



REPORT

Independent Assessment
of the Sugar Industry
2002

Clive Hildebrand

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**Report to the Hon. Warren Truss MP
Minister for Agriculture, Fisheries and Forestry**



The Hon Warren Truss MP
Minister for Agriculture, Fisheries and Forestry
Parliament House
CANBERRA ACT 2600

Dear Minister

I have pleasure in presenting my Assessment of the sugar industry's viability and restructuring needs as requested. It is my personal opinion, neither more nor less, after an intense period of contact activity covering all the groups requested, and after personal research. As requested it is written in direct terms, and is without modification for outside requests except to observe confidentiality.

While at times critical, it is a genuine attempt to contribute to the long term future of this industry, which is so rich with history and today's hard working and dedicated people, and so important to regional coastal Queensland and northern New South Wales, as well as the Ord River Irrigation Area.

The process chosen was open and transparent. Despite time limitations I am confident that I have been given a privileged insight into the state of the industry and the key issues.

Economic and environmental drivers were examined and are reported in the Assessment. Social research was carried out, but due to time limitation reliance has been placed on written or personal interchange with people in the regions, and in all levels of government. Although it has been impossible to include every view in the final report, all have been considered.

For their full cooperation and welcome support I would like to thank: the industry's peak and regional representative and research bodies and the various Local, State and Commonwealth agencies consulted, especially the Department of Primary Industries in Queensland. I also thank all those within and outside the industry who provided submissions and advice, both public and private, and all those who attended public and private meetings. Finally, I record the untiring diligence and support of the Assessment Secretariat in Canberra.

Yours sincerely

Clive Hildebrand

June 2002

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INDEPENDENT ASSESSMENT OF THE SUGAR INDUSTRY

1. ASSESSMENT OVERVIEW

The sugar industry in Australia has been the subject of many detailed examinations and multiple legislative changes throughout its history, which spans more than 100 years. As the report of the Sugar Industry Review Working Party ("Sugar – Winning Globally") was published in late 1996 this Assessment does not attempt to reinvestigate and analyse every industry detail. Neither could it have done so in the time available. The appendices attached cover most areas, drawing heavily on pre-existing information. The Assessment carried out limited, focused investigation into certain key factors. Information provided in response to the advertised invitation for public submissions and from private and public meetings was also used, to the extent it was able to be relied upon. Late submissions (which represented approximately half of all received) were considered when received, to the extent possible.

The Assessment was commissioned on 15 February 2002 and submitted to the Federal Minister for Agriculture, Fisheries and Forestry, the Hon Warren Truss MP on schedule. Appendix A: "Conduct of the Assessment" details the process used, and the scope of formal and informal consultation and enquiry. This process was chosen to capture the widest sample of views possible in the time available. While the cooperative response was outstanding, this is not unusual for the sugar industry, where a widespread commitment and keen interest has previously been evident from all participants. Significant contributions were also made by people with a relevant and committed interest, but who were outside the industry. Many confidential submissions offered financial information not otherwise available. Where possible all comparable information was used to check the consistency of related financial information offered or publicly available. As the operation of farms, harvest, transport and milling each involves multiple variables, the effect of each variable cannot be precisely defined without further detailed research.

Appendix A also lists the Terms of Reference. In responding to the Terms of Reference, accent has been on ranking the fundamental "drivers" of the industry in the specified areas: economic, environmental and social outcomes, and making proposals for optimising the Australian industry's competitive position, with attention to accompanying environmental and social effects. Recommendations have been proposed in the pursuit of improved industry competitiveness, throughout the value chain from the farm to the marketing of raw sugar.

There could be no reasonable expectation that the Assessment would inform participants how they should conduct their business. That is not within the competence of the assessor in any case. This Assessment offers no magic solutions to the major immediate difficulty facing the industry: it is largely unprofitable in current market conditions. Improvements in profitability are only available from an increase in income and/or a decrease in costs. Future price has therefore been examined and reported, as have diversity of product and institutional influences on competitiveness.

The key areas for a potentially improved whole of industry performance are widely known by thoughtful industry participants. The Assessment concludes that changes have not occurred or have been slow in implementation because members of industry sectors had sometimes divergent priorities, and particularly because no one industry sector has the mechanism or authority to make the necessary changes. There is no peak industry body. The sugar industry sometimes operates as if it were several industries.

Despite industry structure having been addressed by more knowledgeable persons in the past, the question has been re-examined here: how to devise structures that promote increased whole-of-industry performance while still meeting the basic motivations of industry participants to a reasonable extent.

The participatory principle is particularly applicable in dealing with environmental performance, recognising that long-term self-interest of every industry in the end relies on retaining

community consent. The sugar industry has made some significant voluntary moves in environmental matters. The scope of "relevant interest" of parties with environmental opinion is open for debate, but for every industry the scope has grown wider with ease of communications and travel. In some cases relevant interest can be global. In the case of sugarcane as a renewable crop, global greenhouse gas considerations are potentially strongly positive, while some outside the industry have submitted that there are potentially negative factors involved, for example water quality ex-farm, that need examination and attention.

The Assessment addresses economic, environmental and social outcomes in terms of their sustainability. As there would be no sugar industry without economic sustainability and this is under pressure today, the potential for economic sustainability is examined before addressing the effect of industry on (and the effect on industry by) environmental and societal considerations.

The degree of constructive cooperation received from all parties during the Assessment was generally outstanding, whether supportive or critical of one or other aspect. In particular the thoughtful contributions of individuals and groups, some with commercially sensitive information, underlined a very high degree of commitment and goodwill to the industry. At the same time it is evident the industry itself has very serious concern for its future and most participants believe that change is essential.

A bibliography is attached in Appendix I. Submissions for which permission has been given to be made public are available at the web site www.affa.gov.au/sugar. The Commonwealth Department of Agriculture, Fisheries and Forestry - Australia (AFFA) has ensured that other information will maintain the degree of confidentiality specified by informants. Indicative costs of the Assessment are listed in Appendix A.

2. A SNAPSHOT OF THE SUGAR INDUSTRY TODAY

2.1 The Business Defined

The Australian industry's behaviour today conforms to the description:

Production of raw sugar and by-products from processing of sugarcane, marketed world wide.

Customers for raw sugar are refiners of sugar world wide (including in Australia). Customers for by-products are purchasers of molasses for alcohol distillation, animal feedstock and other uses. There is also a fledgling "green" electricity market for sale of surplus electricity from increased efficiency of combustion of the fibrous bagasse, previously largely a waste product. Low volume products include organic sugar as a specialty, and packaged field plant-waste marketed as garden mulch. Refined sugar is a separate business supplying a different market. While one refinery executive was interviewed during the Assessment, the refined sugar business has not been examined, noting however that four Australian raw sugar manufacturers are aligned with sugar refineries, some of which are co-located with their raw sugar operations.

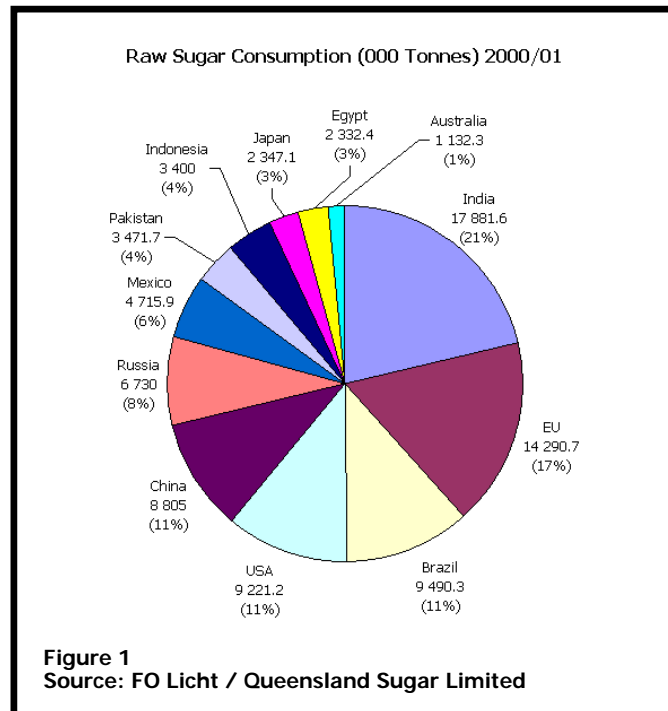
The business therefore spans activities from farm production of sugarcane through harvesting, milling, and marketing of raw sugar and by-products.

2.2 The Market Defined

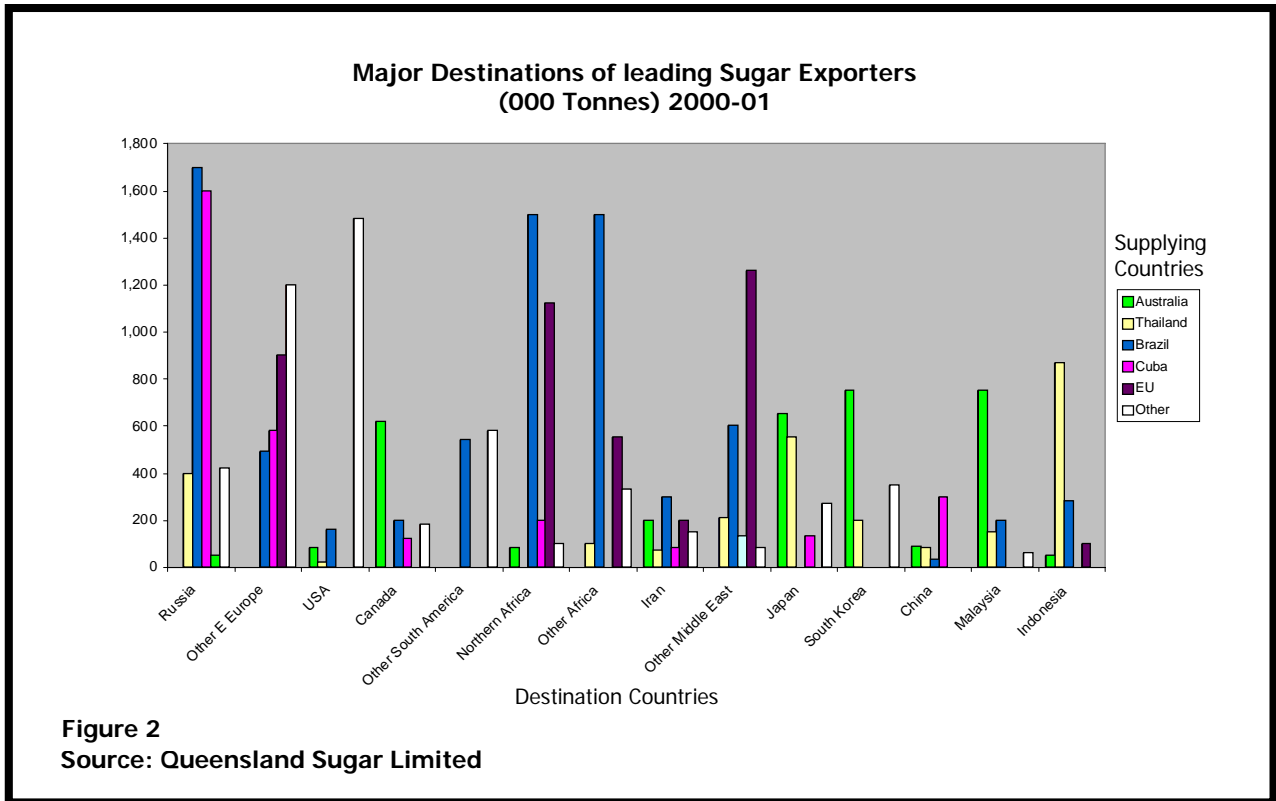
"The market" comprises customers of the Australian raw sugar industry plus customers of its competitors, world wide.

Income arises only from customers, whose needs therefore must be the primary focus of industry.

The market's consumption of raw sugar for 2000-2001 is shown in Figure 1.

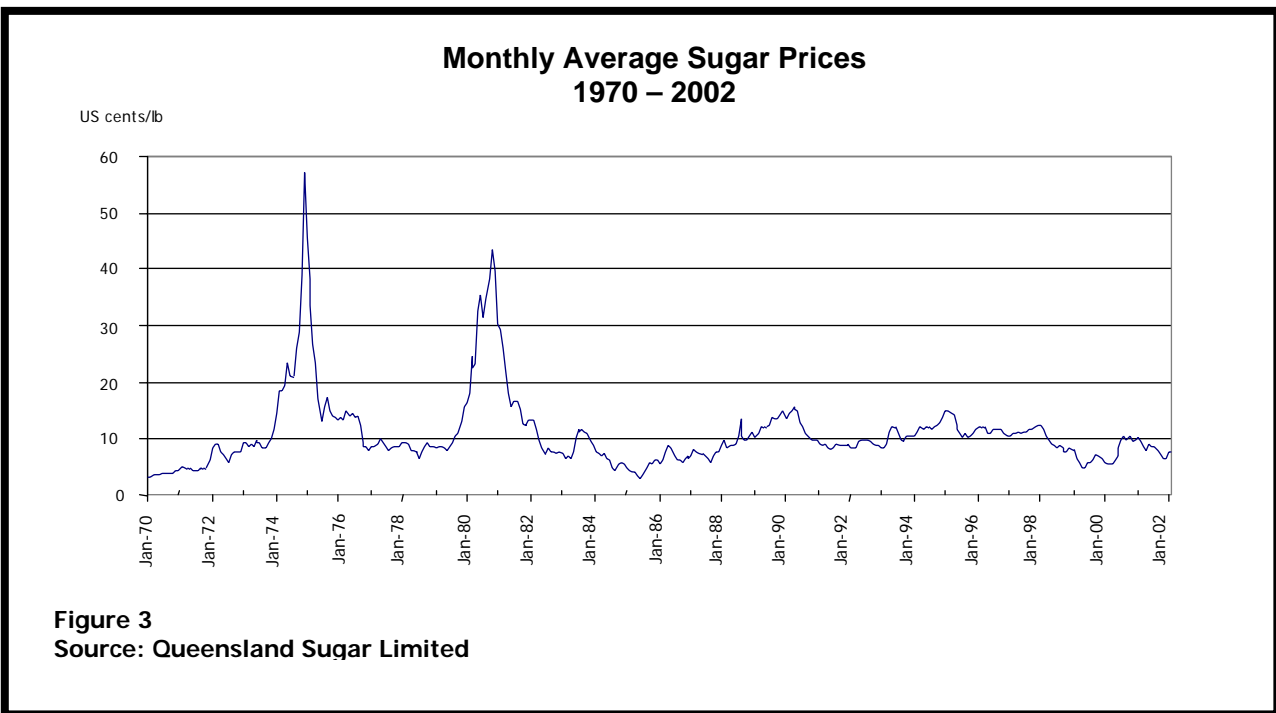


Of the world's consumption of raw sugar, a significant proportion is traded internationally. For 2000-2001 that trade is shown in Figure 2.



The World Market Place

World market prices for raw sugar averaged over US 10 cents per pound (c/lb) from 1990-98, but only 7.32 c/lb from 1999 to date (see Figure 3). This reflects not only oversupply on the world market, but also the increasing dominance of exports from Brazil.



World market production and the pattern of free market purchasing have been reshaped by Brazil with its low cost of production, and a high quality product available from its standard raw sugar manufacturing process. World consumption continues to grow at a steady pace, with scope to surge if some trade reform occurs and developing countries such as China loosen their import regulations. Growth in artificial sweetener usage has slowed, and could reverse under these same assumptions.

Brazil's competitive position is a result of a number of natural factors (available land and a favourable climate) but it is also helped by low labour costs, access to capital and a sharp recent currency devaluation. Production costs in the Centre-South could be as low as US 5 c/lb, but there is a range of production cost in the industry. Brazil's sugar industry supplies ethanol (~50% of cane) domestic sugar (~25%) and export sugar (~25%) markets as well as co-generated electricity to diversify its revenue base.

Other raw sugar producers (Thailand, South Africa and Guatemala) are also being buffeted by Brazil's production surge, but like Australia are likely to be long term survivors. Cuba's industry has diminished steadily and operates at high cost. Small producers who are dependent on a high proportion of their production into high-priced European Union or United States (US) quotas are likely to be heavily exposed if there is trade reform.

There are very few producers with a substantial exposure to "world market price", the outcome of a melting pot of competitive positions. Australia is the most exposed (exporting 80-85% of raw sugar production) with Thailand probably second. Other producers either have large domestic demands accompanied by price protection, with or without some access to protected, high priced European Union or United States domestic markets. Australian domestic protection was removed in 1997, leaving Australian producers with trade reform, product diversification or reduced cost as routes to improved competitiveness.

The Australian industry has to date proved that it is competitive and innovative, but further work is needed in light of Brazil's low cost of production. A low-value Australian dollar (A\$) helps Australian industry's competitiveness. Competing producing countries have had a larger devaluation than Australia against the US dollar (US\$) however and this is difficult to combat. A recently appreciating A\$ further erodes returns to the Australian industry.

Trade Reform

The Australian Government in concert with industry has worked hard for world sugar trade reform. From 1997 Australian import sugar tariffs were reduced at a faster rate than the World Trade Organisation's (WTO's) allowable levels, largely with the intent of setting an example for others to follow. In November 1999 at the WTO meeting in Seattle Australia's Minister for Trade, the Hon Mark Vaile MP, presented a paper detailing the very high cost to consumers in countries with domestic sugar protection, and the expected significant increase in the world price if protection were removed (yet still with significant benefits for consumers "within"). At that meeting and as a result of Australia's initiative, the Global Sugar Alliance was established and still operates, led by Mr B Vaughan AO, Chairman of Queensland Sugar Limited. The Alliance includes Brazil and other significant suppliers who are barred from protected markets, plus some of the major consumers within those markets.

Whilst there are pressures building on sugar trade reform, efforts to date have not been successful and there is no present evidence that progress will be swift. (The protection factor is further discussed in the later section addressing sugar price projections.) The Australian industry therefore has no option but to pursue any possible improvements in its competitiveness, and to explore possible diverse products from sugar or cane in the meantime, in order to be able to see the advantages of being a leading supplier in a freer world trade environment.

2.3 The Industry Defined

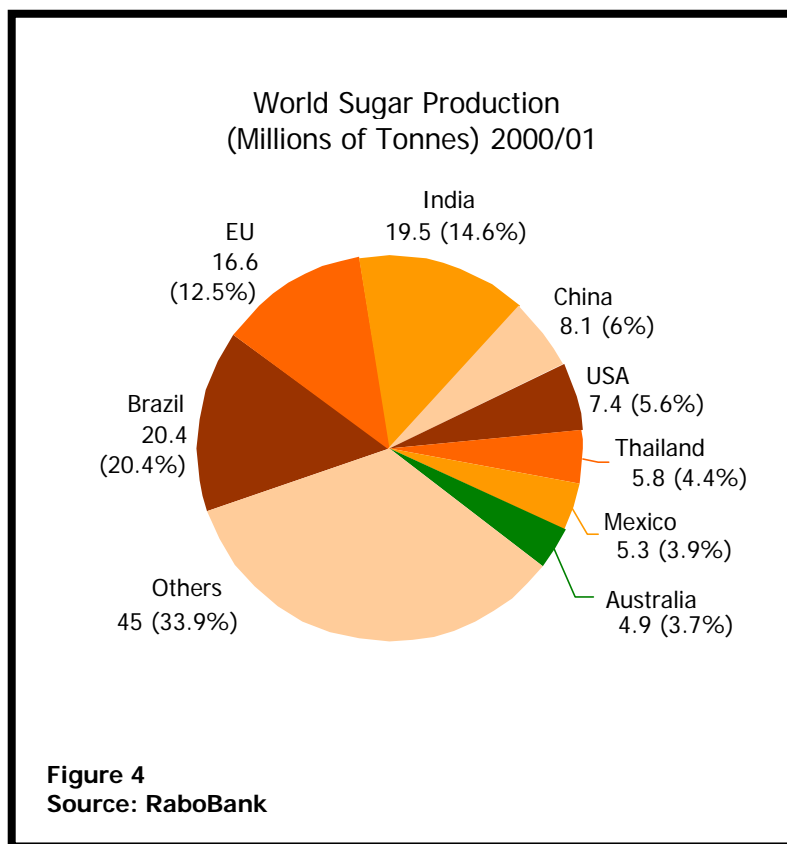
"The sugar industry" comprises Australian raw sugar producers (including farms and mills together) plus competing overseas producers.

For this Assessment reference to "the industry" is to the Australian raw sugar industry whose business has earlier been defined as:

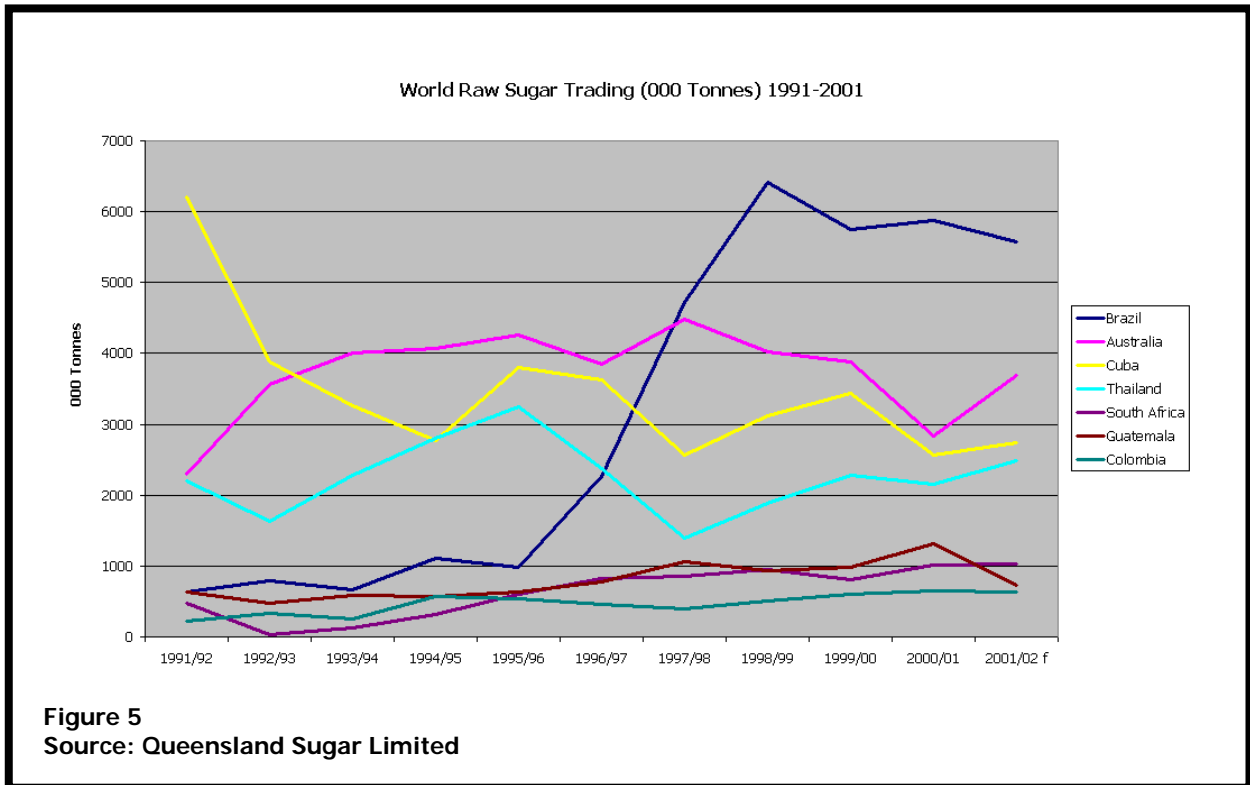
Production of raw sugar and by-products from processing of sugarcane, marketed world wide.

As approximately 95% of Australian raw sugar is produced in Queensland, industry in that State is the focus of most comments. The industries in New South Wales and Western Australia (Ord River Irrigation Area - "the Ord" or "Ord") are structured differently from Queensland's, each consisting of a single business entity.

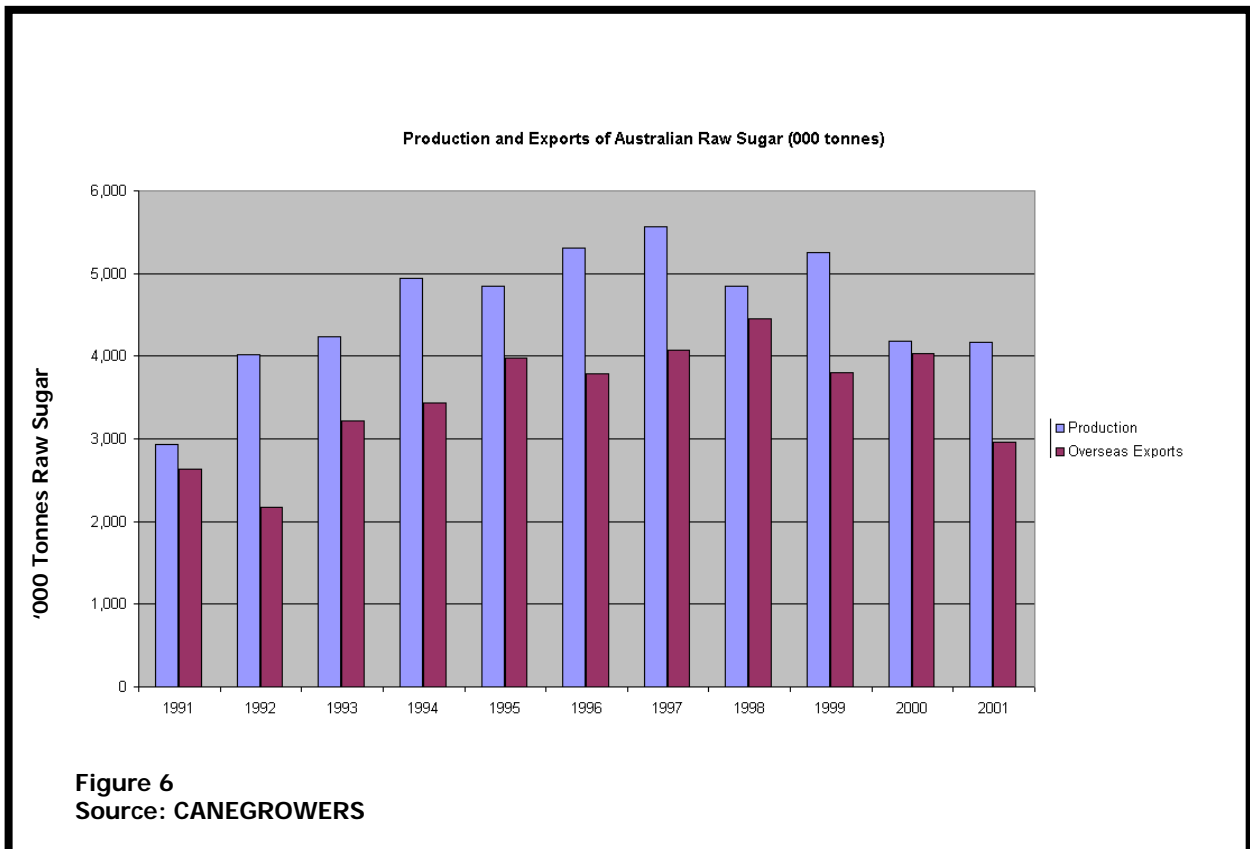
World production of raw sugar for 2000-2001 is shown in Figure 4.



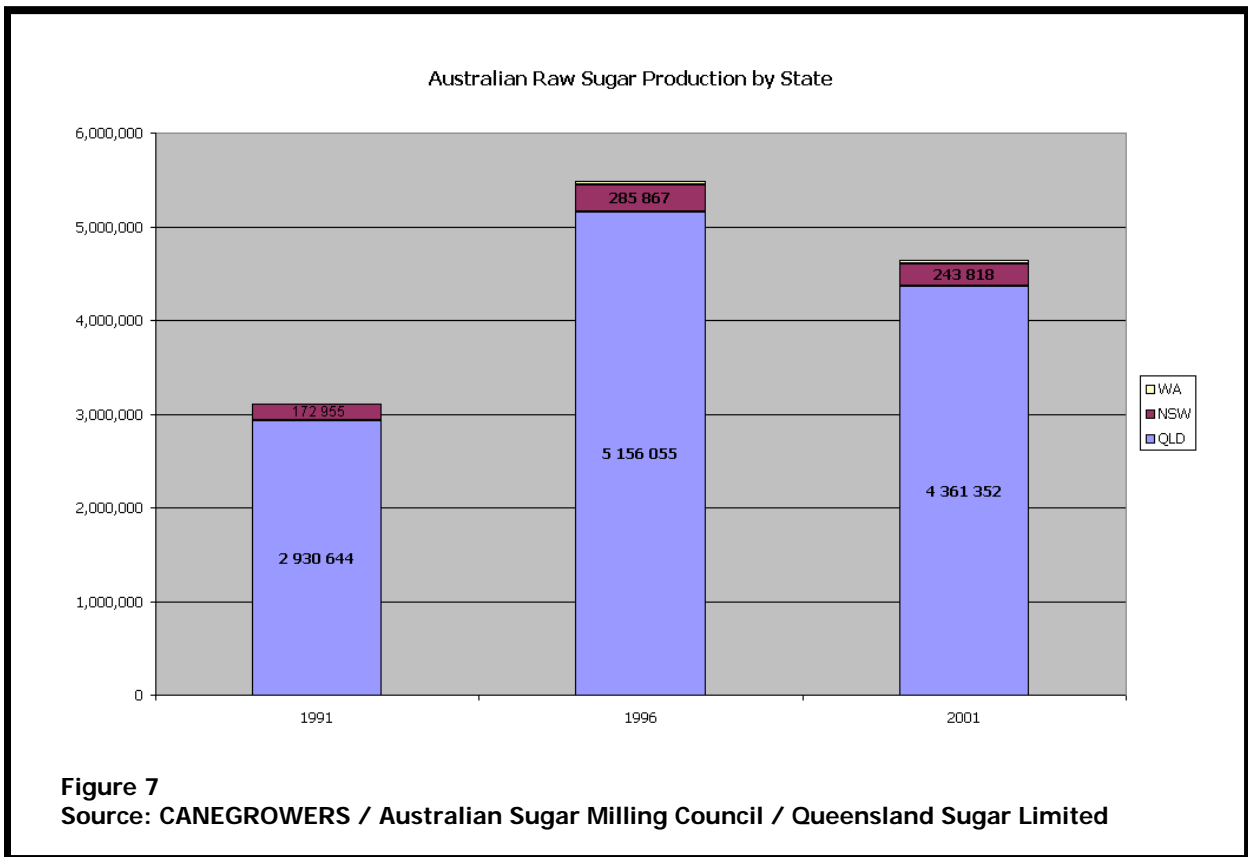
World traded raw sugar for the period 1991-92 to 2001-02 is shown by major exporting country in Figure 5, in which the growth of Brazil as exporter is notable.



Australia's raw sugar sales for 1991-2001 are shown in Figure 6. The reliance on export sales is clear.



The production of raw sugar in Australia by state in years (1991-92, 1995-96, 2000-01) is shown in Figure 7.



3. FACTORS AFFECTING FARM VIABILITY

3.1 Sugar Price

The expected future A\$ sugar price is critical, but it is highly variable

The future of the Australian industry is heavily dependent on the internationally traded price for raw sugar at which all raw sugar production is sold, whether to domestic or to export markets. Accordingly the Assessment commissioned independent studies by the Australian Bureau of Agricultural and Resource Economics (ABARE) and the Centre for International Economics (CIE) to examine the likely future international price for raw sugar under different scenarios. Econometric modelling was undertaken to determine the likely range of prices, and the sensitivities to important variables such as currencies, market access, and productivity improvements. Both the New York Board of Trade (NYBT) NY # 11 price and the Australian dollar exhibit a high degree of volatility, so that any forward price projections need to be considered with appropriate caution.

The model outcomes, being two of the available inputs, were considered in conjunction with the views of Queensland Sugar Limited before making the following comments. Given the price volatility of raw sugar, it is again stressed that every projection is to be regarded as an indicative number within a range.

Most raw sugar traded on the world market is priced via futures prices quoted on the New York Board of Trade (NYBT) NY # 11 futures contract. While some criticise this basis of pricing, it is currently the only widely-traded raw sugar futures contract available to buyers and sellers and forms the basic reference price in the international market to price physical sales contracts. As the NY # 11 futures contract is a world-denominated contract it reflects global supply and demand and the expectations and actions of producers, consumers, traders, speculators and assorted other users.

Returns to Australian producers are determined primarily by the NY # 11 futures price, but also by the level of the Australian dollar, regional sugar premiums and the costs of marketing and transporting the product.

The estimated range of the A\$ raw sugar market price for 2002/03 is \$225-260/tonne, with an average closer to \$240 per tonne. Prospects for 2003/04 are for a slightly wider range of \$220-280 per tonne. For 2004 to 2006 the price is projected by econometric models to return to the average price over the past four years of around US 7 to 8 cents/lb. For planning purposes 7 cents/lb could be more suitable. Depending on the level of the Australian dollar, a sugar price of US 7 to 8 cents/lb could result in returns to Australian producers in A\$ between \$245 per tonne to \$333 per tonne across an exchange rate spread of, say, A\$ 1.00 = US\$ 0.63 - 0.53. For the Queensland farm sector this range of sugar price outcomes translates approximately into cane prices which vary between \$14 to \$23 per tonne cane depending on CCS (a measure of sweetness) for \$245 per tonne, up to between \$19 to \$31 per tonne cane at a sugar price of \$333 per tonne (Figure 8 below is illustrative of ranges of variation).

The impact of any climatic or crop disease factors will affect global supply. Such short term supply-side effects could push prices outside these ranges, as occurred in 2000 when prices ranged between US 5 and 12 c/lb in a nine month period. The econometric analysis shows prices could be markedly higher if there is a significant increase in access to presently protected foreign domestic markets, especially in USA, Europe and Japan. Access to these markets remains the aim of Australian Government negotiators and the Global Sugar Alliance. Current circumstances preclude any firm timetables for reform. Because of this situation, industry participants should not assume that any (or any significant) trade access gains will result in the short-medium term, notwithstanding the continuing efforts of government and industry to fast-track sugar trade reforms.

Figure 8: Estimated range of A\$ returns to farmer per tonne of cane under varying price and cane sweetness (CCS) assumptions

		A\$/tonne sugar		
		240	260	315
CCS	10	13.56	14.64	17.61
	11	15.72	16.98	20.45
	12	17.88	19.32	23.28
	13	20.04	21.66	26.12
	14	22.20	24.00	28.95

Figure 8
Source: Queensland Sugar Limited

At the price ranges shown in this table, the profitability of at least the Australian farm sector will come under severe pressure.

3.2 Australian Farm Costs

Unlike other Australian major primary industries, there is very little published information available on costs of production of cane between regions and for farms of different sizes. It is understood that the CANEGROWERS organisation is currently conducting a "Farm Production Survey", which could improve the availability of such information.

The only authoritative study in the past decade was conducted by ABARE (1996). This sugarcane industry survey covered the three years 1993-94 to 1995-96 and was undertaken at the request of the Sugar Industry Review Working Party. The survey covered cane farmers in Queensland only.

A study by Tessema and Topp (1997) used the ABARE data to show that there were significant differences in returns to cane farming between the four Queensland regions (northern, Burdekin, central and southern). A summary analysis of the average production costs for the four regions over the three years of ABARE data is shown in Figure 9.

Figure 9: Summary of Production Costs Averaged over Three Years (\$/tonne of cane delivered by Queensland cane farmers 1994-1996)

	North Qld	Burdekin	Central Qld	South Qld	All of Queensland
Average Production (t c per farm)	6,111	10,242	7,301	4,496	6,598
Average cash costs (\$/t)	21.07	25.14	23.59	24.59	23.16
Average depreciation cost (\$/t)	3.16	2.38	3.03	3.79	3.06
Average imputed family labour cost (\$/t)	3.24	2.17	2.70	4.53	3.06
Average total costs (\$/t)	28.87	30.79	30.84	35.30	30.81

(Source: Compiled from ABARE, 1996)

Although based only on three years and a restricted number of farms (195 across the four regions), these averages show that cash costs per tonne of cane produced are generally lower in northern Queensland than those in other regions. This was despite the northern Queensland average farm having only a production of around 6,000 tonnes of cane per year, the second smallest average production across the four regions. This result could have been associated with much less irrigation in that region. It should be noted however that differences in the sugar content of cane between regions is not accounted for in the above analysis. Lower sugar content of cane in northern Queensland compared with other regions could reduce or offset the region's lower cane production cost.

Family labour costs are higher per tonne of cane produced in northern Queensland and southern Queensland, where farms generally produce less cane per farm than in the other two regions, and where hired labour inputs (that appear in cash costs) are lower. Overall, and for each of the three years included, there were higher total costs of production in the southern region, than in the other three regions. Further, the southern region had a higher capital investment per tonne of cane than the other three regions.

The totals in Figure 9 do include interest paid and any land leasing costs (both included in cash costs). On average these costs represented only about \$1 to \$1.50 per tonne of cane and there is no other allowance in these figures for any return on total capital employed. A 3% return on full equity of a \$1.2 million average total investment (average cane farm investment as reported in the ABARE survey) would represent on average over \$5 per tonne of cane (\$36,000/6598 tonnes), or about a further \$4 per tonne of cane (\$5.50 less \$1.50) over and above the figures in Figure 9.

The ABARE data refer to average costs over three years. Individual farm costs will vary with the season, region, farm size and managerial ability. While it is recognised that the ABARE study is "dated", it is informative to compare the average costs with the prices projected to be achieved over the next few years.

A projected price in 2002-03 of A\$240 per tonne translates into a cane price of approximately \$21 per tonne of cane at a long-term industry average CCS of 13.5 (see Figure 8). This will not cover the average cash costs itemised in Figure 9, and will make no contribution to depreciation, the imputed cost of family labour, or return to equity in the farm. It will contribute only minimally to interest charges on debt. If the CCS is lower or higher the cane price will change according to Figure 8.

Compared even to the six year old ABARE cost statistics, at today's projected revenues large parts of the farming sector are not profitable. Taking into consideration the poor crop in 2002 and increases in input costs, in many cases 2002 revenue will not cover cash costs of a large number of farmers. Farms carrying debt are therefore today particularly vulnerable. This is supported by evidence in individual submissions and by aggregate information from financiers.

In the longer term (2004-2006) the best estimate of price from the modelling undertaken is a range of 7-8 US c/lb as reported earlier. This was translated into Australian prices of \$245-333 per tonne raw sugar across an exchange rate spread of US\$ 0.63-0.53 per A\$1.00. At an average CCS of 13.5, \$245 to \$333 per tonne of raw sugar translates into cane prices of about \$22 to \$29 per tonne. These prices will create an urgent need for productivity and cost improvements over the medium-longer term in order for the industry to remain internationally competitive. This is an area where farmers and millers could show joint leadership in creating partnerships to set improvement targets and work towards them. Some have already done so. For further comment see later discussion on Mill Suppliers' Committees.

3.3 Farm Debt

The following is an approved extract provided in advance of official 2001 Rural Debt in Queensland survey results from the Queensland Rural Adjustment Authority:

- debt for the sugar industry has increased by \$152m from \$1,028m at 31 December 1999 to \$1,179m at 31 December 2001;
- since the first survey in 1994 the increase has been \$668m;
- there are 2,751 borrowers in cane farming, similar to the last finance review in 1999 when there were 2,784 borrowers (there are approximately 6,500 canefarmers in Queensland);
- average debt per borrower is \$428,000, up from \$369,000 in 1999; and
- a significant number of borrowers have moved from being classed as "considered viable under most/all circumstances" to being classed as "considered potentially viable in the long term but are experiencing debt servicing difficulties" (170) and "experiencing debt servicing difficulties and a deteriorating debt situation, but with continuing support from lenders" (474).

It is not surprising that farm debt has increased. In many areas there has been a series of poor seasons from serious water surplus or shortage, and crop losses from orange rust and pest infestations. Several submissions by farmers evidence the sale of superannuation and other assets to maintain operations. Some have little remaining for family sustenance. Not all existing farm businesses will survive on present projections. Pressure will mount when accounts need to be paid, including for harvesting operations and preparing for the 2003 crop.

4. THE MONEY TRAIL

4.1 Can Australia Improve its Financial Position?

Many of the potential areas for industry improvement are detailed in the excellent 18-month study "Far North Queensland Sugar Industry Task Force" led by Lt Gen (Retd) John Grey AC which reported in October 2001. The report emphasizes that its contents are not the consensus view of any or all the Task Force members, and that very early in its life Task Force members recognised that the report's charter did not extend to being responsible for any actions needed or indicated. Such responsibility would lie with individual member organisations.

Many of the areas reported on by the Task Force are highly relevant and highly worthy of being followed through to conclusion. It is not intended to revisit these areas but to revisit the industry structure, a structure which in the case of the Task Force saw a progressive approach to a real economic difficulty stalled.

4.2 Mill Areas as Profit Centres

$$\textit{Profit centre} = \textit{mill area} = \textit{farms} + (\textit{harvest} + \textit{transport}) + \textit{factory}$$

The basic profit centre of the industry is the mill area or mill region (collectively referred to as "mill area"). The marketable raw sugar product results from joint efforts of both farmers and miller. There is no market for sugarcane, only for products of its manufacture. Miller and farmers are therefore jointly reliant in each mill area for profitable outcomes, and each must be profitable for economic sustainability of the mill area.

There is no economic alternative to constructive cooperation between farmer and miller.

Farms and mill must be geographically co-located: sugarcane is a giant sweet grass that once cut must be treated within 16 hours or its sweetness and therefore its commercial value deteriorates. For this reason farmer and nearby mill are wholly co-dependent. This can be summarised as:

- Cane cannot be economically transported beyond a time-and-cost-limited geographic radius;
- On the one hand, farmers seek to ensure that a mill will accept the cane they will grow and harvest over the season for optimum farm proceeds, to a schedule that averages crop and climate event risks between farmers ("farmer equity"); and
- On the other hand, a mill seeks to ensure that cane farming is the most profitable use of land in its feeder area, and that its milling capacity is adequate to ensure cane continues to be grown in sufficient quantity by its supplying farmers, in order for the mill to remain economically viable.

A profit centre should be able to stand alone

Logical consequences flow from the "profit centre = mill area" concept. By its own analysis, CSR's recent establishment of three farmer-miller Regional Industry Boards in Queensland to cover its seven mill areas formalised a mill area focus. Less formal farmer-miller coalitions exist in some other areas. Mill areas have various farmer and miller ownership structures over the value chain but the same focus should apply: each mill area needs to plot its own future. To do so, an appropriate level of dedicated technical, managerial and financial skills need to be available on location, while acknowledging that from time to time specialist outside expertise will be needed.

This most important need for profit centres to stand alone is compromised if the first loyalty of farmers or miller in a mill area is to State or corporate based farmer or miller sectional-interest organisations, as sometimes occurs. First loyalties of all parties should be to their mill area, not to wider sectional bodies. Mill areas are responsible for their own survival, not for that of all other mill areas. There should be no artificial "battle within" – the real "battle" is with the "competitor without", especially overseas competitors, as more than 80% of Australia's raw sugar production is exported.

4.3 Improving Local Negotiation

Sensible means of local negotiation are needed to agree returns for inputs

Farmer-miller

With multiple farmers of cane providing input to each mill, the option of collective bargaining by farmers of each mill area with their mill is needed. In Queensland, farmers are represented in each mill area by a Mill Suppliers' Committee. There is provision for this outside Queensland in one form or other. Duties of the Mill Suppliers' Committee include reaching agreement with the mill on details surrounding supply of cane to that mill. The term over which the agreement can operate is for one season or for numerous seasons, depending on the agreed wishes of the parties.

Dispute resolution

Arbitration is an issue. It is not desirable that arbitration becomes a customary way to avoid the responsibility that should accompany local leadership in genuine negotiation at the mill area level, for the good of participants in that mill area.

It has been submitted to the Assessment that the provisions for collective bargaining within the Queensland *Sugar Industry Act (and Regulation) 1999* ("the Act") are inadequate, and specifically that the "final offer arbitration" dispute resolution provisions are unnecessarily adopted by some as the default situation, for an inferior outcome. This final offer concept was meant to act as an industrial relations "nuclear deterrent", an incentive to avoid ambit claims.

The Assessment has been told that before introduction of the Act negotiations heavily involved lawyers. Farmers liked ambit claims and millers disliked outcomes which created precedent for other areas. Since the Act was introduced, arbitration has been invoked far less than was previously the case. Under the existing legislation, arbitration proceedings (and any of the other dispute resolution processes) can be abandoned at any time, provided that agreement is reached between parties. The effect of the current arrangements is that hard won conditions on either side which are no longer appropriate, should be and are able to be addressed by the leadership of parties in their *joint* interest. Compromise can be reached, with the assistance of a third party if necessary. Mediation is provided as a precursor to arbitration. The Act does possess the necessary flexibility. The Assessment sees time spent in aggressive conflict between co-dependent parties as sheer waste, and suggests facilitation as a practice worth substituting.

It appears likely to the Assessment that resort to habitual ("traditional") non-cooperative attitudes locally is the most likely cause of parties proceeding to default legislative mechanisms. In a mill area where negotiating parties act with genuine joint concern for their mill area's interest, it is likely that arbitration under the Act will never, or rarely, be used.

Mill-mill employees

Mill employees, being paid wages/salary, do not have the same owner's financial risk as does the independent farmer, unless or until the mill itself is at risk. In bargaining between a mill and its non-professional workforce normal industrial arrangements apply, on a corporate basis, with eventual settlement at the mill area. Because of a season length of less than six months there is seasonal employment for some, and therefore less financial security. Season length can be subject to late changes due to the present accuracy of crop estimation, or any delay in concluding negotiations. Union "turf wars" can limit the potential profitability available from the use of a multi skilled workforce, and/or competitive use of contractors. (One union only was interviewed, and viewpoints noted). As for any other salaried or waged workforce, jobs are dependent on profitability of the business. Employer awareness of the need for training and safety is always required, as are genuinely local negotiations.

4.4 Attitudes to Investment Return

Proprietary miller's view

A mill is a capital intensive factory built and maintained from a body of capital provided by capital markets, either as loans or equity. It has salaried employees and high fixed costs. Financial disciplines need to be strict and throughput needs to be maintained.

Shareholders in proprietary mills, the principal example being CSR, have a choice where to invest their capital. Their overwhelming primary interest is in economic returns from their investments which equal or exceed economic returns available from alternative investments. If such economic returns are not forthcoming the mill will be sold or perhaps even run down through lack of capital maintenance. Similarly banks are in the business of lending money for a fee, and move to protect their shareholders' interests. Mill staff might be committed to a mill but corporate shareholder-owners can only afford to be committed if the results match their economic aims.

The duty of a company director is to pursue the interests of all shareholders. There might be corporate duty to the community out of long term self interest, but it is not a duty that can exceed the fiduciary duty to shareholders' interests. This is the case for directors and management of all capital intensive investments.

Cooperative miller's view

To the extent that mill ownership is by farmers who through their mill ownership gain any revenues from diversification, mill and farmer interests should be aligned. Attitudes to return and financial disciplines are not necessarily aligned however, given the legal duties of a mill director. A cooperative mill faces the same high fixed costs as a proprietary mill. Difficulties with cash flow can result in break up of the mill, as one cooperative mill has recently experienced to the great distress of its farmer-owners.

Farmer's view

The assessor's non-farm background made him unfamiliar with the extreme degree of economic deprivation that many cane farmers were prepared to endure for the sake of continuation of the family farm. "Lifestyle" was often mentioned as one of the benefits of cane farming, which seems to translate loosely to acceptance of a significant social component in lieu of economic dividends. But prolonged economic deprivation eventually erodes lifestyle and is unsustainable. This was in evidence with many farmers either as groups or individually, and financier advice confirmed the heightened financial difficulties of many in the industry.

While cane farming has periodically been very profitable in the past, present market projections do not foresee that ahead, so changes for economic improvement are essential. It is unknown whether any non-economic behaviour or any traditional disputation by both mill and farmer bodies can be modified significantly. The Assessment concluded it should be clear to all that the stakes for the wider community are too high not to try to be more flexible for the good of the mill area.

Family farm ownership is the norm for Australia's rural industries, including sugarcane farming. The family farm is now further examined as an institution.

5. THE FAMILY (SUGARCANE) FARM

5.1 Impressions of the Family Farm

Family farms are the life blood of Australia's sugar towns. They comprise and support the permanent commercial and social activity in numerous townships and communities, some large, many small. As a group, family farms comprise "permanent economic custodians" of 525,000 hectares of arable land along Australia's east coast.

The basic sugarcane "family farm" has strong cost flexibility:

- The family employs limited or nil labour, turning a large part of what would otherwise be "fixed" costs into costs which are "variable" according to farm fortunes; and
- Farms which are not large enough to support a family can often be worked part-time if income from off-farm work is an option, thus keeping the land in cane production. However off-farm income is often from sugar-related businesses.

Social and ethical values accompany life on a family cane farm:

- Firm bonds develop between family members, with generational bonds to "the farm"; and
- Common values include fear of God, obedience to the law, and repayment of debts, with the normal farm work ethic and innovation.

There are also disadvantages of family farms:

- Retirement and family succession can create difficulties, especially when the farm's economic returns do not justify its perceived or historic exit value; and
- The Assessment was advised that business plans for cane farms (as opposed to annual accounts) are often minimal or non-existent, to a noticeably greater degree than for other agricultural industries.

5.2 The Small Family Farm (defined here as one employing no labour)

"The smallest 50% of (Queensland) canegrowers produce only 20% of the total cane crop while the largest 30% account for over 60% of the crop. Between 1994-95 and 1996-97, family partnerships and sole proprietors operated approximately 85% of Queensland sugarcane farm businesses. The majority of these farm businesses are likely to be family farms".

*(Source: DPI Queensland. Sugar Industry Profile 2001
Extracted from the ASMC Submission to the Assessment)*

The small family farm has the added disadvantage of having only a limited financial buffer in hard times, making it difficult to pay input suppliers, and placing stress on the farmer's own economic and eventually social (lifestyle) returns.

As industry needs to plan for sustainability, those who can best contribute to that aim need to be identified. Individual farmers will make decisions according to their own priorities. While crop rotation is desirable, mills need to be able to rely on a regular aggregate supply of cane from farms within the mill area. "Weekend farmers" or others who regularly supply smaller quantities of cane certainly have a place and need to be considered, especially as cane expansion lands are difficult to obtain. This Assessment however considers that farmers whose livelihood lies mainly or significantly in producing a cane crop each year are those to be considered as a priority.

5.3 Cost Effect of Farm Size

There is a variable practical limit to the size of a farm that can be worked by a basic family unit using minimal or no employed labour, and not all farms are the size for optimum productivity of the labour or machinery units involved. The average Cane Production Area (CPA) in Queensland is 72 ha. Some CPA's combine to form a larger farm unit. The average Queensland economic unit (defined as one with a single decision making structure) is 101 ha. (Pfeffer: ASSCT 2002)

The farm crop size required to provide a satisfactory living for a family was variously rated as being 10,000-15,000 tonnes minimum, depending on local conditions, in particular whether rain fed or irrigated. Some rated the necessary crop as higher, to 20,000 tonnes, some lower, to 8,000 tonnes. Some farms might need to support more than one family. Average harvesting unit costs per farm are increased (whether borne by farmer or more commonly borne by the harvester business) by the practice of "farmer equity". Harvesting and "farmer equity" are discussed later.

ABARE (1996) concluded that there was no empirical evidence of economies of size in Australian cane farming. This was based on an analysis of the cost of production data from the ABARE survey for the year 1994/95. A more detailed report by Tessema and Topp (1997) provided a similar view and a useful frequency table of average costs by size of farm (Figure 10). These data showed that there was no consistency in the cost of production by size of farm, and that considerable numbers of very efficient producers fell in each size category.

Figure 10: Distribution of unit cost of production by size of farm

Area	<34 ha	34-45 ha	45-65 ha	66-94 ha	>94 ha	Total
Unit costs (\$/tonne)	%farms	%farms	%farms	%farms	%farms	%farms
Less than 23	2.7	4.9	2.6	5.0	4.9	20.1
23 to 26.5	3.0	4.4	3.3	5.3	4.0	20.0
26.6 to 30.0	4.5	4.9	4.9	2.3	4.0	20.6
30.1 to 35.2	4.0	1.9	5.1	3.5	5.0	19.5
>35.2	6.0	3.6	3.9	4.0	2.6	20.1
Total	20.2	19.7	19.8	20.1	20.5	100.3

Source (Tessema and Topp, 1997)

A likely explanation suggested in the Tessema and Topp study is that there are mechanisms that smaller farmers can use to avoid capital and labour "lumpiness" such as strategies of contracting, working off-farm, and also being more flexible, timely, and careful with their own labour inputs to the cane enterprise. The ABARE conclusion of an absence of economies of size was used in the report of the Sugar Industry Review Working Party to argue that the cane assignment system was not impeding the achievement of size economies in cane farming.

However from the collation of the many sets of unpublished data volunteered to the Assessment (most offered in confidence) it became clear that there is a significant inverse relationship between cost per tonne and size of farm: in general costs per tonne of cane decrease as farm size increases.

While all the available data sets do not appear consistent with one another with regard to size, there are sufficient data to conclude that economies of size do exist within the current industry structure. Further, the farm sizes analysed from the ABARE survey data only cover broad groupings of size, with the largest farms grouped into the greater than 94 ha category. If economies of size apply to farms towards the end of, or even outside of the current industry size distribution, any economies of size might not be demonstrated in the analysis.

There is an even more powerful argument for pursuing changes to structures in the industry associated with farm size. The existing cost data assembled are influenced by the past and existing set of industry arrangements and structures. These arrangements and structures are based on equity and sub-optimal efficiency goals, rather than whole-of-industry efficiency. Changes to these arrangements might well result in economies in farm size becoming more apparent than hitherto.

Additionally, greater size farms would give farmers greater (financial and logistical) flexibility to implement on-farm environmentally beneficial methods, without significantly decreasing overall crop area.

5.4 Small Farmer Influence

In matters of policy, each farm has equal voting rights for electing representatives to mill supply bodies and to farmer organisations, no matter what the size of farm. This also ensures a financial and policy bias in favour of smaller farmers, as levies and membership fees are charged on a crop tonnage basis. Political bias is in the same direction for the same reasons. This is not to decry the basic worth of a small farmer, but to explain what is commonly known by all industry participants. The counter position is that small farmers, more particularly family farms, are the life-blood of the local communities, often with little other employment available. A balance is required: how to keep the owner-motivated virtues of the smaller family farm while taking advantages of whole-of-industry economies available from a degree of farm rationalisation, so providing a greater competitiveness and economic return for all participants. The issue of environmental stewardship is also relevant for an economically sustainable continuing industry, and is discussed later.

As technology and competitiveness of the industry have changed it would not be surprising if the Australian industry had adapted around the needs of the small farm more than the small farm had adapted to the change required to improve international competitiveness. It was concluded that this is likely to be the situation for a significant proportion (but not all) of the Queensland industry. While it does not seem to apply to the NSW or the Ord River areas to a noticeable extent, Queensland comprises most of the industry.

The structure of industry ownership and representation is relevant to the conclusion above and to farm and mill area economics. These are now examined.

6. COMPETITIVE RELATIONSHIPS ALONG THE VALUE CHAIN

FARM ► HARVEST ► TRANSPORT ► MILL ► MARKET

6.1 Cane Pricing

Farmer and miller ownership of steps in the raw sugar value chain can occur in many combinations. At every change of ownership along the value chain competition occurs for returns, causing a “pricing of value added” to be negotiated. The model with fewest ownership changes along the chain should provide least conflict.

The basic “value added pricing” competition in raw sugar production is the negotiation for returns to farmer’s cane input versus miller’s manufacturing input. A formula was established for Queensland in 1916 that measured the sweetness of the juice of each consignment of cane when first crushed at the mill, reflecting the raw sugar that could be extracted from that consignment of cane. This “cane payment formula” has survived with marginal modification. Sweetness measurement forms the basis of cane payment in NSW and Ord also.

This established formula allows farmers to participate in the proceeds from the resulting raw sugar stream. Outputs which contain residual sugar after mill processing such as molasses and bagasse are treated as the property of the mill. Bagasse, the fibrous remainder of cane after processing, was considered to be an un-priced fuel source for generation of mill process steam and electricity. Unused bagasse was considered waste, for mill disposal.

There are subsidiary competitions within the pricing of cane from the cane payment formula:

- *Farmer vs farmer* for share of the harvest period when the cane is at its sweetest. This competition is resolved by the compromise of farmers being scheduled in turn to deliver fractions of their crop to the mill, with multiple repeats of the process until all is harvested (“farmer equity”).
- *Farmer vs harvester* if harvesting is performed by a contractor. Contractors are by practice paid a negotiated unit fee unrelated to the price of sugar. (This assumes that the farmer pays for harvesting, which is the normal process. In the Ord, harvest and transport is a first cost deduction from sugar revenues before farmer and mill share in proceeds. Shares are determined according to their own negotiated formula. This removes one subsidiary conflict and achieves harvesting in the Ord by one contractor only.)

6.2 Implications Along the Value Chain

If all of the value chain is owned by the mill (“all miller” route) then each input stage can be treated as a cost centre, with no competition until sugar product meets marketplace competition. In reality supplier farms are seldom all owned by the mill, but in Brazil’s plantation style of industry this “all miller” model can be approximated by a proportion of that industry.

If all of the value chain is owned by farmers (“all farmer” route) then apart from subsidiary farmer-farmer and farmer-harvester competition noted above, value adding stages up to market can be treated as cost centres. In reality farmers negotiate hard for their value added share to be priced at the farm-mill transfer stage using a “cane payment formula” rather than wait for the surplus to be distributed after sale of product.

The “all miller” route above therefore has least inherent conflict along the value chain. The “all farmer” route above has “next-least” inherent conflict. This model exists in the New South Wales Sugar Milling Cooperative, where there is indeed a notably low, managed level of farmer-mill conflict. For example, cooperation in and management of harvesting results in high harvesting performances.

Queensland has many models, from a mix of cooperative mills, proprietary mills, public and private mills. Some proprietary or public mill groups own farms. Harvesting is done by contractor, harvesting cooperative, or farmer. Mixed value chain ownership models might logically be expected to generate greater inherent conflicts, but the outcome seems variable. The variability is not so much from the model adopted, but from the degree of cooperation and trust between parties, and commitment as interdependent parties to shared *mill area* goals. It is a matter of where first loyalties lie. Cooperation and trust cannot flourish without acceptance of a shared goal.

A key is the commitment and unambiguous first loyalty to the mill area of each of the farmer negotiating group and the mill representatives.

The remainder of this section on resolution of value chain conflict refers to Queensland. Queensland is a much larger producer with a long institutional history. All participants in NSW and the Ord have sole focus on their mill areas, and a good record of cooperation and resolution of conflict between farmer and miller. This mill area focus and appropriate accompanying cooperation are not demonstrated in general in the Queensland industry, although there are notable exceptions.

6.3 Farmer Vs. Farmer (“Grower Equity”)

When harvesting was performed by hand cutting there were several harvesters per farm. Now a mechanical harvester's capacity is perhaps 16 times the size of an average farm, requiring frequent cleaning and movement of equipment to harvest a proportion from each farm in turn in multiple (5-8) passes until the harvest is complete. If a farm were large enough to occupy one harvester machine full time the question of movements for equity reasons would be redundant. However, very few farms are so large.

The relevant question often asked is: “are there economies of scale in cane farming?” It has earlier been mentioned that the report of Sugar Industry Review Working Party argued that the cane assignment system was not impeding the achievement of size economies in cane farming, acting in absence of advice to the contrary.

The Assessment spent considerable effort in first analysing existing data, then new data obtained progressively from submissions over three months, to test the question of size economies again, as the answer affects the potential for improvement in farm economics for the industry as a whole. The Assessment concluded that the answer is affirmative (see Appendix E), and then examined whether there was a way of achieving larger farms.

It was clear from submissions that few farmers had appetite for borrowing to buy neighbouring farms, and fewer still had cash to do so. The Assessment met cases where experienced farmers who had heeded advice to “get big or get out” now had loans to banks that they could not service and some were facing bankruptcy, due to a series of adverse seasons and the now low sugar price. There were also graphic cases of family troubles from attachment to smaller family farms where there was no succession. One 80 year old farmer still working could not sell his farm without losing his ability to own his own home after a lifetime's work, and had no successor. Another case was of a district having gone from more than 70 employed hired labourers on small farms to only two – and those two were for physically incapacitated farmers. There were numerous similar cases encountered, including drawdowns from superannuation to keep the farm going for another season, only to find it worse than the last.

Cooperative farms

The Assessment concluded that larger farms could best be achieved with resulting improved efficiency from re-organisation (wherever possible and agreed upon) into “cooperative farms”. These cooperative farms would be of a size to allow a dedicated harvester or harvesters to operate at full capacity on the cooperative farm without “farmer equity” inspired moves. Full harvester capacity is regarded here as 100,000 tonnes per year but could vary a little depending on location and season length. This route would have the aims of:

- elimination of constant rescheduling of the harvester to suit the needs of farmer equity, therefore saving movement costs and time across a larger (cooperative) farm;
- retention of farm title and place of residence (i.e. no sale), but assignment to the cooperative body of the sole right to grow cane on the property in return for income from the cooperative farming structure;
- possible employment on the cooperative, or seasonal employment;
- cost reduction through higher productivity; and
- spreading of farm risk (including end of harvest rain risk) by part-ownership of a much larger farm.

The exercise requires iterative “shed” meetings to be addressed by a small travelling party with expertise in cooperative farms. There are likely to be several such meetings needed, suitably spread over a period for all issues to be properly understood. A decision to commit to a cooperative structure would then be able to be taken in full knowledge of what is involved. Such a decision is obviously not one to be taken lightly.

It is most important that each potential cooperative area is carefully analysed for potential cost and profit improvements to determine whether the move to a cooperative farm is worthwhile after these improvements. Some areas, for example those broken by creeks, might show insufficient gain to be suitable.

The “cost” of a farm cooperative is of course the need to cooperate, and loss of one’s right to manage the farm. A cooperative manager would be appointed by a small body selected in each cooperative and would manage the whole cooperative within policy guidelines set by that body. In time some participants could however purchase others’ shares in the cooperative when available. It might not seem ideal for those who have no experience in cooperation, but as economic difficulties are the main problems foreseen in the current circumstances, cooperation is an alternative to the possibility of no mill and therefore no cane farmers at all for some areas. For some there might be little alternative to a cooperative for personal reasons.

As many factors need to be considered and potential benefits agreed before embarking on this course, a leading specialist in the law relating to cooperatives was commissioned to give advice on the matter. Her advice, which forms the basis of Appendix F, indicates that agricultural cooperative structures are very widespread.

Leasing

Farmers who wish to exit the sugar industry often refer to the historic values of farms, which cannot be realised today and are unlikely to be realised into the medium-term future, unless farm costs reduce. If farmers are obliged to exit, perhaps due to age or incapacity, and selling is unfeasible or undesirable, an alternative to the cooperative model would be to lease the farm. However, it was submitted to the Assessment that it appears that the current lease rental available in the market was also well below expectations.

With the leasing option unlikely and if the farmer rejects the cooperative model approach, the alternative of forced exit could mean inability to replace a home, and for some, inability to repay debt.

6.4 Farmer Vs. Harvester Contractor

There are approximately 1,200 harvesting machines in Queensland, with a requirement for perhaps less than 50 percent of that number. Some areas have high productivity harvesting arrangements. Not surprisingly there is fierce competition for customers between contractors, some of whom are also farmers. Prices for contract harvesting in Queensland are in general today lower than cost. Contractors are not able to withstand the pressure from those farmers with high cost, difficult-to-harvest farms “riding” on the quote from an easier-to-harvest neighbour, thus creating a harvester loss and/or a cross subsidy to the higher cost farm. Existing practice is for independent contractors to operate on no documentation at all, for a season at a time, while their equipment has a life of 4-5 years and a minimum replacement cost of the order of \$1 million for harvester and haul out vehicles.

The contract harvester system as at present seems clearly unsustainable. Sale of new harvesters has plummeted, with manufacturers surviving on exports (one manufacturer has sold only nine machines domestically this year, as opposed to 64 last year). Rationalisation of harvesting structures and operation in Queensland are inevitable, with surplus equipment likely to cause harvester business failures. Harvester contractors are (surprisingly) normally left out of consideration in industry negotiations but in this case need to be considered equally with those who are forced to leave farms for economic reasons.

Harvest and transport cost is a high proportion of cane price delivered to the mill and is acknowledged as having scope for scheduling and efficiency improvement. This might not be translated into lower harvesting prices however as many harvesters are today operating (unsustainably) below cost. While the Assessment cannot mention many technical items, the loss of sugar between standing cane and cane into mill has been reported as being very high. The Assessment views recovery of any substantial loss of sugar in the field during harvest as being the most obvious and potentially the least costly economic gain available. It is also a worthy environmental target as it would reduce sugar runoff after rain. The Assessment sees the discovery of ways to minimise such losses as being of the highest priority for both mill and farmer, as does the industry.

6.5 Farmer Vs. Miller

Farm meets Mill in the Mill Suppliers' Committee (MSC)

The Mill Suppliers' Committee (MSC) is a statutory body elected at the local level by cane farmers. It is of primary importance in mill-farmer dealings at the mill area level, being a body of farmers elected to represent colleague farmers' interests in detailed negotiations with their receiving mill. In particular it is concerned with harvesting and transport arrangements. In doing this, the MSC needs to have the confidence of and encourage cooperation amongst its farmer body.

Mill areas have earlier been identified in the Assessment as the profit centres of the industry. Therefore the MSC is closely examined in this section.

Understanding the MSC requires a layman's tour of its recent metamorphoses.

How are MSC's appointed and how do they operate?

For the 73 years from 1926 until 1999, membership of the Queensland Cane Growers Organisation (QCGO, known as CANEGROWERS) was compulsory for every Queensland cane farmer. MSC's before 1999 were formed by election amongst cane farmers who were without question also members of CANEGROWERS. The elected MSC (and the mill) would then appoint members to a “negotiating team” to negotiate matters of joint interest, principally how harvesting and transport were to be organised.

In 1999 CANEGROWERS membership ceased to be compulsory for Queensland cane farmers. The Queensland *Sugar Industry Act 1999* (the Act) provided for election of MSC by all cane farmers, whether members of CANEGROWERS or not. It is understood that a transitory arrangement was reached between CANEGROWERS and the Queensland Government whereby CANEGROWERS constitution would provide for its own mill suppliers' committee by that same name (here abbreviated as CMSC), and both CANEGROWERS constitution and the Act would allow this CMSC to be the MSC if a majority of all cane farmers so voted, whether members of CANEGROWERS or not.

CANEGROWERS today has more than 90 percent average membership of all cane farmers (while it is understood that in at least one area the number is far less than that average). CANEGROWERS is understood to have elected its own teams to CMSC's under its constitution in all mill areas before the scheduled expiry of appointment on 30 April 2001. CANEGROWERS subsequently offered those CMSC teams to all Cane Production Area holders (as provided for in the Act) in each mill area for adoption by a majority. Not surprisingly given 73 years of compulsory membership of CANEGROWERS and today more than 90 percent average voluntary membership, all but one of the CANEGROWERS CMSC teams offered were endorsed as MSC's. (The remaining mill area initially cast insufficient votes for the election to be valid but this has been settled.)

In the CANEGROWERS constitution, CMSC members have a duty to CANEGROWERS that is separate from the duties of the MSC under the Act. Two clauses from CANEGROWERS constitution are quoted below:

Clause 2.6 (m) (the CMSC is to) "carry out the functions of and otherwise act as the mill suppliers' committee for the purposes of The Sugar Industry Act 1999 to represent the Growers in the area who supply sugarcane to the Mill Suppliers' Committee Mill", and

Clause 2.8 "Each Mill Suppliers' Committee (i.e. CMSC) must carry out its functions to the satisfaction of the Board and in accordance with any written directions given to it by the Board" (of the QCGO Ltd, CANEGROWERS).

Clause 2.8 was described on enquiry of CANEGROWERS as necessary for governance. The Assessment accepts fully that governance oversight of any body is essential, but if independent by its own board. The words above from the CANEGROWERS constitution leave open to a reasonable person the interpretation that an MSC arising from adoption of a CMSC might be subsidiary to the Board of CANEGROWERS. A practical contra view might be that an MSC has insufficient "corpus" to manage its "rations" separately and so needs to rely on existing infrastructure.

The Act has given MSC's scope for flexibility, with most arrangements able to be varied, except marketing of sugar which must be through the central marketing body, Queensland Sugar Limited. This ability to vary conditions was a significant advance on the situation to that date.

MSC's and harvest-and-transport

Harvest-and-transport forms a significant component of cost of cane delivered to the mill. If all harvest and transport operations were owned by one party, the harvest-transport would be treated as one optimisation exercise, from standing cane in the field to cane delivered to the mill, and managed accordingly. The structure as it exists could however include two or more of the categories: farmers (hundreds), contract harvesters (several or many machines operating), contract truck fleet/s, and the mill, each under different ownership. The MSC is free to negotiate as close an approximation to ideal harvesting and transport as it can devise.

In matters of optimisation of harvesting and transport the mill appears to the Assessment to have the clear advantage of resources and knowledge and could improve its use of these by taking a lead in partnership with the MSC. This might be done already more widely than appreciated by the Assessment but it is suspected that there would be room for improvement. The mill has an overview of the whole system whereas the MSC has the aggregation of harvester activity and no dedicated officer for analysis. It is assumed this means depending on the mill. This cannot be taken for granted unless trust is at a high level. Farmers express reasonable frustration at not having the same knowledge of mill costs as millers do of farm costs. Harvesting and transport are so much easier in this circumstance for the miller to take a lead in this large component of cane cost. Twenty four hour harvesting assists a miller to even out the deliveries to mill through averaging the demands on the transport fleet of the miller. If 24 hour harvesting were adopted in an area it would bring with it environmental (noise in harvest area and road/rail haul noise) and safety (including screen smear visibility, creeks, power lines) and farming (plant "stool" damage) considerations. Optimisation of harvest and transport seems to the Assessment to pose a most difficult task for an MSC that is not "part of the mill's story".

The area of harvest and transport activity has been declared by industry as a priority for quantum gains in productivity and the miller with its transport specialists seems best placed to offer a lead. Coordinated mill area harvesting contracts might be possible with cooperation.

The consequences of harvester rationalisation is another issue to be considered. The Assessment notes that contract harvesters are vital to the industry, yet operate on little or no security of contract term, and with little or no consultation by the negotiating group. If, as the Assessment believes, the harvester operator is normally outside the MSC-mill "tent", the resulting plan will normally not be optimum.

Some examples of novel arrangements in mill cooperation in this area are known. The Ord harvesting "first charge on sugar proceeds" arrangement has already been noted. The single harvester operator (from Mossman!) is on a term contract that appears to be related to economic life of equipment.

In some mill areas the MSC needs more training assistance for programs that propagate the potential benefits of cooperation in harvest, through "best practice" and "strategy" sessions with the farmers. Several areas have already been through the process. The Assessment is aware of the needs for technology transfer to reach the correct targets. Extension has several agencies' involvement, including the Bureau of Sugar Experiment Stations and local Boards. Economies and efficiency gains have been made in several places, for example in Mossman where services are combined to make Mossman Agricultural Services. It has been suggested that farm extension is best attached to the mill which would allow unbroken communications and another mill link for farmers. However this arrangement would not necessarily have all the skills in-house. These could be contracted from external specialists on an as-needed basis.

MSC's and negotiating freedom

It is understood that the freedom offered in the Act for individual MSC's to be creative by negotiating terms different from other MSC's terms has to date been dampened by a lifetime habit of seeking collective CANEGROWERS approval. The Assessment sees nothing in the CANEGROWERS constitution to this effect, with the possible exception of Clause 2.8 above. The Assessment did however receive submissions from many parties that a "default to CANEGROWERS-collective" situation applied. One (accomplished, non-timid) MSC member on being queried why his MSC did not use its freedom to act independently said: "that's not the way it works". If this is so it is a lost opportunity, and if it represents the facts would also be seen by the Assessment as a sign of under-confidence.

It would be concerning if there were timidity in MSC's in considering or adopting new ways for mill area improvement in such difficult times. If timidity were result of peer pressure through wider-than-mill-area first loyalties, or moral suasion of other mill areas, the concern would be even greater, and either of these might well be the fact of the matter. Old habits sometimes die hard. The Assessment was pleased with CANEGROWERS assurance that MSC's have freedom to operate independently.

Equality, yes, but of what?

Voting in CANEGROWERS (and also in its aspiring rival for "turf" Australian Cane Farmers Association) is equal across its farmer membership, but the membership fee is based on tonnes of cane produced. The CANEGROWERS organisation, having a majority of small farmers, is assumed by the Assessment to be financially quite dependent on larger farmers remaining as members.

Figures vary across mill areas, but for example here it is assumed for illustration purposes that 50 percent of the members produce approximately 20 percent of the cane supply. A vote of this 20 percent of the cane supply could determine 100 percent of the membership of all of the CANEGROWERS senior representatives, of CMSC and of the statutory Mill Suppliers' Committee. As lack of profitability is the key industry problem and is likely to remain so unless there are much greater than incremental changes, larger farm groups are seen by the Assessment as part of the solution. Yet the MSC might be able to be elected by those representing 20 percent of cane production, on a CANEGROWERS "unity" ticket.

The Assessment notes that while voting arrangements in CANEGROWERS are not the Assessment's concern, CANEGROWERS is undoubtedly controlled by the small farmer vote. For profitability or even survival reasons, the mill area focus proposed needs to be accompanied by a move to larger farms. If small farmers are able to veto an economic outcome by voting or by peer pressure, it works against the economic well being of the whole mill area where all within it are inter-dependent: "marriage without divorce".

The Assessment concludes that for improved mill area economic outcomes, election to the Mill Suppliers' Committee specified in the Act should be completely free of any link whatsoever to the constitution of CANEGROWERS (or of its ACFA "rival") and that no "unity" tickets should be permitted.

It has also been submitted that mill representatives often resort to an inflexible "default" stance of their own, sometimes including corporate concerns relating to other mill areas, sometimes related to "tradition". The Assessment believes this is most counter-productive to development of the good faith and trust necessary for any one mill area's ability to produce the optimum outcome for that mill area.

Any resort to default positions by either mill or MSC would inevitably lead to negotiations over marginal variations only around the norm, in investment parlance casting negotiating team members of both sides as short term small "traders" rather than as serious "investors" for the longer term.

Use the talents of the most successful farmers

The Assessment also proposes that election to the MSC not be on one vote for each farmer, but be closer to financial interest of farmers, for example as measured by tonnes delivered to mill in the previous season or seasons. This is a clean break with tradition, but the status quo has produced only extremely slow progress, whereas significant progress is demanded. Gauged by some public submissions to the Assessment, small farmers can be influenced more by fear of high vulnerability on relatively lesser issues than by the critical and higher priority of lowering total industry costs for the good or even the survival of themselves and the whole mill area and community.

A cautious response to this suggestion is understandable, but if something is good for most or almost all the mill area, it must be possible to proceed and also afford some consideration for the most vulnerable. If, for example, part of a small farm has riparian zone repair difficulty in the future, some consideration could be given to that in a practical manner rather than stop progress for all others. In such an hypothetical case an additional solution might lie in being part of a farm cooperative with others sharing the burden, perhaps with assistance from an available government program. The Assessment is only part-aware of the collegiality that exists in farming areas for anyone in trouble, but is aware it is very strong and spreads across large and small farmers alike.

The Assessment believes that fears of dominance by larger farmers (in a voting system changed to that proposed above for election to an MSC) are highly likely to be unfounded. It is quite likely that those elected will often be successful small farmers with more time available, especially if the leading ambition of the small farmer is economic success of the mill area. They could be small farmers or young farmers or women farmers with better ideas. Intimate knowledge of “the way things have always been done around here” is to be questioned, and not given automatic authority.

The industry's future is in the hands of the young farmers. They need encouragement. The Assessment saw too few on its circuit. New entrants also need encouragement. Despite the past fears of incumbent farmers, newcomers also are the future, and can bring new visions. The Assessment is confident that innovative and thoughtful candidates of any description would be supported by larger farmers. Larger farmers interviewed had full concern and support for the small farmer, without whom they reminded the assessor, there would be no community. The larger farmers would be expected to lend strong support to a strongly profit-oriented (as opposed to fully tradition-oriented) farmer negotiating team.

Mill negotiators

Exactly the same types of consideration would apply to the stance of mill negotiators. In their case the freedom to question “the way things have been done around here” is equally necessary but would have a different flavour. Being subject to the mill corporate chain of command they are most unlikely to break from customary behaviour unless they are sure it is the wish of their leadership.

Mutual respect and trust are the keys to effective functioning of the MSC and miller. Trust and mutual respect are more likely to develop if parties are equally commercially able and sensible, identify and deal with the big issues effectively, and have no fear of breaking away from “tradition” if mutual benefit is indicated. Effective functioning of the MSC is obviously a key to maximising a mill area's profitability.

The miller is likely to have enhanced respect also if farmer negotiating parties are backed by those with substantial personal financial investment committed to the mill area. An MSC supported by successful large and small farmers together should be able to face a break from tradition with more confidence in successful business outcomes.

The human resource balance sheet

The Assessment concludes that even with the best people in a mill area being put forward there is a great need for significant improvement in business management skills in the regions to realise individual mill area potential. There is a general lack of the full suite of business management skills, probably because the industry is more production-oriented than profit-oriented, having been separated from the marketplace by Queensland Sugar Limited.

The Assessment was open to submissions from anyone and became aware of muzzled talent from the regions: men and women with ideas but lacking experience and sometimes stilled by what they described as older, conservative miller-corporate or hierarchical farmer-corporate bodies.

Here's a chance for the farmers

Resources are needed for the operation of MSC's. Recently the Queensland Minister for Primary Industries announced that regions will be asked to decide what they wish to do with the regional resources held in trust for the MSC. This then is an ideal opportunity for regions to take control of their own destinies.

Is the mill area, MSC or mill, making too many demands for help from the centre when it should be standing on its own more often? The Assessment suspects that the mill can provide great assistance in strengthening the MSC for mutual advantage, but even then some outside business tutoring assistance is likely to be needed. This business education is likely to be a longer-term need, given the starting point.

CANEGROWERS is a centre of farming information, having recently adopted from Queensland Sugar Limited the duties of keeping farm statistics. Through efficiency gains already made in centralisation of information technology systems, the Assessment believes CANEGROWERS could, if it wished, provide an ideal and cost effective independent fee-for-service bureau to continue to service individual Mill Suppliers' Committees, even though elected outside its constitution and being independent of CANEGROWERS organisation. If CANEGROWERS decided not to maintain such a bureau, the MSC's would be subject to the expense of investment in other facilities that in the short term might not be feasible or would be expected to be very costly. At the very least a transition time is needed.

In any case CANEGROWERS is at present bearing a disproportionate cost of maintaining the MSC's, because some who deny the legitimacy of a CMSC are not paying their share of local costs of representation. If CANEGROWERS membership declines (which must be a possibility given such a large present share of farmer membership, possible dependence on fees from some large farmers disillusioned if there is limited progress on profitability matters, and poor present economics) the need for disproportionate funding from CANEGROWERS would increase.

Paradoxes

It is an interesting paradox that CANEGROWERS organisation, which is working hard to assist its members, including its many small farmers, is perceived by many small farmers in the regions as a corporate juggernaut. This perception is gained presumably because CANEGROWERS is very strongly managed, trades hard and follows its charter effectively. Has CANEGROWERS been too successful for its own good?

Many farmers in the regions respond favourably to any aggressive statements from the representative body at the centre, but the Assessment believes such statements work against their interests. Such farmers often have unrealistic expectations of what others can do for them. Productive engagement should be the priority for any representative body.

Elections

The next Mill Suppliers' Committee elections are understood to be scheduled for April 2004.

6.6 Mill Area vs. Mill Area

It has been described earlier that all mills have high fixed costs. This brings about the following issue.

Mill economics

The Assessment was informed that other things being equal, every mill wishes to expand, to spread its fixed costs. Traditionally this has been achieved by expansion of farm area. With this less likely in future, higher productivity of farms is the alternative path, or merger of some mill areas accompanied by a mill closure if overall cane supply is permanently reduced.

The present system will not achieve mill expansion for all, so some mills might in time close, as others have in the past. Submissions have been received from farmers that they wish to transfer between mills for reasons of a higher cane price offering. It is normally a request to transfer from a proprietary mill to a cooperative mill. This has the advantage of allowing a farmer some share of mill surplus distributed as a bonus on cane price, whereas a proprietary mill will retain any mill profits for the benefit of shareholders.

The present Queensland legislation allows such transfers provided both mills agree, which provides a clear veto, in favour of "no change". It is possible that if transfers were at the option of the farmer, the mill might in exchange ask for the option to select between farmers. With only the farmer having the option to change it is likely that the cooperative mill would have a greater radius of negotiation than proprietary mills, depending on size of the cooperative's bonus.

The Assessment reaches no conclusion on this issue but it raises a larger issue: is a cooperative mill an inherently more suitable structure for the sugar industry? (Certainly there is less inherent conflict.) The answer to this question is beyond the resources of the Assessment. Several successful mill cooperatives exist in Queensland, but then there are equally successful non-cooperative mills, an outstanding example being Maryborough Sugar Factory, a stand-alone mill area company listed on the stock exchange. This mill has, through cooperative strategic development with farmers, been able to substantially improve cane supply and mill throughput, making the mill area's future much brighter than it would have been otherwise.

In the area from Tully to Mossman there are some less than ideal arrangements for transport of cane, with some cane passing a mill to supply another some distance further. While elements of this might be needed for short-term reasons, and while it is acknowledged that there now is more chance of rationality with three coastal mills in common ownership, a commercially negotiated solution is desirable, taking account of any environmental factors also. This is within the subject area of the excellent Far North Queensland (FNQ) Sugar Industry Task Force report previously mentioned. If no commercial solution to transport rationalisation is available it could revert to "last man standing", with mill areas falling in order of vulnerability, along with many supplying farmers. That would clearly be far less beneficial overall than a negotiated outcome, especially for an area so dependent on the sugar industry's health. Cane supply rationalisation is firmly in the hands of millers as no farmer has the ability to change between mills. The Assessment believes that miller parties should together consider optimising cane supply in the FNQ region for the best overall outcome (with balancing items as needed), if necessary assisted by an outside expert facilitator, and ideally in the short term.

In the same context as the comment above on rationalisation of transport, there are strategic rail links in the Tully and north area that await infrastructure funding from a previous package. The links have been advised as being of significant benefit.

7. MARKETING

Queensland Sugar Limited (QSL) is a statutory body with the power to acquire and market all raw sugar produced in Queensland, and to distribute the proceeds to farmers and mill via the mill. It was evident to the Assessment that the establishment of QSL provided very substantial cost savings for Queensland farmers and millers. The Assessment could see that QSL provided a centre of highly professional management and marketing expertise. For a state that produces most of Australia's sugar and with the greatest exposure to the international market, this Queensland arrangement for marketing direct to customers with the benefit of averaging out specifications for customers appears to the assessor today to be highly logical and an effective and respected resource for export of sugar. There is an offset against this, however, as mills are separated from their markets.

It was submitted that QSL, by averaging proceeds via a pool, failed to give clear market responses or sufficient penalty/reward back to mills and farmers on farm and mill performance in meeting market requirements. Moves have been adopted to address this matter in part. It was further submitted that specialist markets might exist for sugar product in smaller quantity than QSL with its power of acquisition might wish to serve. This and other matters were advised as being addressed by QSL.

It was submitted that QSL, with acquisition over all Queensland raw sugar, made an otherwise unnecessary interim step necessary for domestic sales to a mill, even to use its own production in its own on-site refinery. The question of separating acquisition powers of domestic from export sales arose. The Assessment believes this matter should be able to be catered for, requiring modification of QSL acquisition powers. The Assessment would not expect such a modification to interfere with availability of raw sugar for QSL export marketing.

It was submitted that QSL acquisition powers could stifle development of ethanol production if a portion of the sugar stream were to be needed for ethanol feedstock, rather than only molasses as is currently the case. The Assessment believes that a solution will be found by QSL for new developments such as ethanol from the sugar stream, but ethanol would probably need to have first call on the sugar stream for maintenance of the domestic market. This in turn would mean that sugar production would be lower, and raw sugar production would suffer the full effect of crop variations, making for a very volatile sugar output destined for export. This feature would first require resolution with QSL of effects on export raw sugar marketing.

Farmer security over funds distributed from QSL via the miller was raised in a submission. It was concluded by the Assessment that a farmer charge of some description on the farmer share of funds at QSL needs to be provided. While today it is a matter of a slight delay of funds via the mill, the Assessment believes the farmer's funds should never form part of mill property, even for a short time, but be held in trust or with right of title to the farmer. The issue is highlighted when funds are passed to a mill in receivership. At present farmers have no priority of claim to funds rightfully theirs. This was illustrated in the case of South Johnstone, a farmer owned cooperative mill, where farmers forfeited to the receiver their share of pool proceeds.

8. THE ENVIRONMENT

There are many environmental and natural resource issues that have been raised concerning the sugar industry. Water links many of these issues and is therefore paramount in the following analysis. The following relates to the Queensland industry only.

8.1 Overview

The beginnings in Queensland

Sugar production pioneered many areas of coastal Queensland, bringing primary and permanent secondary industry to the regions. In line with the standards of the times and encouraged by government, coastal plains and wetlands were cleared of forests and indigenous inhabitants disturbed to establish farms and mills. South Pacific Island indentured labourers worked the fields. Over time, these areas have become more accessible because of ease of transport and communications, and recognised for their great beauty. Tourism, light industry and associated infrastructure have flourished over the years on former cane lands or in close proximity to cane farms and sugar mills.

Many other industries have been established around sugar areas. Some have grown faster than the sugar industry and many people have migrated from other states to build a future there. Queensland's considerable natural attractions include the Great Barrier Reef World Heritage Area and the World Heritage listed Wet Tropics Rainforests, both of which are known worldwide. Tourists are now a major source of income. Thus, from a quiet beginning, the sugar industry is now a neighbour to the world – and visible to the world community.

How standards change!

The standards of acceptable environmental practice have become progressively higher over the years. The sugar industry has been and is conscious of the beauty surrounding it. However the farming of 440,000 hectares, much of it near the coast, with its green fields and harvest has made the industry environmentally noticeable. Although cane was the first industrial arrival in the majority of sugar areas, so were forestry and later mining the first arrivals in other coastal areas, including Fraser Island. The fact that sugar has been there a long time is therefore not a relevant issue.

Environmental sustainability has clearly been established as a community goal, one that is becoming increasingly enshrined in government policy in most countries of the developed world. Continuing community consent is required for ongoing industry operations and the need to protect the Great Barrier Reef World Heritage Area against preventable harm will not diminish.

Water quality and the Great Barrier Reef lagoon

Water quality is an issue everywhere, whether water is in oversupply as in North Queensland, or scarce as it is inland. Like any other agricultural activity, sugar production uses natural assets – soil, water and ecosystem functions – as production factors, and manages those factors to achieve financial goals. There are many on-farm (paddock) and off-farm (downstream) environmental water quality issues relating to the sugar industry and these are listed in Appendix D. Many of these issues apply to all other less-publicised land use contributors to catchment run off, including national parks. While no one contributor should be considered in isolation, this does not prevent each from developing its own responses.

The Assessment neither seeks to re-visit in detail the considerable and increasing body of information relating to these issues and the sugar industry, nor deconstruct the public iterations of various parties. Rather, there are a number of key observations to be made on the issue of most interest – concerns over the quality of riverine and estuarine water entering the Great Barrier Reef lagoon and the potential impact on the World Heritage and economic values of the marine park.

The Queensland sugar industry is the largest cropping activity carried out within the Great Barrier Reef catchments, with cane grown on the coastal plains and river valleys from Mossman, extending along 2100km of the eastern coastal fringe beyond the Great Barrier Reef zone and the Queensland border to Grafton in New South Wales. The industry does however have a fairly small “foot-print” in the majority of catchments where sugar is grown. As a significant natural resource user in a region of diverse economic activity, the sugar industry has interactions with a range of other natural resource users including tourism, fisheries (commercial and recreational), aquaculture, horticulture and grazing. Several of these industries rely on the continued health of the Reef system for long-term economic sustainability. The Great Barrier Reef underpins a significant, growing proportion of Queensland’s regional economy.

Sugar industry mill areas occupy different catchments, so maintaining water quality requires varying solutions. There are different environmental issues from catchment to catchment, all requiring different responses and with different knowledge needs.

8.2 What is the Industry’s Environmental Record?

In the recent past the sugar industry has responded to environmental matters (including but not limited to water quality) by investing in environmental R&D and by demonstrating a capacity to adapt to changing conditions and societal demands.

CRC for Sustainable Sugar Production (CRC Sugar)

Since 1995, Australia's five major sugar milling companies, CANEGROWERS, SRDC, BSES, James Cook University, Central Queensland University, the University of Queensland and CSIRO have collectively committed \$0.75m annually for research to improve the environmental management of the sugar industry. This has in turn leveraged a further \$1.5m annually for environmental research from other agencies, plus an additional \$1.1m annually from the Commonwealth. The resulting improved understanding of environmental matters has been delivered to the industry through an intensive ongoing program of “train-the-trainer” short courses, grower field days, and most recently, the COMPASS program (see below). CRC Sugar has played a vital role in such initiatives.

Environmental Management Strategy

An industry-commissioned 1995 independent environmental audit of the industry resulted in over 150 recommendations, and led to the development in 1996 by the farmers’ organisation CANEGROWERS, BSES and CRC Sugar of an Environmental Management Strategy. This has since undergone several updates and been the impetus for a range of notable achievements, which are outlined briefly below.

Tree planting

Between 1997 and 1999, over 1 million trees were planted on cane farms or in cane growing regions (the Environmental Management Strategy had acknowledged community pressure for the re-vegetation of riparian zones).

Code of Practice

In 1998 the Code of Practice for Sustainable Cane Growing in Queensland was developed. The Code includes recommendations on stream bank vegetation protection, the creation of artificial wetlands, erosion reduction (including the use of trash blankets), fertiliser application minimisation and irrigation water efficiency. It was endorsed by the Queensland Government and promoted by CANEGROWERS. However it became clear that a process was needed to stimulate farmer involvement and hence greater compliance with the Code of Practice.

COMPASS

Accordingly, in 1999 the SRDC funded a two-year project to "Raise Awareness and Adoption of Sustainable Cane Growing Practices". The project included a farmer survey, conducted by the BSES, which highlighted the need for a tool to help farmers assess their on-farm performance against the Code's recommendations and to focus extension efforts not only on environmental issues, but also on farm safety issues.

In late 2001 this tool was launched: a self-assessment system based on the *Farm*A*Syst* model (*Farm*A*Syst*, 2000) called the *COMPASS Self Assessment Workbook* (COMPASS stands for COMbining Profitability And Sustainability in Sugar). COMPASS received the support of Queensland CANEGROWERS, NSW Cane Growers Association, the Queensland Environmental Protection Agency, and Environment Australia. Although only a small percentage of farmers have been exposed to COMPASS, CANEGROWERS has committed to further dissemination, training and revision.

Estuary Flora

In 1999, *A Fish Habitat Code of Practice* was launched, for the maintenance of drainage areas on cane farms. As part of the associated accreditation requirements, more than 350 farmers attended training sessions in 2000. This Code was developed jointly by the industry and State Government, in response to the *Fisheries Act 1994* (Qld), which made it an offence to disturb a marine plant without a permit.

Green Cane Trash Blanketing (GCTB)

By 2000, more than 95 percent of the cane crop was harvested green in all areas of the state north of Mackay, with the exception of the Burdekin, where very high yielding crops and the use of flood irrigation make green cane harvesting and trash blanketing more difficult.

ChemCert

In 2002 the industry launched a sugarcane specific version of the *ChemCert Chemical Accreditation Course*, designed to provide cane farmers with a better understanding of how to use chemicals safely and responsibly in sensitive environments. In accordance with the Environment Management Strategy, 75 percent of cane farmers now have current agricultural chemical use accreditation, the highest percentage for any Australian rural industry.

Water Use Efficiency Program

Since 1999 the industry has participated heavily in the Queensland Rural Water Use Efficiency Initiative, with more than 2,000 irrigators (60% of all cane farmers who irrigate) participating in water use efficiency activities. The industry has also committed to improving water use efficiency by six per cent, with 70% of irrigators using Best Management Practices by 2003.

CANEGROWERS has also indicated that its new Environment Performance Program, to commence with the new 2002-2003 financial year, will seek to build upon these past achievements.

In addition to the above, the industry has invested in co-generation of "renewable energy" electricity. It has become a tour attraction in attractive areas and has formed strategic local alliances and shared aims with every sector of the community and government, notably in Mossman.

8.3 What Guidance Does Science Offer?

Addressing the Great Barrier Reef water quality issue requires establishment of the state of scientific knowledge. The “consensus statement” by highly accredited and independent scientists included at Appendix D summarises the current level of scientific understanding about the impacts of terrestrial run-off on the Great Barrier Reef World Heritage Area. It acknowledges the difficulty of directly linking land-based activity to what is happening offshore, and also notes that there are gaps in scientific knowledge.

However, the statement asserts that, notwithstanding these limitations, there is real risk to the Great Barrier Reef system under a “business as usual” scenario. This is indicated collectively by the available scientific evidence on the pressures from land based run-off, coupled with observations of degradation of some near-shore reefs and experience from degraded reef systems overseas. The consensus statement then argues that, consistent with the precautionary principle, actions need to be taken to reduce that risk. The statement does not single out particular industries in making these important points.

This Assessment has consulted a representative number of the scientists several times and was impressed with their even-handedness and professionalism. The Assessment concludes that the consensus statement should form the baseline for stakeholders to move beyond the scientific debate and work towards tangible outcomes through engagement of all parties involved. The pending report of the Science Panel to the Queensland Reef Protection Taskforce is expected to clarify this issue further, including recommendations to government, and provide updated information on the risk of impacts. The industry should prepare itself strategically to respond to recommendations from the Panel.

8.4 How to Move Forward?

The Assessment concluded that there are ways for the industry to build on its environmental achievements to date. As well as water quality, the process outlined below can also be established to deal with the other environmental issues outlined in Appendix D.

Catchment focus needed

Consistent with the regional focus necessary to deal with many other concerns facing the sugar industry, catchments are the basic planning unit for addressing the Great Barrier Reef issue. Many natural resource and environmental issues are linked by water, and what happens in one part of a catchment is likely to affect the well-being of areas downstream and beyond the catchment. A catchment approach is consistent with the “mill area” focus discussed in the context of other sugar industry issues, and in many cases mill areas and catchment areas occupy a similar space.

There needs to be greater importance placed on actions at the farm enterprise level to improve downstream water quality, rather than an exclusive emphasis on “end-of-river” water quality targets. Milestone rather than aspirational targets should engender greater participation at the farm level, and accordingly improvement of whole-farm management practices.

Milestone targets also need to be regionally or catchment specific; a “one size fits all” approach for the entire industry can be unnecessarily restrictive and fail to account for different local priorities, not to mention the relative impact and role of other industries. A negotiated outcome in target setting is desirable, with all stakeholders providing appropriate input. This has not tended to be the case in the past and is certainly not occurring at present.

Given that issues of water quality in rivers and the reef lagoon have attracted most attention, ongoing catchment area analysis and restoration processes are clearly needed. This should include the sugar industry, but also other rural industries, urban areas, infrastructure developers and road makers, national parks, World Heritage areas, and other stakeholders. Similarly, issues of R&D funding need to be considered beyond the confines of the sugar industry.

It is vital to establish adequate monitoring mechanisms, to determine, for example, whether runoff is coming from a particular source or industry. An effective network of monitoring, on a catchment by catchment basis, will facilitate a more helpful regional focus. There is a clear role for Commonwealth and particularly State agencies to establish a framework for monitoring networks, within which local authorities, who might not otherwise have the necessary capacity on their own, can operate. Existing or developing bilateral arrangements such as the National Action Plan (NAP) for Salinity and Water Quality, and the National Land and Water Resources Audit Mark II will need to be coordinated within this overarching framework, with local support and a long-term vision, supported by adequate resources to ensure delivery of benefits.

Who should coordinate catchment planning?

There are currently numerous integrated catchment management groups operating in sugar industry regions, some with water quality projects involving a range of land users, industry groups, local government and State Departments. Where these do not currently operate, local government is ideally situated regionally to coordinate the process and assemble inclusive catchment groups. This can be undertaken in conjunction with relevant state agencies to ensure the necessary integrated planning and environmental skills are employed. Regional bodies established under the National Heritage Trust (NHT) and NAP are also establishing technical advisory groups with local knowledge and expertise. Coordination between catchments is needed to avoid duplication of effort.

Voluntary programs

The industry has done some good work. Voluntary programs, such as the Code of Practice, should continue to be encouraged. These programs can be jointly developed by the industry and relevant stakeholders, with new releases or updates accompanied by extensive educational and training efforts, reinforcing key themes and promoting uptake towards best practice. The concept of 'best practice' under the Queensland *Environmental Protection Act 1994* refers to management that achieves ongoing minimisation of environmental harm through cost effective measures, and can be assessed against the measures currently used nationally and internationally.

It is possible that in particularly sensitive areas, where early uptake of the Code will be essential, the voluntary response might prove inadequate. In this case the New South Wales practice can be used, where mill acceptance of all cane is dependent on signed farmer agreement to adhere to the Code. For these sensitive areas, urgent assistance is needed to accelerate the education of farmers concerning the need for Code compliance and the consequences of non-adoption. Skills training of those delivering messages is also important. Whether aims are achieved via voluntary compliance or commitment by agreement, qualified catchment oversight capacity is needed regionally.

With the industry demonstrating implementation of the many tools for environmental management available to it, the use of these tools across farming districts would increase their effectiveness, help individuals with decision-making, and ensure positive publicity for the industry. There is also scope for investigation of certification systems for the sugar industry, with potential incentives for the adoption of best management practices.

Audit: what can't be measured, can't be managed

Notwithstanding the potential effectiveness of voluntary programs, what cannot be measured cannot be assumed to be happening. Once agreed, the sugar industry's chosen assessment systems need appraisal by an independent entity, for credibility and community accountability.

The long term financial benefits associated with environmental audits include improved efficiencies and effective risk management. In addition, compliance with environmental requirements helps industry avoid the risk of penalties that might arise from environmental breaches.

An opportunity exists to showcase "adaptive management" practices to the wider community. The industry already has several outstanding examples of voluntary farmer actions which far exceed compliance.

Who should manage the audit process?

The audit function is presently unspecified, being deferred by the Environment Protection Agency to Cane Production Boards (CPB) in Queensland. A CPB for each mill area is appointed by the Minister from Primary Industries. Functions include establishment of environmental guidelines for land use and transport. Most CPB's but not all have submitted guidelines. As statutory bodies CPB's have the ability to prosecute for breaches, yet have neither the funds nor the required expertise to make informed judgments. Neither do their guidelines provide jurisdiction over environmental practices on cane lands granted before the *Sugar Industry Act 1999*. This situation creates two classes of farmers for environmental purposes. CPB's comprise farmers and mill staff who are untrained and have full time occupations elsewhere.

For all these reasons CPB's seem unfairly placed in the matter of environmental supervision. Local government is again a logical body to coordinate the expertise required for all catchment area activities, not exclusively for the sugar industry.

Eco-efficiency

An environmental audit is a first step towards eco-efficiency. This concept is also used by some in the industry and is a means to assess the environmental impacts of industry operations by measurement and evaluation of all inputs (eg fertilizer and pesticide use, energy and water consumption) and outputs (eg product quality, waste material, emissions) from the production process. Identified and measured impacts can provide information to the mill area on where it should implement eco-efficiency improvements. State and Commonwealth governments have various programs with potential funding for eco-efficiency initiatives.

Environmental Management System

The Code of Practice and audit are steps along the road to an Environmental Management System (EMS). EMS offers farmers a systematic approach to managing impacts on the environment, whilst allowing for continuous environmental and productivity improvement. EMS also encourages the industry to undertake periodic reviews of environmental strategies, such as the Code of Practice, to ensure that they become "living" documents, incorporating best practice and other strategic natural resource directions. The development of a self-assessment program that is endorsed by stakeholders and based on the EMS model, specifically through revision of the COMPASS self-assessment booklet, would go a considerable way to overcoming many of the perceived inadequacies in the industry's current environmental behaviour.

Within the sugar industry, EMS can be applied across all stages of the supply chain from assignment process to product distribution. Links to cane acceptance might be required in order to identify non-participants. In the most sensitive areas, if development and use of EMS and Code of Practice do not produce the required outcomes, then remediation and restoration of the relevant lands becomes a consideration. Voluntary public presentation of information about the industry's environmental performance over a specified period is recommended.

"No man (or industry) is an island"

No one contributor to a catchment can survive alone for long. It was submitted on several occasions during the Assessment that, with some outstanding exceptions, there is a clear difference between the public environmental face of the cane farmers' peak industry body and that of other industries. It is recommended that the cane farming sector adopt an "engage not defend" approach and lead the way on the environment.

At the same time, it is acknowledged that the sugar industry has been subject to a disproportionate level of negative publicity and attacks. The better understanding of environmental issues that has emerged as the result of work undertaken by the sugar industry (including the research organisations) has raised its environmental profile relative to most other catchment users. Because other industries have not invested in environmental R&D to the same extent, the finger is sometimes pointed at sugar in ignorance of other possible sources or causes.

The community has responsibilities too

Community values do change. It is recommended that if these values change for public good purposes and the consequences fall unequally on a sector which has been operating to best practice, then that sector needs consideration by the public, including cost sharing arrangements. There are already numerous positive examples of this shared responsibility, including National Heritage Trust, Landcare, Integrated Catchment Management, the Commonwealth's CRC program, the NAP for Salinity and Water, and State government funding of R&D for agriculture, environmental protection and natural resource management.

Variation of pre-existing property rights associated with vegetation and water policy requires further on-going examination, to clarify the obligations of landholders in relation to natural resource management. Specifically, the transitional and future impacts for both the environment and the public resulting from policy measures need to be established, along with appropriate infrastructure measures. Governments are increasingly moving to constrain water rights as well as property rights. Whilst there might be sound natural resource management reasons for doing so, the practical and financial ramifications of such policies for those most directly affected are also an issue for the wider community.

In conjunction with developing further voluntary programs, it is recommended that the sugar industry engage State and Commonwealth environmental agencies and initiatives, including public environmental reporting, eco efficiency and co-funding agreements between industry and governments, and identification and promotion of demonstration farms and areas. It is understood that State and Commonwealth governments are currently developing further initiatives, with a view to engaging all relevant stakeholders in a partnership approach to what are variously termed "no regrets" or "win-win" type actions. Economic opportunities for within industry cross subsidisation and to take more account of environmental externalities have been documented and can also be explored.

8.5 The Future

The sugar industry needs to continue to demonstrate that it can and will adapt to current environmental challenges, against a social backdrop of increasing expectations placed upon its environmental performance. Farmers have long known that any degradation of the resource base represents a loss of productive capacity and is therefore an impediment to economic sustainability. For their part, governments need to work with industries regionally to provide guidance, develop suitable schedules, and establish priority of issues. There is a role for government assistance by way of incentives, shared funding and cost sharing, particularly in a climate that will see the environmental research effort diminish with the closure of CRC Sugar in June 2003.

It is noted that many of the views on environmental matters and sentiments expressed here are largely compatible with CANEGROWERS' own stated near-term environmental objectives.

It is feasible that, notwithstanding the successful implementation of any or all of the initiatives discussed here, a strategic re-allocation of some marginal cane lands away from cane might be required in the future. Should this occur, it will inevitably have serious consequences for the industry, and the ensuing process needs to be carefully and compassionately managed by governments. At the same time, any process for new assignments must be complicit with EMS principles and sound environmental impact guidelines.

9. DIVERSIFICATION

Diversification opportunities arise partly for environmental reasons from the “renewable” aspect of cane, being an agricultural product.

Many farmer submissions expressed disappointment that farmers had no financial interest in molasses, bagasse or by products, which could include ethanol, co-generated electricity, stock feed or chemicals. Of these four, only the submission on stock feed from bagasse provided financial projections.

9.1 Stock Feed

The stock feed submission indicated superior returns, dependent on market development and market share. Stock feed would pose an alternative to co-generation for that part of the bagasse required, and to a limited extent could create an extra demand for molasses.

9.2 Co-generation

On enquiry, capital expenditure provided by an outside generator for installation of co-generation at a mill for sale of surplus electricity seemed to have potential to lower mill risk by giving a secure cost of power and source of steam from upgraded boilers. The mill would have potential for sharing in upside power price to the extent it was prepared to share any downside price risk also. The economics of a co-generation installation by the mill alone were not studied but were understood to be positive. Installations are generating power at several Queensland sites. New South Wales is planning to bring the whole crop to mill to use as fuel, a first for Australia.

9.3 Ethanol

The topic of ethanol was considered, with the conclusion that the matter was not straightforward. There are existing ethanol-producing units based on molasses, but the potential scale of ethanol from molasses is small compared with the market for transport fuel. It is noted that cane is not the only source for ethanol. Cane starts with a basic process advantage in that the alternative of ethanol from grain has an extra, first, process step not required for cane. Cane might have a transport disadvantage if markets for ethanol are more distant.

The issues relating to ethanol include availability of a firm market and market price for the ethanol product, relief of fuel excise, and the ability of the sugar industry to supply ethanol to that market reliably each year, no matter what the crop size and no matter what the sugar price. While the Assessment has limited knowledge of the matter of the grain alternative for ethanol, for cane the practical market limitation would possibly not be pressure from grain but from availability of cane or grain, and distance of mill from ethanol market. It might be possible for a mill to acquire a source of grain for out-of-sugar-season ethanol production, but it is difficult for the Assessment to comment on any distance hurdle.

Diversion of part of the sugar stream in the factory is the next step beyond use of molasses for increased ethanol production potential. The product resulting is understood to be of higher cost as it then becomes an alternative to more valuable raw sugar, instead of an alternative to the by-product molasses. Unless a cane feeder area to the mill has scope for increasing yield reliably from existing cane lands (and possibly from new cane lands) for capacity expansion, diversion of the sugar stream would mean that QSL would need to accept a lesser proportion of raw sugar potential from Queensland’s cane crop as described earlier. Cane supply is likely to require agreement to a base cane price-and-quantity outcome for an efficient farm to cover cost of production plus suitable profit margin. Term supply-and-take cross guarantees would also be needed, so that farmers and mill can plan on a base activity.

The base cane price outcome would almost certainly need to be higher than present day market prices, but not so high as to make production of ethanol uneconomic. The farmer would need to acknowledge that a base term-contract has value for farm planning. Alternatively the farmer could possibly co-invest with the mill in ethanol capital works and share in the owner's proceeds, or share by any other means that mill and farmer can negotiate.

There are currently several government measures relating to ethanol, including an excise exemption and various Greenhouse Gas Abatement Program projects. Whilst these initiatives were recognised in some submissions, it was argued that the industry would require a more certain market before altering its production into using the sugar stream, and that this might require the introduction of a mandated blend of ethanol in petrol.

The Assessment notes that the Queensland Government recently formed an inter-departmental committee (IDC) to explore the opportunities for government support for a fuel ethanol based industry in Queensland. The IDC is to examine the technical feasibility and policy implications of a new fuel based industry for sugar, based on the recently announced E10 Project.

Ethanol is also the subject of a recently-announced major two year Commonwealth study "to address market barriers to the increased use of biofuels in transport". There is environmental advantage through the renewable aspect of cane, and also from ethanol replacing aromatics in oxygenation of petrol (octane rating). There is no technology risk and no research is required. Australian imports of liquid fuel are expected to increase with decreasing indigenous resources. It is quite likely that examples exist where the production of ethanol based on cane can be justified economically, together with its fuel security and regional jobs advantages - the Assessment commends the possibility of the recently announced Commonwealth study on the subject.

9.4 Biofactory

This topic is subject of a proposal for a Cooperative Research Centre (CRC). The Assessment has limited knowledge of this proposal but has been advised of enough to believe there is potentially a totally new alternative use for cane, for supplying high value niche markets with a variety of products. The Assessment has been advised that Australia is well placed in science and intellectual property in the particular aspects of the CRC bid. As this requires strategic research with its accompanying high risk, the Assessment suspects that the industry in its present state will need to be able to obtain sufficient funding from outside industry or failing that, sufficient public supplementary funding of some kind as a special case for a successful CRC bid.

9.5 The Benefits of Diversification

Under the present arrangements cane farmers are paid only a share of raw sugar proceeds for their cane, not a share of downstream products. The principle remains that only cane farmers in cooperative mills share in any diversification benefits (and risks) beyond sugar products, under the present formula. This does not prevent the formula from being changed by Mill Suppliers' Committees to suit a particular mill area, or prevent farmers from investing in the further products jointly with the mill. The Assessment believes proven mutual trust between mill and farmers is an essential precondition for such a sharing exercise.

10. SUGAR TERMINALS LIMITED (STL): A CORPORATE CASE STUDY

The company STL was incorporated in 1998 and started commercial operations in August 2000. It was established as a vehicle to transfer Queensland's bulk sugar terminals and long term leases to the sugar industry, and presents as a utility company. Depreciable assets and land were valued at \$356 million, and cash balance at June 2001 was \$38 million. The depreciable assets and land had a significantly higher replacement than book value.

The following is a comment critical of the fact of STL's establishment, not a comment on the necessary subsequent management, and a shareholding which cannot easily be undone. The Assessment believes the wisdom of splitting this company from QSL should have raised the strongest objections if farmer and miller stakeholders were alert to its financial consequences. The Assessment further believes that this case study demonstrates passive acceptance by stakeholders of yet more complexity and cost, too evidently a shortcoming of the industry.

STL share issue costs were \$4 million. STL created no new business. Apart from income from interest on cash held, it has one source of revenue only: QSL's use of the bulk terminals. STL revenue in this way becomes a QSL cost, and is deducted from the QSL pool before distribution of pool funds. Revenue to STL means a corresponding cost to QSL and QSL distributions.

At June 2001, STL had cash of \$38 million on deposit at lender's interest. Had STL not been formed, that cash would have been left in QSL and distributed pre-tax as pool proceeds.

Tax is paid on STL's pre tax profit after ordinary activities, after which STL declares franked dividends, and imputed tax credits are subsequently of benefit to those shareholders who pay tax. If the same pre tax profit were paid in pool proceeds without need for lease payments via STL, QSL would pay out this amount in full along with other pool proceeds.

If STL had not been created the assets now in STL would have been balance sheet backing for QSL. This would have kept the marketing and assets together as assurance that the premier bulk loading assets stay in "friendly" hands and available for raising its considerable seasonal borrowings, if one day QSL loses its government backing.

It is acknowledged that corporate shareholders of all descriptions can use the asset backing of STL shares, but the limited market in STL shares has caused the price of shares to sink to less than half their net tangible asset backing, and a smaller fraction of asset replacement value backing. For every buyer there is a seller at less value than asset backing. In share market terms, STL is ripe for takeover. The Assessment understands that it would not be allowable for STL to be controlled outside the industry, in which case market price will probably stay depressed.

STL and QSL must now negotiate at arm's length as independent parties, each with external advisers, on matters that without STL would be performed by internal QSL executive action.

If the shareholders of STL were the same as the beneficiaries of QSL pool distributions there would at least be no conflict involved. But they are not quite the same, and by trading of shares the mismatch is becoming greater.

This arrangement adds only cost and conflict that did not previously exist, and indicates to the Assessment that the industry as presently organised has scope for increased commercial awareness.

11. ASSISTANCE ROUTES

The Assessment was presented with a number of suggested options to fund assistance for the sugar industry, and a number of possible targets for such assistance. Whilst it is outside the Assessment's terms of reference to make recommendations on specific funding mechanisms, the following comments reflect proposals from some submissions.

11.1 Funding Options

Tariff

An oft-cited funding option was the re-instatement of a tariff on imported sugar. Given that Australia continues to be active in promotion of agricultural trade reform internationally, including reductions in tariffs, the government might be reluctant to reintroduce a tariff. (As recommended under the 1996 Sugar Industry Review, the tariff was reduced to zero from 1 July 1997, compared with Australia's Uruguay Round commitment to reduce it to \$70 per tonne by 2000.) A tariff would disproportionately assist the NSW industry, which services the domestic market exclusively.

Domestic consumption levy

Another option proposed was to place a levy on the consumption of sugar in Australia. Whilst this could be distributed as a cane price supplement for a period, the levy would need to be very substantial to assist producers, as less than 20 percent of Australia's raw sugar production is sold domestically. As a consequence, domestic raw sugar price would at least have to double to \$480-500 per tonne to raise the average price for all production by at least \$50 and achieve \$290-300 per tonne. \$300 is an average price often suggested. A \$500 domestic price level is likely to promote the importation of sugar or sugar-containing products, and effectively be a gift to overseas competitors.

Low interest loans

Low-interest government loans were also proposed, as an ultimately self-funding mechanism. Loans have been provided previously to the industry (and repaid). In the present circumstances loans might inappropriately serve to encourage further debt. It is recommended that loans only be provided in circumstances that will facilitate the type of change advocated in this report.

Import parity pricing

There have also been calls for the re-instatement of import parity pricing. World or import parity price refers to what is commonly known as notional import parity pricing, which means pricing based on import parity but excluding a tariff component. With nil tariff applying today, it is equivalent to export parity pricing, plus transport and other logistic costs of placing imported sugar on the domestic market. The 1996 Sugar Industry Review Working Party estimated that the differential between export parity and notional import parity prices was around \$5 to \$7 per tonne, or approximately 2 percent increase in cane price.

A return to import parity pricing arrangements would favour the Queensland industry and would attract criticism from refiners who would believe that they were being asked to fund farmers. It is possible that the added marginal cost would pass through to the consumer of domestically produced sugar or sugar-containing products, thus effectively becoming a consumption levy. Many cane farmers believe that while their returns were reduced when the tariff was lost and export parity pricing was introduced, food and drink manufacturers did not pass gains associated with the pricing reforms on to consumers.

It should also be noted that any form of increased level of domestic support for the sugar industry would need to be examined in terms of consistency with Australia's WTO obligations.

11.2 Funding Targets

Whatever the eventual funding mechanism/s, the specific targets for assistance are a key issue. Many views were also presented to the Assessment in this regard, with comments and recommendations on these following.

There have been urgent calls for immediate welfare-type assistance to be provided to the industry in the short term, to assist farmers through the current situation of low world sugar prices and widespread drought conditions. Such welfare assistance would presumably be along the lines of the Sugar Industry Assistance Package (income support, interest rate subsidies), although there have been additional calls for per-hectare funding for growers to establish a 2003 crop.

Many in the industry argue that such emergency assistance would provide "breathing space" to enable the industry to undertake the urgent restructuring that has been the subject of this Assessment. Certainly the provision of such assistance would inevitably be predicated on retaining the status quo, in terms of industry composition. If propping up the worst-affected cases simply means prolonging the inevitable for many, this would appear to be counter-productive to achieving genuine industry reform, not to mention providing false hope to individuals. However, the perilous economic situation facing many in the industry cannot be denied or overlooked.

The CANEGROWERS organisation has recommended that the current conditions for the Commonwealth's *Farm Help* scheme be re-examined with a view to providing wider access for cane farmers. Since the end of the Sugar Industry Assistance Package, cane farmers have been by far the largest single group joining *Farm Help*, which also has welfare provisions. A clear, consistent and unambiguous (re-) statement of the level of welfare support governments are prepared to provide would help alleviate some uncertainty in the industry.

Farm Help is a component of the broader *Agriculture Advancing Australia* (AAA) program, which, it is understood, will be extensively reviewed over the coming months by AFFA. This examination must include a detailed study of current exit programs and strategies, and their effectiveness. Throughout the Assessment, farmers indicated that in the current economic climate they have no realistic exit options. This has consequences for succession planning and promoting the next generation of farmers, both of which are also understood to be priorities of the Government. It should also be noted that, largely for "lifestyle" reasons discussed elsewhere, the level of uptake of programs is often determined as much by cultural beliefs as by economic necessity.

It is probable that there will be fewer people in the industry in the short-to-medium term, and a smooth transition is highly preferred. It is recommended that government focus on that transition immediately. Training, re-training and education options should be addressed in conjunction with a review of exit assistance, with an emphasis on generating employment in the regions rather than Brisbane (the Commonwealth's *Regional Solutions* program has these objectives). It also appears that, given the current state of the industry, additional personal counselling services are required immediately.

Given the Government's stated objective to work with the industry to enhance its long term sustainability and profitability, the priority target for any funding should be to pursue options for those who choose to remain in the industry and are prepared to commit to adopt structures and practices that improve the sustainability of their mill area. Incentives or encouragement funding can therefore be targeted at a number of areas, at relatively low cost:

- Project work to further improve environmental practices (through Landcare activities, riparian zone plantings);
- Secretarial assistance for the establishment of regional human capability (including Mill Suppliers' Committee, Cane Production Boards) aimed at transferring appropriate experience into the provincial areas;
- Providing facilitators to help the industry implement its "plan" for the future;
- Investigating options for a new overarching peak body;
- Developing the cooperative model outlined in this report, including legal costs, with a view to appointing a cooperatives expert to visit the sugar areas explaining the concept and providing local advice to farmers and local legal practitioners;
- Supporting initiatives and proposals outlined by the Future Directions Taskforce (including product development, harvest/transport integration, education to promote best practice agriculture, Mourilyan Pilot Mill pilot project);
- Supporting initiatives and proposals outlined by the FNQ Taskforce (including revision of the cane payment system, development of a cane quality index); and
- Supporting priority R&D initiatives associated with the above, particularly Best Management Practice. This would assist in maintaining part of the research resource base.

12. CONCLUSIONS

The two key questions asked from the beginning of the Assessment were:

- What is the market outlook? and
- Has the industry the potential to survive and flourish in such a scenario?

The market outlook is addressed elsewhere. The industry potential to survive is addressed below.

12.1 The Past and the Future

The Assessment concluded that the industry's best chance to survive and flourish is largely up to itself; on its willingness to change the way it organises itself in Queensland; on learning to cooperate and take up good ideas of which there are many; on its willingness to support the best, most energetic and most able talent to lead for the good of each mill area or region.

Much of the time of the Assessment was spent in meeting interested parties in each of Australia's sugar regions, and in personal follow up. This contact approach provided clear impressions of the way the industry views itself. Some impressions are offered below. If they seem unduly critical, nevertheless they are owed to those who are severely pressed and asked for plain speaking. The following factors are likely to have been the legacy of more than 100 years of development, with parties viewing legislation as a protective shield when the main game outside has changed greatly. Players in the industry are wonderful people but have often been in the industry for a long time, with this background now ingrained.

The industry perceives itself as important, but if the whole industry were listed on the Australian Stock Exchange, it would not be likely to rank in the top individual 50 companies by market capitalisation. That is not to deny its vast social and strategic importance to north-east coast Australia, including Queensland, but to place the need for financial improvement into perspective.

The industry in Queensland, mills and farmers, often seems to look inwards. The industry seems sometimes to be treated as a corporate toy for reshaping.

Industry representation is hierarchical and suspicious of those outside its own group. The wonderful people are why the industry is so cohesive, but the Australian Sugar Milling Council (ASMC), despite its efficient secretariat, is like an earlier edition peak employers' body. In that context CANEGROWERS is like an older style trade union: male and seniority based, arguing from the centre. ASMC membership is not homogeneous, consisting of independent corporations with independent ambitions. CANEGROWERS is homogeneous and has used its collective central electoral influence effectively, while the mill areas should be the main game for those living and working in them. CANEGROWERS branches are expected to take time to adjust to losing compulsory membership. The Assessment learned in travels that a minor but unattractive secondary boycott had been placed as an outcome of a disagreement with another farmer body (it still stood at time of writing).

In some places in Queensland, with very notable exceptions, the Assessment was met with unrealistic expectations in a search for hope. While the Assessment was made aware of the depth of genuine difficulty facing farmers, it was also apparent that some were prepared to accept simple but undeliverable solutions uncritically, with the danger of becoming prey to demagogic proposals.

Queensland needs to support many thousands of farming businesses, hundreds of harvesting businesses, dozens of milling businesses and one marketing business. Revenue turnover of the industry per farm over the last 10 years measured has been relatively static with increasing input costs, to support the same number of farms. Brazil is here to stay, competing strongly on the world market. Not everyone in the Australian industry will remain fully employed by it. An option for farmers is suggested, using formation of cooperative farms to allow residence and property title to remain with the present owners, but not necessarily to provide full time jobs. It is one alternative to sale of the farm, for people wishing to retire and who lack a family successor. It might not initially seem the perfect situation for fiercely independent and proud farmers, but cooperation is viewed by the Assessment as a better path to examine than risk the possibility of a wider failure through not considering cooperation as an option. The comments on cooperation apply equally to mills, with the heavy responsibility of local leadership to consider cooperatively-negotiated rationalisations.

The industry has a good record on environmental activism, understood to be better than most other rural industries. While the work through the CRC for Sustainable Sugar Production, CSIRO, State Department of Natural Resources and others has indicated areas for improvement, the industry's aggregated knowledge and its strategic coastal location are such that they have made the industry an easier target for critics. Nevertheless, the Assessment recommends that farm and mill sectors always adopt a policy of engaging all parties, as in the end there is no security without collaborative engagement.

12.2 One Industry Body?

Formation of one Queensland industry body is believed by the Assessment to be a very important matter for industry consideration. Such a body might need to cost no more than present joint representational bodies. New South Wales and the Ord, each comprising a single corporate body, have their own State considerations, but might wish to join forces for national issues such as ethanol policy.

It is up to industry to devise whether and how such a body might congregate as an aggregation of mill areas. The mill area, mill and its supplying farmer together is seen as the basic component for membership of such a body, to identify and advance the many interests all have in common: water policy, fertiliser use, environmental policies, transport, health and safety to name a few. Non-common interests would be dealt with as each mill area decides.

12.3 Research

The industry has a proud record of research, with dedicated farmer and miller research establishments. At present there is a very high risk that the industry will be unable to maintain its researcher base due to lack of funds, losing some to other industries or to other countries. The Assessment believes that there are some economies that can be made through rationalisation, and through clear industry leadership in establishing priorities. However without supplementary funding in the next 2-3 years, particularly for whole of value chain work at mill area level (possibly based at the mills), the ability of the industry to improve will be slowed when speed is needed.

[Readers are advised of the assessor's research interest as Chairperson of the Sugar Research and Development Corporation, but should note he leaves that post in three months.]

12.4 Industry's Proposals

As a condition of the Sugar Industry Assistance Package, the Commonwealth Government requested the sugar industry to present proposals for comprehensive industry-wide structural reform by June 2002. The Assessment was to use best endeavours to work with the industry as these proposals are developed, and did so. The peak farmer and miller organisations have recently developed a joint submission to the Minister for Agriculture, Fisheries and Forestry, the Hon. Warren Truss MP, and made it available to the Assessment for consideration. The proposals are generally endorsed by the Assessment while noting time has precluded analysis and comment.

12.5 The Assessment and Sugar Societies

The Bureau of Rural Sciences was commissioned to perform work on the dependence of sugar areas on the industry. Its first output is at Appendix G. There is abundant information available through submissions on the plight in many of these areas, but not many have recent statistics attached. The industry is suffering from a series of causes, and most areas have costs exceeding cane revenues, through a combination of very low world prices and poor seasons. The Assessment believes that the industry can do better, but only if each sector cooperates and engages all parties in good faith to a far greater extent than hitherto.

Information concerning the linkages of the sugar industry to other local industry, the identification of local communities at most risk, and an assessment of counselling and other support services required are seen by the Assessment as being urgently needed.

It is acknowledged that the Assessment could not address the detail of every major issue in the time available. However, it is better known by those managing the industry what is required technically. Major advances are needed in people being able to talk openly to all others and expecting the best. The Assessment believes that if one expects the best of others it often happens that way.

In visiting all areas and all industry officials the Assessment met nothing but cooperation and courtesy. It is clear that there is great affection for the industry, and there are many admirable, hard working and worthy people. Being critical after such a reception was difficult, but it would betray the expressed hope of many if the Assessment failed to suggest some scope for possible improvement in forthright terms.

The Assessment believes that whilst the general package of assistance delivered last year was welcomed by many, and that any attrition of the industry will need to be carefully managed by governments, the far more desirable form of assistance is that targeted at committed people and projects aiming to advance profitable outcomes.

RECOMMENDATIONS

The following recommendations reflect the general thrust of the Assessment. Further ideas and specific actions are indicated in the text of the report, to be developed by industry and, as appropriate, government.

1 INDUSTRY AND COMPETITION

Scenario:

At present the sugar industry is largely unprofitable and the business management skills are variable and often not well-developed. The notion of "industry leadership" is often focused on sectoral representation at state level while the profit centre is at regional level. The technical and production needs of the industry are generally known, as is the required technology. However a whole of value chain systems approach to all aspects of operations is lacking.

Action:

- The Queensland industry must establish a strong mill area or mill region focus of operations.
- For improved mill area economic outcomes, election to the Mill Suppliers' Committee specified in the (Queensland) Act should be completely free of any link whatsoever to the constitution of CANEGROWERS or ACFA, with no "unity" tickets permitted, and with voting to reflect economic interests of farmers.
- A Queensland industry body should be established to represent all mill regions (farm and mill) on extra-regional issues (eg water, transport, health and safety).
- Industry must develop local economic leadership for local negotiations, in preference to established sectoral state representational routes.
- With government support, the industry must build business management skills in the regions. An upgrading of business management training is urgently required.
- Industry should install a whole of value chain systems approach to all operations, particularly in relation to harvest and transport arrangements.
- Within mill areas, a rationalisation of the industry into larger units of farms or farm cooperatives is highly desirable. Government should be fully supportive of industry's efforts.
- Worldwide benchmarking of industry activities against the strongest competitors is required, followed by implementation of cost effective options.
- Millers need to work to ensure the early rationalisation of mill areas and feeder farms in Far North Queensland.

2. THE MARKET

Scenario:

The world sugar price is at a low level and is likely to remain so for the short to medium term. The Australian sugar industry is fully exposed to world price at home and abroad.

Action:

- Urgent continued efforts are required by government and industry to gain access to protected European, US and Japanese markets.

3. DIVERSIFICATION

Scenario:

There are diversified products available such as ethanol and surplus power co-generated at the mill. Investment in ethanol for transport fuel requires market access and supply undertakings, at a price sufficiently profitable to divert sugar potential. Ethanol from molasses has limited production potential.

Action:

- Product diversification of both cane and raw sugar must be further encouraged, in order to increase returns. Product diversification of both cane and raw sugar must be further analysed and opportunities to increase returns exploited.
- Industry should pursue the further potential for co-generation.
- The current Commonwealth Government biofuels study should include the development of a model of market access and pricing for ethanol.
- Industry and government should investigate the implications of domestic ethanol production for the exports of raw sugar.
- The industry should investigate possibilities of partnership arrangements with co-investors in diversified products.

4. ENVIRONMENT

Scenario:

The sugar industry has tended to isolate itself in the environmental debate, despite having been a leader in rural environmental work.

Action:

- The industry must adopt an “engage not defend” approach to all environmental matters and demonstrate leadership on a catchment-focused level.
- The industry should continue to develop and promote voluntary programs such as COMPASS (and beyond) and advance its environmental performance through independent audits.
- The industry should work to ensure sustainability through ongoing education.

5. SOCIAL

Scenario:

The local communities in sugar regions are under pressure as a result of successive poor seasons, low prices, higher debt levels, and succession difficulties. Many cane farmers are prepared to endure extreme economic deprivation to preserve the lifestyle of the family farm, but the lifestyle itself is declining severely.

Action:

- Options should be explored for allowing some industry participants to exit the industry with support, in the context of achieving more consolidated and viable industry arrangements.
- Further work is needed on the local impacts of industry change on industry participants and the broader community, especially the decreased labour requirements of larger farm units.
- Support must be provided to vulnerable communities in sugar regions, through an urgent review of existing assistance measures and the provision of training and re-training wherever necessary.

6. RESEARCH AND DEVELOPMENT

Scenario:

The research base is contracting through a sudden funding reduction. The main funding source of facilitation work in “systems-thinking” solutions and best management practices will cease this year, and the industry is also losing scientists. A CRC bid is under way for sugarcane as a biofactory.

Action:

- Government should investigate the continuation of supplementary funding for the development of “systems-thinking” solutions, particularly towards integrated harvest and transport arrangements, in order to consolidate strategic mill area viability.
- The industry should be encouraged to leverage its intellectual property base, through seeking suitable funding partners.
- Industry and government should work at least to maintain and where possible broaden the researcher base serving the industry.