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Changing rural spaces: deregulation and the decline of tobacco farming in the Mareeba-Dimbula Irrigation Area, Far North Queensland.

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ABSTRACT  The growing of tobacco was one of the most tightly regulated industries in Australia, until deregulation in 1995. Commonwealth regulations controlled the area cultivated with tobacco, the number of growers (ie quota holders) and marketing arrangements for tobacco leaf. This paper begins by outlining the nature and historical development of controls in the tobacco growing industry, and discusses how the Commonwealth government removed the industry’s regulatory and protective framework in 1995. The third part of the paper examines how deregulation has impacted upon the Mareeba-Dimbulah Irrigation Area, Far North Queensland, where small farmers produced sixty per cent of Australia’s tobacco in 1995. The discussion will show that the agricultural landscape once dominated by tobacco has been transformed, as local farmers abandoned growing tobacco in favour of sugar cane, avocadoes, mangoes, macadamia nuts and other small vegetable crops (eg navy beans, pumpkins). Tobacco, once promoted by the Queensland government as a crop to facilitate closer settlement in the Mareeba-Dimbulah Irrigation Area, will have almost vanished from the landscape by 2002.

KEY WORDS  deregulation; Mareeba-Dimbulah Irrigation Area; mixed horticulture; tobacco; sugar cane; avocadoes
Introduction

In 1992, Remzi Mulla, Chairman of the Tobacco Leaf Marketing Board of Queensland, in his annual report noted it was ironic that tobacco growing was established in the Mareeba-Dimbulah district by the State and Federal governments and had been encouraged by them through history to expand and replace imports. He concluded, “now government actions are destroying the industry” (Tobacco Leaf Marketing Board of Queensland, 1992, p. 7). Mulla’s observations and concerns were justified. In January 2001, he advised the remaining tobacco growers in the Mareeba-Dimbulah Irrigation Area (MDIA) that they may not be able to grow any more tobacco after 2001, as one of Australia’s two cigarette manufacturers, British American Tobacco, had declined to buy tobacco from the region. In the space of less than a decade, the MDIA had gone from producing almost sixty per cent of Australia’s tobacco crop and having the highest tobacco yield of any growing region to the point where a very limited amount of tobacco will be cultivated in 2002.

Declining domestic demand for tobacco caused by public concern about the health risks associated with smoking and increased taxation upon tobacco products, together with deregulation of the Australian tobacco growing industry in 1995, is blamed for the substantial downturn in tobacco cultivation in the MDIA.

To date, the impact of deregulation on the Australian tobacco growing industry has not attracted the attention of agricultural geographers. This paper, therefore, is a case study which analyses how the Australian government’s pursuit of more liberalised agricultural trade and the integration of the Australian national economy into the international economy has impacted upon tobacco growing in one Australian tobacco growing region in Far North Queensland. The first aim of the paper is to describe the development of regulatory controls in the Australian tobacco growing industry and to
answer the question why did tobacco growing develop into one of the most tightly regulated rural industries in Australia? The second aim is to examine how these regulations were dismantled during the 1990s and the subsequent restructuring that has occurred in the Australian tobacco growing industry. Reconstruction of the changing cropping patterns in the MDIA immediately preceding and following deregulation of the tobacco industry in 1995 is the third aim of this paper. This part of the paper will show how the agricultural landscape of the MDIA, once dominated by tobacco, was transformed as farmers abandoned tobacco growing in favour of sugar cane and mixed horticulture. The information used to reconstruct these changes has been assembled from Industry Commission inquiries, government reports, cropping data gathered by officials from the Queensland Department of Natural Resources and Mines and field interviews.

**Deregulating Australia’s agricultural sector**

Tobacco and many other Australian rural industries (eg sugar; dairying, wheat), until quite recently, were highly regulated. Regulations controlled grower-processor relationships, marketing of products and production output, while tariffs protected local producers against imports. In addition, the farmers’ own party, the Country Party (now National) was in government with its senior coalition partner, the Liberal Party. As a result, argues Geoffrey Lawrence (1989, p.235), “the state, ever conscious of agriculture’s crucial role in Australia’s balance of trade, continued to underwrite agriculture.” Funding for irrigation schemes, infrastructure such as beef roads and input subsidies designed to promote the use of more fertiliser, together with regulated marketing arrangements, ensured Australian rural industries all prospered and expanded their output after the Second World War (Scott 1987, p. 210)
Since the mid 1970s, Commonwealth governments of both political persuasions have slowly no longer perceived the need for agriculture to be afforded the privileged status it had acquired during the Menzies era. The Industries Assistance Commission (later Industry Commission) from the mid-1970s onwards reviewed the level of support and statutory marketing arrangements of primary products in Australia (Industries Assistance Commission (IAC) 1991, pp. 137-148; IC 1992; IC 1993; IC 1994). As a result of the Commonwealth government accepting some recommendations from these reports, and efforts by both State and Commonwealth governments to implement national competition policies (Hilmer reforms), the Australian egg, sugar, wheat, dairying and tobacco industries, to list but a few, have been subjected to partial or full deregulation during the 1990s (IC 1995, pp. 87-101; Robinson 1995; Pritchard 1998).

Observers of this trend have interpreted declining state support for agriculture differently. Le Heron (1993, pp. 168-169) views deregulation as part of governmental activity aimed at seeking greater international liberalisation of agricultural trade. Unassisted Australian rural exporters have historically encountered trade barriers. Tariff and non-tariff barriers restrict the potential consumers of Australian agricultural produce. Reduced regulation and protection of the Australian agricultural sector means Australia can lobby for reduced global protectionism. Share et al. (1991, pp. 5-6) suggest that reduced state support for agriculture is part of the strategy adopted by the Australian government to use transnational agribusinesses help solve the current “rural crisis.” State supported marketing authorities, subsidies and stabilisation policies once gave farmers a strong bargaining position, but have been identified as a barrier to the integration of farming and agribusiness. Hence the introduction of
polices which removed them. McMichael (1994, pp. 1-4) considers declining national regulation a feature of late twentieth century agricultural restructuring. Other features include increasing specialisation in food production, the development of niche markets for both fresh and processed food and the growth in contract farming. Burch et al. (1996, p. 1-2) observe that many of the defining features from this list are found in the Australian agricultural and food sector.

Theories to explain declining state support for agriculture have also been accompanied by investigations into the impact these changes have had at local levels. Researchers argue Burch et al. (1996, p. 1) should not assume that global processes have a "homogenising influence throughout the world." For Australasia, studies of the impact of deregulation upon the agro-food chain have focused mostly upon the rationalisation in the number of processors of food products (see for example Britton et al. 1992, pp. 107-114; Pritchard 1996; Pritchard 1998; Doucouliagos and Hone 2000). Fewer studies have been completed upon the impact of deregulation upon the suppliers of agricultural products. Investigations have been carried out into the impact of the withdrawal of state mediation in grower-processor relationships in the Victorian tomato-processing industry and the partial deregulation of the Queensland sugar industry. Both studies revealed that deregulation accelerated the trend towards fewer suppliers farming bigger areas (Robinson 1995, pp. 221-222; Burch and Pritchard 1996, pp. 112-114). A similar trend has been observed amongst Australian dairy farmers, following deregulation of the Australian milk industry in 2000. Very recent newspaper articles have reported that smaller dairy farmers are being squeezed out of the industry in favour of producers with larger herds of dairy cattle (Bolt 2000, p. 19; Karvelas 2001, p. C22). Yet the Productivity Commission’s investigation into
the impact of competition policy reforms on rural and regional Australia concluded that apart from the experience of the main tobacco growing region in Queensland (ie Mareeba-Dimbulah), other regions experiencing the loss of statutory marketing arrangements had “not been subject to lingering negative effects from deregulation” (Productivity Commission, 1999, p. 210).

The development of regulatory controls in the Australian tobacco-growing industry

Tobacco is a versatile crop that can grow in a range of environments, but prefers well-drained, less fertile sandy soils, uniformity of temperatures during the growing season, absence of frost, and adequate and regular rainfall or irrigation in the late spring and summer growing period (Buchanan 1975, p. 28). This versatility, together with generally high returns from small blocks of land, meant Australian colonial governments promoting closer settlement during the nineteenth century viewed tobacco growing favourably. As a result, the New South Wales, Victorian and Queensland governments all assisted tobacco growing by imposing tariffs on tobacco imported into their colonies and hired technical experts to provide assistance to tobacco farmers. By 1900, tobacco growing areas had been established in the following localities: Ashford, Tenterfield, Tamworth and Tumut, New South Wales; Texas, Inglewood and Bowen, Queensland; and Myrtleford, Victoria (Muir 1971, p. 8; Robertson 1973, pp.122-128; Skerman, Fisher and Lloyd 1988, pp. 61-62).

During the first three decades of the twentieth century, tobacco continued to be grown in most areas where it had become established in the late nineteenth century, although new tobacco-growing districts had emerged in the Manjimup, Beerwah and Mareeba-Dimbulah regions by 1932 (Burvill 1979, pp. 53-54; Beal 1971, p. 8). Australian
tobacco, however, was always considered inferior to imported American leaf, and judged not suitable for export. Moreover, Australian smokers did not like the characteristics of locally produced leaf, for its smoking aroma was characterised as “unusually strong and unpalatable” (Fadden 1932, p. 7). Continued Commonwealth government tariffs on imported tobacco was vital to a domestic tobacco farming industry surviving. Thus, when the Lyons Government removed the tariff on imported tobacco leaf and doubled excise charges on tobacco products in 1932, the area under tobacco in Australia slumped from 10 530 ha in 1932/33 to 3 400 ha in 1934/35 (Tyrell 1999, pp. 97-98; *Australian Yearbook* 1936, p. 697). In response to tobacco grower hardship, the Commonwealth government decided in 1936 to introduce a Percentage Leaf Usage Requirement or local leaf content scheme. This scheme encouraged Australian manufacturers to use Australian grown tobacco by providing tariff concessions on imported leaf to manufacturers who used a specified minimum amount of local leaf in their output. The initial local leaf proportions required to gain duty concessions on imported leaf were 2.5 per cent (cigarettes) and 13 per cent (cut tobacco) (IC 1994, D3).

The local leaf content scheme did little to encourage Australian farmers in the late 1930s and 1940s to grow tobacco. To stimulate domestic leaf production, the Commonwealth government during the 1950s increased the amount that had to be used by local manufacturers to receive tariff concessions to 22 per cent (cigarettes) and 23 per cent (cut tobacco). Australian farmers, both existing and new, now responded and planted more tobacco, resulting in the area under tobacco in Australia almost quadrupling from 3 318 ha in 1951-52, to just under 12 000 ha in 1962-63.
Figure 1. The Mareeba-Dimbula Irrigation Area and other current and previous tobacco growing districts in Eastern Australia.

Source: Based upon a ‘Map of tobacco growing districts in Australia, 1960-61,’ in *Australian Tobacco Growers Bulletin*, No. 2, 1961, p. 17, and Figure 4.6 in Courtenay 1982, p. 151.
Scientific and technical assistance was also provided by CSIRO and state-based Departments of Agriculture (Johnson and Foale 1985, pp. 117-118; Burvill 1979, p. 54; Mylrea 1990, p. 104; Skerman, Fisher and Lloyd 1988, pp. 212 & 220). Clare and Bundaberg-Miriam Vale also emerged as new tobacco-producing districts in the 1950s (Figure 1), although farmers in the former region had abandoned the crop by the mid-1960s in favour of sugar cane due to disease problems and unsuitable soils (Kerr 1994, pp.235-238). Tobacco cultivation around Manjimup had also ceased by the mid-1960s, after Australian manufacturers increasingly refused to buy Western Australian tobacco leaf because of its high chloride content (Burvill 1979, pp. 53-54).

Underpinned by the above protectionist measures, domestic tobacco leaf production soared from 2.7 million kilograms in 1955 to 15.5 million kilograms in 1963, although the output involved large quantities of low quality leaf. Disputes over grading and pricing procedures at leaf sales and low quality leaf led to increasing conflicts between growers and manufacturers. These difficulties were highlighted in 1961, when 2 million kilograms of leaf remained unsold (IC 1994, p. D5). Growers and manufacturers united, proposing a plan to Commonwealth and State Ministers to control the production and marketing of Australian tobacco leaf to achieve a balance between supply and demand for the product. The Commonwealth and State governments accepted this proposal, and the first four-year Tobacco Industry Stabilisation Plan commenced in the 1965 season. The aim of the TISP was to “provide growers with an assured market, whilst protecting manufacturers from any further over-rapid and indiscriminate expansion of the local growing industry” (IC 1994, p. D5).
The Tobacco Industry Stabilisation Plan was administered by the Australian Tobacco Board (renamed Australian Tobacco Marketing Advisory Committee – ATMAC- in 1988) set up under Commonwealth legislation, the *Tobacco Marketing Act* of 1965. Complementary state legislation (for example in Victoria the *Tobacco Leaf Stabilisation Act* of 1966), conferred appropriate powers over the marketing of Australian tobacco leaf on the Board. The Stabilisation arrangements provided for a national marketing quota for Australian flue-cured tobacco and an average minimum price for quota leaf to be determined each year by the Australian Agricultural Council on the recommendation of the Australian Tobacco Board. The Board’s quota recommendations reflected consumption trends and manufacturer’s stock, while minimum average prices took account of international prices. The Agricultural Council also suggested the division of the national marketing quota between the producing States, each of which had statutory quota committees to issue marketing quotas to individual growers. Growers were initially allocated a basic quota, based on delivery in previous seasons, but adjusted annually to take into account any quota transfers between growers. Extensive regulations controlled the transfer of quota within and between states and the acquisition of additional quota by individual growers (see IAC 1987, p. 2.7). A statutory Tobacco Leaf Marketing Board, subject to the Australian Tobacco Board’s directions, marketed the tobacco leaf produced in each state and administered quota transfers. Manufacturers continued to operate under the local leaf content scheme initially based on a 50 per cent percentage leaf usage requirement, although after 1977 the manufacturers voluntarily agreed to 57 per cent local content. Manufacturers were required to purchase all quota leaf offered for sale (IC 1994, p. D 6; Goldsworthy 1996, p. 2).
The regulatory arrangements introduced in 1965-66 changed little over the next thirty years, being maintained by a succession of five-year Tobacco Industry Stabilisation Plans (the last one being 1989-93, but extended to 1995). The stabilisation arrangements “fossilised” the production pattern, between States and between producing areas. Hence, the tobacco-producing areas existing in 1965, were still present in 1995, except in Queensland where tobacco had ceased to be cultivated at Bundaberg and Miriam Vale. In addition, the regulations perpetuated an artificial market environment in which growers and manufacturers were insulated from market forces. Under these arrangements, Australian tobacco growers had no opportunity to compete with each other on the basis of the quality or type of leaf produced, or on price. Their main aim became producing a given quantity of tobacco at least cost (IC 1994, p. 4). Moreover, this regulatory framework made adjustment difficult for the Australian tobacco growing industry when the socio-economic climate began to rapidly change during the 1980s.

Deregulating the Australian tobacco industry

Domestic demand for tobacco leaf fell during the 1970s and 1980s, as public concern about the health risks associated with smoking gathered momentum, and the Commonwealth government increased the retail prices of tobacco products (IC 1994, pp. D10 & D11; Tyrell 1999, p. 200-201). Politicians and ex-politicians increasingly expressed concern about the high level of assistance provided to tobacco growers. In response to these concerns, the Fraser and Hawke Governments in late 1981 and 1986 respectively requested that the Industries Assistance Commission determine what level of assistance should be provided to the Australian tobacco growing and manufacturing industries. After both inquiries, the Industries Assistance Commission
recommended that that the local leaf content scheme, leaf marketing quotas and administered pricing arrangements should be gradually dismantled (IC 1994, D7 & D8). The Commonwealth government in 1983 and again in 1988 decided not to deregulate the Australian tobacco growing and manufacturing industries, arguing that such moves would cause severe disruption to tobacco production in Australia. The Commonwealth government believed that the industry’s performance could be improved within the framework of existing arrangements, and preferred to introduce two Tobacco Industry Stabilisation Plans (1984 -1988 & 1989 – 1993). Late in 1992, ATMAC sought the approval of the Commonwealth and three State governments to extend the 1989-1993 Stabilisation Plan for another two years, in order to provide additional time to finalise alternative marketing arrangements to apply from the 1996 selling season. Formal approval of the extension was granted on 30 July 1993 (ATMAC 1994, p. 8; IC 1994, p. 43). Under these arrangements, the Australian tobacco growing industry was asked to improve leaf quality, encourage the production of tobacco leaf in the most suitable areas via transfers of quotas, reduce the gap between Australian and international prices for tobacco leaf and reduce manufacturers stock holdings from thirteen to ten months.

At the announcement of the implementation of the Tobacco Industry Stabilisation Plan of 1989-93 in November 1988, the Commonwealth government indicated another Industries Assistance Commission inquiry would be held into the level of assistance for the tobacco industry in 1993. There would, however, be no further extension of the local leaf content scheme (IAC 1994, p. D8). In November 1993, the Industry Commission began its inquiry into the Australian tobacco growing and manufacturing industries. Tobacco industry participants maintained that some
objectives of the two final Tobacco Industry Stabilisation Plans had been met. The amount of tobacco leaf produced had been reduced, and the number of quota holders had declined, leaving fewer farmers growing larger crops (Tables 1 & 2). Quotas had been transferred mainly from New South Wales to the MDIA – one region most suited to tobacco growing. The Industry Commission responded by noting that prices for Australian produced tobacco had not been reduced to world parity, and that manufacturers’ stock had not decreased, but increased to the equivalent of 13.2 months usage in 1992 and 14.3 months in 1993 (IC 1994, pp. 44 – 47).

Table 1. Production of tobacco leaf (’000 kilograms) in Australia, 1982-1997

<table>
<thead>
<tr>
<th>Year</th>
<th>New South Wales</th>
<th>Victoria</th>
<th>Queensland</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>854</td>
<td>3960</td>
<td>7678</td>
<td>13944</td>
</tr>
<tr>
<td>1985</td>
<td>727</td>
<td>5212</td>
<td>7611</td>
<td>13549</td>
</tr>
<tr>
<td>1991</td>
<td>637</td>
<td>4997</td>
<td>7700</td>
<td>13334</td>
</tr>
<tr>
<td>1994</td>
<td>556</td>
<td>5003</td>
<td>7859</td>
<td>13418</td>
</tr>
<tr>
<td>1997</td>
<td>338</td>
<td>3011</td>
<td>4751</td>
<td>8100</td>
</tr>
</tbody>
</table>


Table 2. Changes in the number of tobacco quota holders in Australia, 1983-1993

<table>
<thead>
<tr>
<th>Year</th>
<th>New South Wales</th>
<th>Victoria</th>
<th>Queensland</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>65</td>
<td>304</td>
<td>593</td>
<td>962</td>
</tr>
<tr>
<td>1985</td>
<td>36</td>
<td>267</td>
<td>512</td>
<td>815</td>
</tr>
<tr>
<td>1987</td>
<td>30</td>
<td>245</td>
<td>459</td>
<td>734</td>
</tr>
<tr>
<td>1989</td>
<td>28</td>
<td>243</td>
<td>432</td>
<td>703</td>
</tr>
<tr>
<td>1991</td>
<td>23</td>
<td>217</td>
<td>385</td>
<td>625</td>
</tr>
<tr>
<td>1993</td>
<td>25</td>
<td>206</td>
<td>377</td>
<td>608</td>
</tr>
</tbody>
</table>

The Industry Commission released its final report into the Australian tobacco growing and manufacturing industries in September 1994. The main recommendation was that the tariff on all imported tobacco leaf be 25 per cent in the first year, reducing to five per cent by 2002 (IC 1994, p. 8). In response to the IC’s report, the tobacco growing and manufacturing industries recommended to governments a restructuring package that was accepted by the State and Commonwealth governments on 13 December 1994. The main feature of the package was substantial deregulation of the tobacco growing industry’s protection and marketing arrangements (Table 3). In return, the Australian tobacco manufacturers agreed to make a $10.8 million contribution to the restructuring of the tobacco growing industry to ensure continuity of supply and assist in the achievement of high quality leaf at the lowest cost. The governments of Queensland, New South Wales and Queensland matched this funding (ATMAC 1994, pp. 8-9).

Table 3. Measures introduced in 1995 to deregulate the Australian tobacco growing and manufacturing industries

<table>
<thead>
<tr>
<th>Regulatory element as at 13.12.94</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tariffs on imports of tobacco leaf, manufactured tobacco and tobacco products.</td>
<td>Free of import tariffs after 1.1.95</td>
</tr>
<tr>
<td>Local leaf content scheme</td>
<td>Terminated on 31.12.94</td>
</tr>
<tr>
<td>Australian Tobacco Marketing Advisory Committee (ATMAC)</td>
<td>Wound up on 3.7.1995</td>
</tr>
<tr>
<td>Tobacco Leaf Marketing Boards</td>
<td>Abolished; manufacturers negotiate with individual grower groups</td>
</tr>
</tbody>
</table>

Source: Based upon details in ATMAC 1994, p. 8.
Immediately preceding and since deregulation, the Australian tobacco growing industry has undergone further restructuring. In New South Wales, tobacco farming ceased after growers were paid by the New South Wales government to exit the industry during 1994-95 (ATMAC 1994, p. 12). The Victorian government provided a $3 million grant to finance quota retirement during 1993-94, resulting in sixty-eight growers exiting the industry. Under the *Victorian Tobacco Industry (Deregulation) Bill* of 1994, the remaining 130 tobacco farmers received shares in the newly constituted Tobacco Co-operative of Victoria, which has taken over the marketing responsibilities of the Victorian Tobacco Leaf Marketing Board (Goldsworthy 1996, pp. 6-8). Implementation of the Tobacco Industry Restructuring Package in Queensland during 1995 resulted in 127 quota holders surrendering their entitlement to grow tobacco, including all those tobacco farmers in the Texas and Inglewood districts. The remaining Queensland tobacco growers were located in the MDIA or at Beerwah. Under the *Queensland Tobacco Restructuring Act of 1996*, the assets and liabilities of the Queensland Tobacco Leaf Marketing Board were transferred to the MDIA tobacco growers who formed the Queensland Tobacco Marketing Cooperative Association Ltd (QTMCA). This organisation has for the last five years negotiated contracts with the cigarette manufacturers for the annual sale of the tobacco leaf produced in the MDIA. The six tobacco growers at Beerwah formed the South Queensland Tobacco Growers Cooperative Association in 1995 and have negotiated contracts for the sale of their tobacco with a cigarette manufacturer (Tobacco Leaf Marketing Board of Queensland 1995, p. 5; pers. comm., Peter Soda, QTMCA).
Impact of tobacco industry regulation and deregulation on the Mareeba-Dimbulah area

The Mareeba-Dimbulah area is located approximately fifty kilometres west-southwest from Cairns on the Far North Queensland coast. Physically the area’s soils are very suited for the growing of tobacco, being well drained and of low fertility, having been derived from coarse-grained granites. Attempts to establish a tobacco-growing industry in the 1930s were plagued by disease and variable summer rainfall (Beal 1971, pp. 8-9). As a result, most of the tobacco farms in the hilly country away from the streams went out of production, and the bulk of the tobacco growing became concentrated on the farms adjacent to the main streams where some irrigation water could be obtained. Many of the earliest tobacco growers produced only one good crop in five (Murray 1967, pp. 37-38; Queensland Department of Primary Industries 1978, p. 61).

To assist the remaining tobacco farmers, the Queensland Irrigation and Water Supply Commission built six small weirs on the main streams in the late 1940s and early 1950s. A report by the Queensland Bureau of Investigation of Land and Water Resources in 1946 recommended the construction of a sizeable irrigation scheme to protect the “labour, capital and hope already invested in the district” (Murray 1967, p. 39). Eventually, the Queensland government in 1955 approved the construction of a major dam with a storage capacity of just over 400 million cubic metres above Tinaroo Falls on the Barron River. This project and associated irrigation channels was completed in 1958. The guaranteed provision of water to farms on the southern bank of the Walsh River and between Mareeba and Walkamin (Figure 1), resulted in the elevated granitic soils, well suited to tobacco, but abandoned by early farmers.
because of water shortages, being brought back into cultivation. The use of alluvial soils was also extended. Hence, the area under tobacco rose rapidly from 1 860 ha in 1958-59 to 4 730 ha in 1962-63 (Queensland Department of Primary Industries 1978, p. 62). Further expansion in tobacco growing was halted prematurely by the introduction of the Tobacco Stabilisation Scheme in 1965. Plantings of tobacco in the MDIA were limited to less than 4 000 ha per year, requiring development of existing farms to cease, as most individual quotas were less than had been previously produced on these farms. The sale of the remaining new tobacco farms that had been designed and surveyed was also stopped (McDonald 1974, p. 4).

Not all soils in the MDIA were suited to tobacco cultivation. The Queensland Department of Primary Industries established the Walkamin Research Station in 1961 to investigate the potential of other crops in the shire. Peanuts, sorghum and maize were found to grow satisfactorily in the district (Skerman, Fisher and Lloyd 1988, pp. 212 & 221). Thus during the 1970s, some tobacco farmers began trying other crops and enterprises on their properties, including seed production, the growing of peanuts and soya beans and the raising of cattle. Other landholders pioneered the growing of rice, maize and sorghum on non-tobacco soils (Queensland Department of Primary Industries 1978, pp. 64 & 68-69; McKeague 1979, p. 27). By the mid 1980s, cereals for legumes (ie. rice, sorghum, maize), pastures for seed or hay and peanuts made up 45 per cent of the cropped area in the MDIA. Another third of the cropped area in the MDIA was devoted to tobacco (Table 4).\(^1\) However, of the 396 agricultural establishments identified in the MDIA in 1986-87, just under 80 per cent were classified as tobacco farms (ABS 1986/87). Moreover, a survey of tobacco growers throughout Australia in 1990 found that the MDIA had the highest proportion of specialist tobacco growers (ie receiving over 95 per cent of their farm income from
Table 4. Area (ha) under crops in the Mareeba-Dimbulah Irrigation Area, 1986/87 to 1998/99

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>2652</td>
<td>2422</td>
<td>2373</td>
<td>1940</td>
<td>1470</td>
<td>1552</td>
<td>1013</td>
</tr>
<tr>
<td>Cereals for grain+</td>
<td>2078</td>
<td>2528</td>
<td>2535</td>
<td>991</td>
<td>1463</td>
<td>1640</td>
<td>273</td>
</tr>
<tr>
<td>Peanuts</td>
<td>631</td>
<td>484</td>
<td>1073</td>
<td>869</td>
<td>1330</td>
<td>1319</td>
<td>318</td>
</tr>
<tr>
<td>Sugar cane</td>
<td>287</td>
<td>105</td>
<td>308</td>
<td>1663</td>
<td>3488</td>
<td>4143</td>
<td>4645</td>
</tr>
<tr>
<td>Orchard fruit &amp; nuts</td>
<td>992</td>
<td>1426</td>
<td>2413</td>
<td>2726</td>
<td>4190</td>
<td>4303</td>
<td>3808</td>
</tr>
<tr>
<td>Vegetables</td>
<td>333</td>
<td>402</td>
<td>1000</td>
<td>585</td>
<td>1461</td>
<td>1431</td>
<td>462</td>
</tr>
<tr>
<td>Pasture</td>
<td>1102</td>
<td>859</td>
<td>2733</td>
<td>2770</td>
<td>1801</td>
<td>1648</td>
<td>1420</td>
</tr>
<tr>
<td>Other *</td>
<td>302</td>
<td>461</td>
<td>1304</td>
<td>1151</td>
<td>1036</td>
<td>916</td>
<td>1641</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8377**</td>
<td>8687</td>
<td>13739</td>
<td>12695</td>
<td>16190</td>
<td>16957</td>
<td>13588</td>
</tr>
</tbody>
</table>

+ Includes rice, sorghum and maize.
* Includes nurseries, herbs, coffee, tea tree, cut flowers and turf.
** Excludes lucerne and other permanent pasture for 1986-87 and 1988-89.

Source: Data for 1986-87 and 1988-89 comes from ABS, *Crops and Pastures, Queensland*, Cat. No. 7321.3; data for other years compiled from surveys undertaken by water meter readers from the Queensland Department of Natural Resources and Mines.
tobacco). Three quarters of the tobacco farmers in the MDIA were considered to be specialist producers (IC 1994, p. 30).

By the late 1980s, the MDIA tobacco farmers were receiving mixed messages from the Commonwealth and Queensland governments. On one hand, they were advised to become more efficient, bigger and improve yields. Capital to assist them achieve this goal were available from the Queensland $10 million Tobacco Industry Assistance Scheme. These funds had been set aside by the Queensland government in its 1988-89 budget over a four year period to assist the Queensland tobacco growing industry restructure its operations and become more efficient, following the introduction of a State wholesale/retail licence fee on tobacco products. To assist individual tobacco farmers, the Queensland Department of Primary Industries at Mareeba in 1991 instigated a three-year Model Farm Program, involving fifteen MDIA farms and aimed at fast-tracking new cultivation and farm management techniques on tobacco farms (Manning 1993, p. 194; Tonello et al. 1995). MDIA tobacco farmers accepting grants under the Queensland Tobacco Industry Assistance Scheme could use the funds to purchase quota from other tobacco growers wishing to exit the industry or purchase equipment specific to tobacco growing (ie mechanical harvesters, barns, irrigation). However, they were not allowed to sell their quota within three years of receiving the grant to stop speculation in quota trading. On the other hand, MDIA tobacco farmers were also being encouraged to diversify or cease tobacco growing, due to the expected reduction in the demand for tobacco. Funds to assist them achieve this goal were also available under the Queensland Tobacco Industry Assistance Scheme (IC 1994, pp. D9 & F1 - F4).
Realistically, options for the MDIA tobacco farmers who wished to exit the industry or diversify were limited. They had some of the best soils in Australia for growing tobacco, but it was not well suited for other crops. The small average size of tobacco farms in the MDIA – 30 to 40 ha in 1993 (IC, 1994, p. 123) - was an impediment to establishing alternative activities, unless farmers could purchase additional nearby blocks. Finance to enlarge farms, however, was becoming difficult to obtain from the banks by the early 1990s, given the uncertainty surrounding the future of the tobacco industry (IC 1994, p. 121). Locally, the MDIA farmers also had a very limited marketing base. Areas within a day’s haulage of Mareeba have a total population less than 500,000, compared to a population base of almost 10 million consumers within a day’s haulage of Myrtelford in Victoria. Too many MDIA farmers growing the same crop would lead to an over supply situation arising very quickly. Exports of high-value fresh produce were possible to Asia following the establishment of an international airport at Cairns (an hour’s drive from Mareeba) in 1984. Taking advantage of this linkage, however, was difficult due to continued high protectionism in Asia, fierce competition from lower-cost sources and strict quarantine regulations (Carr 1994, p. 3).

The area under tobacco in the MDIA began to fall in the early 1990s, as some farmers exited the industry (Table 4). One ex-tobacco farmer went for a niche activity – growing coffee and farm-based processing of the beans into coffee for sale to Far North Queensland retail outlets heavily dependent upon tourists. Other ex-tobacco farmers began establishing orchards of mangoes, avocados, macadamia nuts and citrus fruit trees or growing navy beans and pumpkins. Continuing tobacco farmers, who devoted some of their spare land to fruit crops or vegetables, joined them.
Hence, the area under orchard fruit and vegetables rose sharply in the MDIA (Tables 4 and 5). In 1994, a survey of 296 tobacco farmers in the MDIA found that 23.9 per cent still grew tobacco exclusively, while the remainder had either planted mangoes, avocados, lychees or pumpkins or bred cattle to supplement their income (Tobacco Research and Development Corporation 1998, p. 10). The financial returns from these new crops, however, were well below that generated by tobacco (Table 6).
Table 5. Area (ha) cropped by main orchard fruit, nuts and vegetable and tree crops in the Mareeba-Dimbulah Irrigation Area, 1990-91 to 1998-99.

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Mangoes</td>
<td>957</td>
<td>1208</td>
<td>2539</td>
<td>2526</td>
<td>2479</td>
</tr>
<tr>
<td>Avocados</td>
<td>415</td>
<td>322</td>
<td>544</td>
<td>482</td>
<td>406</td>
</tr>
<tr>
<td>Cashew Nuts</td>
<td>116</td>
<td>219</td>
<td>200</td>
<td>215</td>
<td>220</td>
</tr>
<tr>
<td>Macadamia Nuts</td>
<td>406</td>
<td>333</td>
<td>281</td>
<td>393</td>
<td>135</td>
</tr>
<tr>
<td>Navy beans</td>
<td>164</td>
<td>206</td>
<td>632</td>
<td>766</td>
<td>24</td>
</tr>
<tr>
<td>Pumpkin</td>
<td>341</td>
<td>212</td>
<td>304</td>
<td>253</td>
<td>198</td>
</tr>
<tr>
<td>Citrus fruit</td>
<td>98</td>
<td>162</td>
<td>184</td>
<td>127</td>
<td>148</td>
</tr>
<tr>
<td>Other tree crops*</td>
<td>560</td>
<td>628</td>
<td>755</td>
<td>1282</td>
<td>1924</td>
</tr>
</tbody>
</table>

* Includes coffee, tea tree, lychee, paw paw, custard apples and peach

Source: Based upon surveys undertaken by water meter readers from the Queensland Department of Natural Resources and Mines.

<table>
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</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>49.8</td>
<td>45.3</td>
<td>27.8</td>
<td>27.7</td>
<td>26.7</td>
<td>31.2</td>
<td>20.0</td>
<td>17.4</td>
</tr>
<tr>
<td>Sugar Cane</td>
<td>.5</td>
<td>2.1</td>
<td>3.5</td>
<td>8.1</td>
<td>9.2</td>
<td>9.3</td>
<td>19.0</td>
<td>33.0</td>
</tr>
<tr>
<td>Avocado</td>
<td>4.0</td>
<td>3.0</td>
<td>5.8</td>
<td>7.4</td>
<td>8.4</td>
<td>6.0</td>
<td>13.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Mango</td>
<td>6.7</td>
<td>12.0</td>
<td>12.0</td>
<td>14.0</td>
<td>16.5</td>
<td>16.5</td>
<td>20.0</td>
<td>30.0</td>
</tr>
<tr>
<td>Seed (pasture)</td>
<td>2.5</td>
<td>2.0</td>
<td>2.7</td>
<td>2.2</td>
<td>*</td>
<td>2.0</td>
<td>2.4</td>
<td>*</td>
</tr>
<tr>
<td>Maize</td>
<td>.4</td>
<td>.4</td>
<td>.3</td>
<td>1.0</td>
<td>1.7</td>
<td>3.1</td>
<td>.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Peanuts</td>
<td>1.0</td>
<td>1.3</td>
<td>2.6</td>
<td>1.9</td>
<td>2.7</td>
<td>12.0</td>
<td>1.5</td>
<td>8.9</td>
</tr>
<tr>
<td>Vegetables</td>
<td>7.5</td>
<td>3.6</td>
<td>4.4</td>
<td>9.8</td>
<td>7.1</td>
<td>13.3</td>
<td>4.8</td>
<td>20.8</td>
</tr>
<tr>
<td>Other tree crops</td>
<td>3.3</td>
<td>4.7</td>
<td>6.0</td>
<td>20.5</td>
<td>16.6</td>
<td>21.5</td>
<td>16.4</td>
<td>19.5</td>
</tr>
<tr>
<td>Other crops</td>
<td>5.9</td>
<td>2.1</td>
<td>3.2</td>
<td>3.0</td>
<td>14.1</td>
<td>2.1</td>
<td>13.9</td>
<td>6.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>81.6</strong></td>
<td><strong>76.5</strong></td>
<td><strong>68.3</strong></td>
<td><strong>95.6</strong></td>
<td><strong>103.0</strong></td>
<td><strong>117</strong></td>
<td><strong>111.5</strong></td>
<td><strong>160.1</strong></td>
</tr>
</tbody>
</table>

* Not recorded as a separate entry, but included with the category ‘Other Crops’.

Source: Based upon surveys undertaken by water meter readers from the Queensland Department of Natural Resources and Mines.
On the eve of deregulation, 344 tobacco quota holders existed in the MDIA. Those MDIA tobacco farmers wishing to exit the industry under the 1995 Tobacco Industry Restructuring Process were asked to lodge an expression of interest to sell their quota with the Queensland Rural Adjustment Authority. Expressions of interests to retire approximately six million kilograms of tobacco were received from Queensland’s tobacco growers, far exceeding the 2.92 million kilograms that had been agreed upon as the amount to be retired to make the industry more viable. Applications were selected on a first-in-first served basis. Hence, at the conclusion of the process, 113 quotas totalling just over 2.6 million kilograms of tobacco were retired from production in the MDIA (Tobacco Leaf Marketing Board of Queensland 1995, p. 5; Bimrose 2001, Section 1, pp. 21-22). The scheme demanded the immediate cessation of tobacco production by those selected to exit the industry. Thus a year later, area under tobacco in the MDIA fell to just under 1 500 ha, almost half the amount grown a decade earlier (Table 4).

Following a confidential report on emerging farmer hardship in the MDIA to the Queensland Minister for Primary Industries in 1996, the Queensland government met with industry leaders to discuss further assistance to the state’s tobacco industry. The result of these negotiations was a one-off assistance package, known as the Queensland Government Tobacco Assistance Package - 1997. A maximum of $30 million was provided to assist eligible Queensland tobacco farmers to restructure their farming operations by either enhancing productivity within the tobacco growing industry or diversifying into other crops. Eligible growers had three options: exit tobacco growing immediately on welfare grounds (ie age, ill health); exit tobacco
immediately or under deferred conditions; or receive restructuring support to continue tobacco farming. Under this scheme, thirty-nine MDIA tobacco growers exited the tobacco industry immediately in 1997, while thirty-seven growers were to exit the industry by the deferred exit option in 2002. At the termination of this scheme in 2002, 130 growers were to comprise the tobacco industry in the MDIA (QTMCA 2000a, pp. 5-6; Bimrose 2001, Section 1, pp. 22-23).

Tobacco farmers surrendering their quotas switched to other crops. Sugar cane proved attractive to some ex-tobacco farmers who had bigger properties enlarged via amalgamations and adequate water entitlements. The crop had been grown in the MDIA in the late 1980s (Table 4), but the area under sugar cane had been expanded considerably in the mid-1990s by ex-rice farmers forced to seek a new crop after the collapse of their marketing and milling arrangements (pers. comm., Peter Nilsson, Business Adviser to MDIA sugar cane farmers)². These ex-tobacco and ex-rice growers who switched to sugar cane had their cane processed mainly at Mossman Mill, located seventy kilometres away on the coast. The cost of transporting the harvested sugar cane to Mossman Mill caused friction between the growers and miller.³ A small group of MDIA farmers in 1994 commenced investigations into establishing their own co-operative mill, and also approached CSR and Sugar North Limited to determine if these organizations would erect a mill in the Mareeba Shire. Sugar North Limited expressed an interest in the scheme, but negotiations faltered, and Bundaberg Sugar Limited (then a subsidiary of the British firm Tate & Lyle) agreed to erect a new sugar mill at Arriga, twenty-four kilometres south-west of Mareeba (pers. comm., Peter Nilsson; Australian Sugar Year Book 1999, p. 11). This mill commenced operations in June 1998, producing syrup that is tankered by rail to
the coastal mills of Bundaberg Sugar Limited for final processing into raw sugar. Its presence encouraged further ex-tobacco farmers to plant sugar cane. In 1999, seventy-eight MDIA farmers harvested sugar cane from 4,032 ha to supply the Tableland Mill (Australian Sugar Year Book 2000, p. 70). Sugar cane has now replaced tobacco as the crop generating the most income in the MDIA (Table 6).

Other ex-tobacco farmers who were unable to switch to sugar cane because of the size of their properties, lack of access to water entitlements or who did not want to grow sugar cane were faced with finding alternative crops. Sixty farmers formed the North Queensland Essential Oils Cooperative Association Limited in 1993, and commenced growing tea tree. Levies on oil sales funded research into developing local knowledge about the irrigation requirements of the tea tree (Drinan 1998; Rural Industries Research and Development Corporation 2000). Others planted navy beans, pumpkins, paw paws, lychees, citrus fruits and custard apples, leading to a further increase in the area under vegetables and orchard fruit and nuts in the MDIA (Tables 4 & 5). A drive through the district, however, will also reveal that some ex-tobacco farmers have not commenced growing any other crop – the small paddocks where tobacco was once cultivated are covered by long grass. Anecdotal evidence indicated that some ex-tobacco farmers were nearing or had reached retirement age by the mid-1990s – the estimated average age in 1993 was 53 (IC 1994, p. 125) - and took the opportunity to retire from farming (pers. comm., Graeme Ison, Tablelands Marketing).

The switch to these alternative crops has not always been successful. An oversupply of oil produced from the tea trees has resulted in many local tea tree producers
receiving no income from their 1998 harvest. The fields of tea trees have not been harvested since 1998, and now stand unattended (pers. comm., Graeme Ison, Tablelands Marketing). Mango producers have also suffered in the last two seasons from poor crops and small amounts of fruit. In addition, not all farmers are producing high quality fruit. This fruit flooded the market in 2000/01, forcing prices down. An oversupply of pumpkins was reached in 1999, with few growers making any money out of their crops. Large plantings of paw paws in 1999 and 2000 are causing concern, as farmers fear the emergence of an oversupply situation (Bimrose 2001, Section 1, pp. 44-46). The common local view, according to Bimrose (2001, Section 1, p. 59) is that about ten per cent of MDIA farmers are “successful professional farmers”, thirty per cent are farming adequately season to season, and about sixty per cent are struggling to make the transition to farming under a deregulated regime.

In 2002, at the cessation of the Queensland Government Tobacco Assistance Package-1997, the MDIA was supposed to be left with 130 farmers who had the capacity to produce 4 million kilograms of tobacco annually. However, company officials from British American Tobacco Australia Limited (BATA) – Australia’s largest cigarette manufacturer – summoned representatives from the QTMCA and the Tobacco Cooperative of Victoria to a meeting on 15 May 2000. BATA advised its requirements for Australian-grown tobacco would fall from 4.5 million to 1.9 million kilograms over the next six years. BATA blamed its proposed reduction in tobacco purchases on the falling Australian demand for cigarettes that had arisen because of health concerns and increased taxes, and the growing availability of illegal tobacco – chop chop. Moreover, BATA claimed Australian tobacco was more expensive to buy than imported overseas-produced tobacco. MDIA tobacco farmers were told to halve their production by 2006 (QTMCA 2000b, p. 1). Then, without warning, BATA
announced in November 2000 it would not buy any tobacco from the MDIA, but purchase only from the Myrtleford region or overseas. This action meant the offer from cigarette manufacturer Philip Morris to purchase one million kilograms of MDIA tobacco leaf became inoperable in 2001, as it was dependent upon BATA also purchasing MDIA tobacco leaf (pers. comm. Peter Soda, QTMCA).

For the first six months of 2001, the remaining tobacco growers in the MDIA were uncertain as to their fate. Some had to meet their 2001 contractual obligations with the cigarette manufacturers and planted tobacco in March and April. QTMCA estimated about 200 ha were sown with tobacco during this period (pers. comm. Peter Soda, QTMCA). However, following pressure upon politicians from industry leaders and additional industry negotiations with BATA, the firm did an about-face, announcing in July 2001 that it would buy one million kilograms of tobacco leaf from MDIA producers in 2002. This offer, together with a contract from Philip Morris that was dependent upon an offer from BATA, means that QTMCA now have contracts for 2.02 million kilograms of MDIA produced-tobacco. Remzi Mulla, Chairman of QTMCA, notes that the contracts totalled only 40 per cent of the quantity of tobacco leaf that could be produced in the MDIA. The offers will be accepted, although planting cannot take place until March and April 2002 (Cairns Post, 26 July 2001, p. 14; Cairns Post, 6 September 2001, p. 10; pers. comm., Peter Soda, QTMCA). The majority of the MDIA tobacco growers will have limited income from tobacco during 2002, as most did not plant this year.

**Conclusion**
In common with other Australian rural regions, agricultural production in the MDIA was shaped by state support for agriculture. Australian farmers in general after the Second World War benefited as the state financed various scientific and marketing organisations to boost both production and provide a basis for the orderly sale of agricultural products. It also financed irrigation and flood mitigation schemes, infrastructure such as beef roads, input subsidies to designed to use more fertiliser, and taxation concessions that encouraged capital investment (Scott 1987, p.210; Lawrence 1989, pp. 234-235). MDIA tobacco growers benefited similarly, through tariffs that protected them from imports of tobacco, marketing arrangements that included production quotas and guaranteed minimum prices for tobacco leaf and the guaranteed provision of water from the Tinaroo Falls Dam and irrigation scheme.

In common with other Australian agricultural regions, the MDIA has been affected by the removal of state support for agriculture. Yet this process has had quite different outcomes in the MDIA compared to the rest of Australia, where the Productivity Commission concluded there to be no lingering negative effects from deregulation (Productivity Commission 1999, p. 210). The exodus of smaller growers found in other studies on the impact of deregulation on rural industries has not occurred in the MDIA (Robinson 1995, pp. 221-222; Burch and Pritchard 1996, pp. 112-114). Instead, immediately preceding and after deregulation of the tobacco industry in 1995 there was widespread abandonment of tobacco growing by all types of farmers. Some farmers simply retired; others switched to growing sugar cane or a variety of horticultural crops. The agricultural landscape was altered completely, although a much smaller tobacco-growing industry was still present in 2000. However, an increasing number of MDIA farming families (both tobacco and non-tobacco
growers) are experiencing financial difficulties and associated personal and family problems. They are struggling to make the transition from farming under a regulated environment to an open market system. Deregulation of the Australian tobacco industry has had well-documented and negative local impacts in the MDIA (Bimrose 2001, Section 1, p. 5).

The future for the remaining MDIA tobacco growers is also very uncertain. Remzi Mulla, Chairman of QTMCA, argues that the latest offer from the cigarette manufacturers is a stop-gap measure because it was only for one year. Moreover, the MDIA tobacco growers are faced with the transnational cigarette manufacturers ‘playing off’ one Australian tobacco-producing region against the other. Already, the cigarette manufacturers have offered contracts to the Myrtelford growers that were more attractive than those in North Queensland (Cairns Post 26 July 2001, 14). This trend has been observed elsewhere in Australia where agribusiness has started ‘playing off’ regions within Australia with regions in Thailand and New Zealand in regard to the supply of inputs for processed food (Lawrence 1996, 343). Thus, continued tobacco growing in the MDIA is most likely in jeopardy and if it does survive in the long-term the industry will be far removed from the one that developed through much of the post-war period. The economic basis of the MDIA is also now far removed from what emerged in the post-war period, for the district no longer relies on tobacco growing for its prosperity. Declining state support for agriculture has changed rural space completely in one Far North Queensland region.

Acknowledgments
The author would like to thank Ms Adella Edwards, cartographer with the School of Tropical Environment Studies and Geography at the Townsville Campus of James Cook University, for drawing the map at such short notice. He is also grateful to Mr Peter Soda, Manager/Secretary of the Queensland Tobacco Marketing Co-operative Association, for answering questions about the tobacco industry and allowing access to the records and library of this organisation at Mareeba. Ms Shannon Dempster of the Mareeba office of the Queensland Department of Natural Resources kindly assembled crop data for the MDIA during the 1990s. Mr Peter Nilsson, Cairns, provided valuable background detail about the rise of sugar cane growing on the Atherton Tableland, and Mr Graeme Ison’s local knowledge assisted greatly with the interpretation of the cropping statistics.
Notes

1. Assembling the agricultural statistics for this article has been hindered by a lack of consistent data. The Australian Bureau of Statistics up to an including 1996/97 used to undertake a yearly agricultural census. This data, however, was also not detailed enough to reveal the emerging cropping trends in the MDIA and based increasingly upon very small samples which had inherent sample errors. Hence, the data used in compiling Tables 4 to 6 is mostly based upon surveys undertaken by Queensland Department of Natural Resources and Mines water meter readers who visited farms in the MDIA. There are problems with consistency of recording and no surveys were done in 1997/98.

2. The MIDA rice farmers relied on the rice mill at Home Hill and the marketing expertise of the Lower Burdekin Rice Producers Cooperative Association. During the late 1980s, the Lower Burdekin rice growers slowly abandoned the crop due to problems with pests, saline water and marketing difficulties. As a result, the Lower Burdekin Rice Producers Cooperative Association folded in 1993 and the rice mill ceased to operate (Douglas 1996, p. 301).

3. In Queensland, sugar cane farmers pay the cost of transporting their harvested cane to a particular spot (eg tramway siding), and the miller pays to bring the cane to the mill for crushing. Mossman Mill in the early 1990s would not agree to pay for the transport of harvested sugar cane from a designated spot in the MDIA. Sugar cane farmers in the MDIA, therefore, had to pay to cart
their cane up to 100 kms to their nearest coastal tramway siding, thereby adding substantially to the cost of growing their crop (pers. comm., Peter Nilsson).
REFERENCE LIST


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QUEENSLAND TOBACCO MARKETING COOPERATIVE ASSOCIATION


TOBACCO LEAF MARKETING BOARD OF QUEENSLAND, various years *Annual Report*.

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