic decline in banana production after 1905 which was adversely affected also by growing competition in southern markets from the Northern Rivers district of New South Wales and finally by the abandonment of the steamer service during the First World War. By 1919 there were only 51 acres (20 ha) under bananas, and 3717 bunches of fruit produced.

The opening of the South Johnstone mill was followed by a considerable expansion of cane growing made possible especially by a steady influx of Italian cane cutters some of whom had come to own farms by the end of the First World War. This expansion continued throughout the early and middle 1920s and the area under cane in the Johnstone district had reached 30,000 acres (12,145 ha) by the end of the decade, with cultivation as far south as Maadi. Similar expansion was taking place to the south

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where, in 1926, the Tully Co-operative Mill made possible the settlement of 300 farmers on country which previously had been a cattle run. Expansion was checked in 1929 by the introduction of the Peak Year Scheme and the depression years of the early 1930s were a period of reduced sugar acreages and, although mill peaks were increased in 1940 to make it possible for Australia to fulfill her export quota under the International Sugar Agreement, the following years of the Second World War were a further period of contraction for the industry.

The Post-War Period

The years since the end of the Second World War, despite considerable fluctuations in the world sugar market, have been periods of general expansion for the industry in the Johnstone district. A major increase in the area devoted to sugar from 31,170 acres (12,620 ha) in 1945 to 60,970 (24,684 ha) in 1969, can be divided into two periods - that of the late 1940s and early 1950s and that of the mid and late 1960s, separated by a period of little change between 1955 and 1963. More impressive even than the expansion of the area of sugar cane in the Johnstone district between 1945 and 1969 has been the increase in the volume of cane grown which, thanks to new varieties, better cultivation methods and the use of fertilizers, expanded by 224% whilst the area for crushing increased by only 102%. This represents an increased average yield of cane from 19.8 tons per acre (48.3 metric tons per ha) in 1945 to 31.7 tons per acre (77.3 m. tons per ha) in 1969.

Cane now occupies nearly all the low lying country with suitable soils in the district. Only in the Granadilla area of South Maria Creek valley is there a small tongue of alluvial soils currently still in use for grazing. Some small areas of the basalt soils that are under bananas or grazing could probably also be utilized for sugar, but generally speaking these are geographically marginal to the principal cane lands. In 1970-71, 742 of the 884 agricultural holdings in the Shire were growing sugar cane. These were not all solely under cane, however, since there has developed a tendency in recent years for a small number of cattle to be run on some sugar farms.

Small numbers of cattle were recorded in the Johnstone district in

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1885 when, in common with the early cattle industry in Far North Queensland as a whole, they were reared to satisfy the local demand. Numbers increased quite considerably during the first fifteen years of the twentieth century and then levelled off until the establishment of the Queerah export meatworks at Cairns in 1934. The stimulation of beef exports from the Far North Queensland region as a whole was reflected by a steep rise in cattle numbers in the Johnstone district especially after 1932. The years during and immediately after the Second World War were a period of some decline for the local cattle industry but the opening of the United States market in the late 1950s was followed by what has probably been the most rapid expansion of any one primary industry in the Shire since it has been settled.

The high rainfall experienced on the wet tropical coast allows a far more intensive form of cattle management than is possible in the more remote lower rainfall regions of North Queensland. Holdings devoted solely to cattle are concentrated on the hillier fringes of the settled parts of the district, especially in the Palmerston and Utchee areas, on the northern slopes of the Basilisk Range and in the Granadilla area. Cattle are run on sugar properties especially when holdings lie on the flanks of higher ground which is either unsuitable for mechanical harvesting or has not been assigned for sugar. Cattle and cane integrate well, since the labour demand for the grazing segment of a joint enterprise occurs in the wet season when the labour requirements of cane farming are at their minimum. The opinion has been expressed that, with some assistance at periods of peak activity, a farmer can successfully operate a joint cattle/cane holding. In a situation in which a land-holder's ability to increase his area under sugar, if his holding includes unused suitable land, is restricted because of the assignment system, the running of a few dozen head of beef cattle is one of the few ways in which he can expand his activities.

In addition to the very considerable increase in both the area under sugar cane and the volume of cane produced since the end of the Second World War, a major change in the industry of very great importance to the district has been increased mechanization. Although the successful








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use of cane cutting machine was reported in the southern United States as early as 1930, mechanization of field operations in the Queensland sugar industry dates from the years following the Second World War when acute labour shortages hastened the introduction first of mechanical loading and then of mechanical cutting. A large seasonal work force had always been required in the northern mill areas (Mossman to Ingham) and shortages of experienced labour were more frequent than elsewhere. In consequence, mechanization progressed especially fast in the north. The almost complete replacement of the manual harvesting labour force by mechanization has not resulted in any major decrease in the amount of employment provided by the industry since the changeover to mechanical harvesting took place in a period of increasing cane production. Mechanization has, nevertheless, brought a considerable change in the nature of the employment, and consequently of the labour force. Before mechanization, the harvest labour force included a large proportion of itinerants, most workers were men in their twenties and early thirties with a smaller proportion older than 35 years and very few under 21. There was much wastage of skilled labour, with the core of experienced cutters each season at times only 50 per cent or less of the total. Since the widespread adoption of mechanized harvesting more young men (under 21) than previously are accepting harvest work, local sources now provide the bulk of the labour required and the industry no longer has to rely on the recruitment of itinerant labour. As a result of these changes a more stable and experienced work force is available for the annual harvest, and local employment has benefited from the wider range of less manually arduous jobs available for local men.







Since 1950 banana growing has shown a sustained though gradual increase in importance and locally in the Mission Beach-Bingil Bay district is the mainstay of farming. The recent revival of the banana industry dates from the later 1940s when special rail transport facilities were introduced by the Committee of Direction of Fruit Marketing (C.O.D.), and has been strongly assisted by the improvement in the road links between this coastal area and the railhead at El Arish. A more scientific approach to banana growing, both to improve quality and to reduce production costs, accompanied the revival of the industry which also attracted a group of growers from the

JOHNSTONE SHIRE - AGRICULTURAL LAND USE

NON-AGRICULTURAL USES

-  URBAN LAND
-  Land Primarily Under Natural Vegetation Cover
-  STATE FOREST AND RECREATION RESERVE
-  OTHER VACANT LAND
-  VACANT CROWN LAND
-  MILITARY USE
-  MANGROVES

AGRICULTURAL USES

-  TEA
-  BANANAS
-  SUGAR CANE
-  GRAZING-DAIRYING
-  GRAZING-FATTENING
-  EXPERIMENT FARM, POULTRY, PINEAPPLE

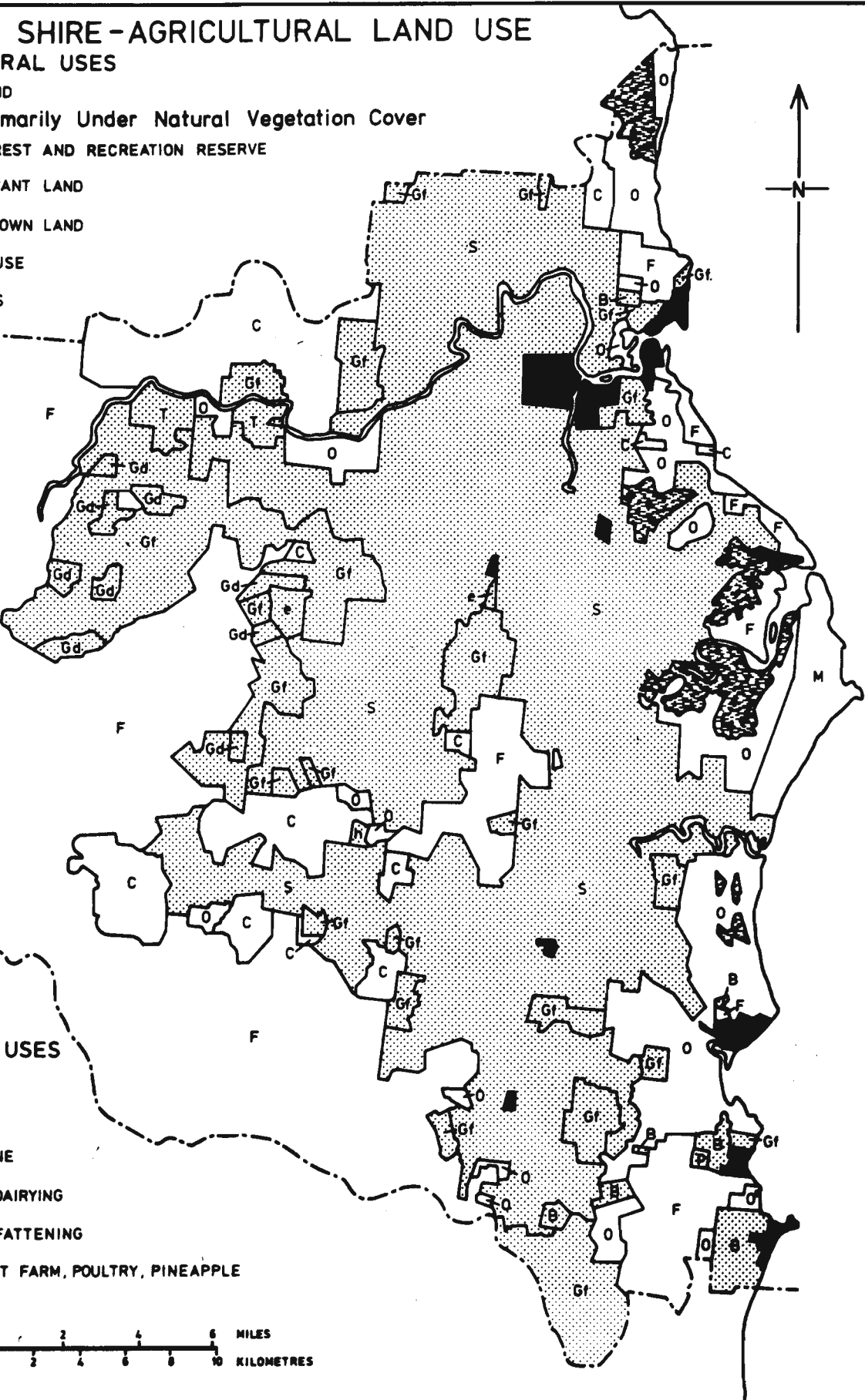


FIG. 5. JOHNSTONE DISTRICT - AGRICULTURAL LAND USE 1971

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New South Wales Northern Rivers' banana district.

It is clear from this brief review of the agricultural development of the Johnstone district that this part of the North Queensland coast has cleared and settled its agricultural lands, built up a substantial population (so that the Johnstone shire now has the highest average rural population density of any local government area in Queensland) and developed its townships predominantly on the basis of the sugar industry. At the present time this industry, directly or indirectly, supports about 85 per cent of the district's population. Despite the desirability of economic diversification, and amongst other activities the tourist industry has good prospects, the general prosperity of the Johnstone district rests as firmly on the sugar industry in the 1970s as did Fitzgerald's hopes for personal fortune in the 1880s.

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