

ASMC submission on Agricultural Competitiveness Issues Paper

The Australian Sugar Milling Council (ASMC) is the peak industry organisation for raw sugar milling in Australia. The ASMC represents some 95 per cent of Australian raw sugar production. There are 24 sugar mills in Australia, owned by eight companies. These mills produce raw sugar, which is either directly exported or refined in four Australian refineries. Around 80 per cent of raw sugar is exported while most refined sugar is sold domestically.

Issue 1 Food security in Australia and globally

Responsive sugar industry

The Australian sugar industry is well positioned to take advantage of growing global food demand. Sugar is a relatively cheap source of carbohydrate and Australia can profitably sell all sugar produced. Demand is expected to continue to grow globally at around 2 per cent per year, and in Asia at around 8 per cent per year. The Australian sugar industry prices all Australian raw sugar on the global market, achieving a premium and competitive advantage for sales into Asia based on quality and consistency and transport differential compared with South America.

The Australian sugar industry operates in a globally competitive market and is innovative in response to changing consumer needs and emerging opportunities. The development of Low GI sugar is a primary example of innovation in response to growing consumer demand for a particular product. Another niche market opportunity is dietary fibre from the sugarcane fibre (bagasse). The sugar milling industry is also continually looking to diversification opportunities from sugarcane, including cogeneration of electricity, biofuels and a range of other bio-products.

Government policies, programs and regulatory requirements have a direct impact on the sugar industry's profitability and sustainability. Policy uncertainty and conflicting policy direction limits the sugar milling industry's ability to respond to opportunities, including those presented by growing food demand.

Access to technology and information

Ensuring that regional Australia has timely access to technology is critical to raising agricultural productivity across all subsectors. An increasingly urbanised Australian population will inevitably mean fewer farmers working larger tracts of land, with an increasing focus on technology to drive productivity gains. Sugar milling companies are already engaged in the digital economy through use of technologies such as sensor technology and electronic data capture along the supply chain, GPS farming interactive web pages and business systems management; there are other emerging technologies which could provide additional efficiency and productivity improvements along the sugar supply chain.

The recent advances in farm technology are potentially transformative, and adoption within Australia encouraging. However, most technology, based on data exchange, continues to be in one direction, with the larger, coordinating party (typically processor) pushing information out, with little or no capacity to receive return traffic from the

smaller entity. Hence the real constraint to increasing agricultural productivity is likely to be the absence or tardiness in implementing a national digital economy rather than break through technologies. For example, breakthroughs in low cost, ploughable sensor technology, capable of capturing a range of soil data (nutrient, moisture, oxygen, etc) are likely to be constrained by access to an appropriate broadband network. However, in a highly efficient system, this data capture would be part of an increasingly sophisticated flow of information back and forth between a grower and agricultural processor, as each seeks to find the balance between incentive and optimised farming yield.

In addition to physical constraints related to broadband, there is a lack of awareness and skill in using what is or will be available. The digital economy and access to high speed broadband can be viewed as servicing 'Gen Y's' need to be socially connected. There needs to be a strong focus on education for the digital economy to highlight the range of uses and opportunities it presents and the potential benefits for improved productivity and business efficiency. There needs to be a greater awareness of the two-way flow of information, rather than just one direction, such as to find information through accessing the internet.

Exporting technology

Although in the past Australia has been an exporter of technology related to the sugar industry, it is no longer considered large enough to drive technology development on its own. Australia produces around 3.5 to 4.5 million tonnes of sugar per year and is relatively small when compared with the largest sugar producing countries including Brazil (around 39 million tonnes), India (around 29 million tonnes) and Thailand (10 million tonnes). However, to remain at the forefront of technology development related to sugar production, the Australian industry looks for niche opportunities and joint ventures for technology development and testing for its use in larger sugar producing markets. These projects ensure the Australian industry has access to the latest technology as it is developed.

Issue 2 Farmer decisions for improving farm gate returns

The issues paper correctly identifies a range of decisions that can be made by farmers that can impact their farm gate returns.

However, from a sugar industry perspective there would be very few that could be made in isolation from consideration of the industry value chain. The inter-relationship between farmers and sugarcane processors is critical; sugarcane quality begins to deteriorate as soon as it is harvested, and it is essential to get it to the mill as soon as possible. As such, sugarcane farms are typically located in close proximity to sugar mills, and the nature of supply contracts between farmers and mills provide equitable access to the mill's crushing capacity for the (on average) 200 farmers per mill.

Scale is important

The responsibility for, and cost of, transport of the sugarcane crop to mills for processing lies with the mill owner, as does the general organisation of the harvest. The lowest cost sugarcane from a miller's perspective is that which is closest to the factory; the profitability of sugar milling, however, while largely dependent on the price of sugar,

also relies heavily on the throughput of the factory. This means that mills need to source sugarcane from both an optimum distance from the mill and further away. There is a limit to the distance that mills can profitably source sugarcane for processing, and the furthest that sugarcane is transported to mills is generally 100 km, with an average distance of 20 km.

The stability of this cane supply from one year to the next is all important for growers on an individual basis, and similarly for mills on a cumulative basis. Sugarcane is a crop that is generally grown over a five year cycle with a plant crop and an average of four ratoons from the same root stock. Productivity is at its highest during the plant and first ratoon with a gradual reduction over the next three ratoons. Ideally, growers will have their farms organised such that about 20 per cent of their harvested area is plant cane, 20 per cent first ratoon and so on. If a grower chooses to let this ratoon process extend beyond the plant and four ratoons pattern, the return from their land is less than optimal. If this sub-optimal pattern was broad enough across a mill's cane supply area, then cane supply to the mill could become insufficient to maintain sustainability of the processing business. This can occur during periods of low sugar prices or high input costs such as fertiliser and water, where growers on an individual basis might choose to cut back on their farm costs by not re-establishing their plant crop, or reduce inputs generally and seek supplementary income from off the farm. Sugar mills have no such options in terms of sourcing sugarcane from further afield or processing alternative crops.

To this end, most mill owners offer a range of planting incentives for growers to plant crops on land that has been used for alternative crops, out of production, or in some cases simply not re-planted for long periods of time. These incentives can be on a cash per hectare basis to assist in defraying the upfront cost of establishing the new crop, or on a guaranteed profitable price for the sugarcane which would incentivise the grower to invest in re-planting a crop for a new five year cycle.

Input costs - the emerging threat

The rising costs of both irrigation water and the electricity required to pump and apply it to sugarcane crops is an emerging threat to sugar industry profitability. In the short term, either a halt to these increases or some significant breakthrough in terms of water use efficiency will need to materialise for this not to become a major threat to productivity and therefore competitiveness in the sugar industry. Water and electricity costs are discussed further in Issue 6.

In the longer term, certainty about availability of water builds confidence around investing in the next crop cycle and for sugarcane this is a five year investment. More water storage through new or expanded dams would be supported by the sugar industry. There is a history of industry investment being made to enable dam projects to proceed and in some instances this could be an avenue of opportunity for Governments in the future.

Biosecurity

Sugarcane is grown mainly in a monoculture system and farms are generally located around a sugar mill in a contiguous land area. As such a commitment to biosecurity must start at each individual's farm gate and extend through every other farm gate. Biosecurity

arrangements in the industry have historically been underpinned by State based legislation. With a new *Biosecurity Act 2014* recently passed through the Queensland Parliament, there is a need to move towards risk based industry codes of practice that are under development to maintain the strong focus on biosecurity in the sugar industry. The success of this approach will rely on each sugarcane farmer's acceptance of a general biosecurity obligation and the maintenance of awareness of biosecurity risks.

The industry has a history of major pest incursions (Fiji disease, orange rust, sugarcane smut) that have ravaged crops across multiple regions. Any breakdown in biosecurity arrangements will be a significant threat to the industry.

The industry commitment to biosecurity is evidenced by the continuing annual investment in a biosecurity research program that has both preventative and management elements. Commonwealth and State Government funding in the biosecurity research and development arena compliments this industry research investment. The level of this investment needs to be reviewed regularly to ensure it keeps pace with the cost of such a program.

Issue 3 Enhancing access to finance

Foreign investment

The Australian sugar industry went through a period of significant challenges from the late 1990s through to mid to late 2000s, with a globally depressed sugar price and climatic and disease pressures. During this period, the milling sector, like most of the industry, saw many years of underinvestment in milling assets and infrastructure based on a lack of available capital. A rationalisation of mills took place with some mills closing and remaining mills increasing their intake of sugarcane. Many cooperative mills were acquired by larger companies, thus reducing the number of milling companies in the industry. Australian mills are typically in the order of 100 years old and require annual capital investment to maintain production efficiency. In some instances this has improved in recent times with new foreign ownership injecting much needed capital into the industry. International connections also provide new ways to access services, an important consideration for an export industry. Ownership by foreign parent companies requires a high level of transparency to provide the Australian community with confidence in the benefits foreign ownership brings.

In addition to rationalisation, production efficiency has generally increased, enabling investment in infrastructure improvements. For example closely located mills were able to move bagasse (cane fibre by-product) between mills to enable investment in expanded co-generation capability at one of those mills.

Innovative finance models

The need for capital to buy land and equipment impedes the establishment of new farming businesses and high debt levels can impede the adoption of best management practice, new technology and sustainable land management. In the sugar industry, an emerging trend is the leasing of land for growing sugarcane. To remain viable, sugar mills require a minimum amount of land under sugarcane in proximity to the mill. In some instances, failed MIS forestry land has been returned to sugarcane production through

mills purchasing the land and leasing it to cane farmers. This model has allowed new farmers to enter cane farming businesses without large capital costs. In 2011 Wilmar Sugar purchased a thousand hectares of land in the Herbert region that had been used for forestry that was decimated by Tropical Cyclone Yasi. It took several months to remove stumps and prepare the land for cane planting. It purchased more land in 2012 and provided planting incentives and leasing arrangements to encourage new and existing cane growers to increase production. The uptake of the arrangements has been strong and further land has been leased to farmers in 2013.

Mills offer a range of incentives to support farmers' efforts for profitable farming and in doing so, help maintain industry scale, which is so critical to the industry's sustainability. The incentives take a range of different forms, reflecting the needs of a farming region and individual milling company approaches. The milling companies seek three principal responses through their incentives:

1. To encourage new farmers into sugarcane farming
2. To encourage existing farmers to expand the proportion of sugarcane within their cropping regime; and
3. To increase the yield of the land under sugarcane.

Establishing sugarcane on new land or on land that has not grown sugarcane for a few years can be very expensive for farmers. Cash incentives and low interest loans have been offered to farmers to encourage farmers to grow more cane. Other incentives include low interest loans for investing in new irrigation systems to improve productivity and fixed pricing over several years to cover the full crop cycle (of planting followed by four years of ratoons) that enables optimal paddock productivity.

Issue 4 Increasing the competitiveness of the agriculture sector and its value chains

Laws and regulations to address market power imbalances

The current trend in federal and state government is to reduce regulations. Agricultural industries have been deregulating marketing arrangements and other business restrictions for decades; the Australian sugar industry maintains its global competitiveness despite operating in a globally distorted market for sugar. Australia has a strong regulatory framework to maintain appropriate oversight to ensure transparency and equity; it is essential this does not become too constricting and reduce operational efficiency. This framework includes the Australian Competition and Consumer Commission (ACCC) and *Competition and Consumer Act 2010*, and Foreign Investment Review Board, among other consumer and business protection measures. It would be a retrograde step for Governments to move in the opposite direction to freeing up the regulatory framework.

The nature and scale of sugar milling outlined in Issue 2, means that mills have very little option other than to buy from local growers. In turn, growers are largely reliant on local mills to process their sugarcane, and have access to collective bargaining opportunities. Growers and mills need to work together to enable the best financial outcomes for the growers and mills. Supply contracts between farmers and mills support equitable access to the mill for crushing over the season and enable fair payment arrangements.

Regulations to enable growth in agriculture

Government programs and policies can be used to stimulate growth in industries such as sugar, through optimising opportunities such as diversification with bioenergy. The significant growth in the sugar industry in Brazil was driven largely by the government-backed programs and policies, in particular around bioethanol and the drive for energy security. Likewise, the sugar industry in Thailand has significant government-backed biofuel programs and other sugarcane planting incentives and renewable energy targets.

The Renewable Energy Target has been an important policy in expanding the co-generation of electricity from Australian sugar mills. It is discussed further in Issue 9.

Issue 5 Enhancing agriculture's contribution to regional communities

Impact of growth of population in regional centres

Australians are increasingly living in urban areas, and the expansion of coastal centres in Queensland is often occurring at the expense of sugarcane production areas. Currently, 90 per cent of Australians live in urban areas and by 2050 this figure is expected to rise to 96 per cent (ABS, 2011¹; Salt 2012). In Queensland, there has been a migration from inland areas to coastal centres and Townsville, Mackay, Bundaberg, Hervey Bay and Cairns regions have all experienced extreme population growth (greater than 2 per cent per annum) over the last 20 years (Salt, 2013²). These important sugar producing areas are expected to continue to grow with the Queensland Government committing to regional growth under the Queensland Plan.

This population trend creates significant conflict for sugar industry supply chains. The sugar industry has an over-representation of aging population on its family farms. In the absence of good succession planning and practice, farming assets are increasingly stranded; the aging farmer is reluctant to sell the property that may have been in their family for generations, and in particular their connection with the family home, but has no incentive to invest in productivity measures that are future looking, when each year may be the last they operate their farm. Over a period of time, the farm loses comparative productivity. The local township continues to expand in parallel to the farm, and eventually the farmer is offered an unrefusable price for their land - which is subsequently converted into urban living. The extraordinary price creates a speculative expectation among the remaining aging farmers - reducing the incentive to sell back to the industry, as agriculture cannot compete with the one-off sale price of converting to real estate.

The flow on impact for agricultural manufacturers and milling companies is significant. Mills are central to their regional sugar supply chain. As the township has typically evolved around the central mill, much of the town's infrastructure has been funded or contributed to by the sugar industry over time, including water storage and distribution resources, rail network, bridges, roads and port facilities. Urbanisation within the sugar mill's catchment leads to a range of conflicts. The loss of land under cane directly affects the mill's viability - without throughput, the mill's operation is marginal (as discussed in Issue 2). However, the mill also loses access to transport corridors, and is not

¹ <http://www.abs.gov.au/websitedbs/censushome.nsf/home/data?opendocument#from-banner=LN>

² <http://www.theaustralian.com.au/business/opinion/continental-drift-as-the-nation-coasts-to-a-new-lifestyle/story-e6frg9jx-1226741235993>

compensated for the water infrastructure it has paid for, that is subsequently utilised by the new urban development. The loss of high quality agricultural land forces the mill to develop less viable land, and transport cane from further away. The mill, centrally located in the township (now city) built around it, is exposed to increasingly prescriptive legislation affecting its license to operate in a more densely populated region.

The fundamental issue here is that at this point in time, high quality agricultural land is traded against real estate value. While a house can be built on low quality land, Australia's high quality agricultural land resources are limited, and once lost, are lost forever. However, a range of secondary community issues also exists. Rapid population growth is changing the look and feel of regional communities, often with little input from the community. Most sugar regions recognise the need for, and welcome, population growth, but are adamant that their communities should not become extensions or echoes of capital cities. Most have reflected that the gap between population expansion and investment in necessary services (education, health, electricity reliability, etc) seems to have grown as the population has increased. The inferior health outcomes for regional Queenslanders and lower levels of attainment for education, compared with their SEQ counterparts, support this view.

Communities adapting to new pressures and opportunities

Social capital is very important for communities adapting positively to change, and the sugar mills have a range of activities and programs which build social capital. Many regional centres grew around the sugar mill which provided stable employment and training and these centres remain closely linked to the mills, with flow-on economic and social benefits such as supporting industries and small businesses, schools, health services and financial services. Sugar milling companies engage in a range of activities supporting groups within their communities including schools, indigenous, heritage, sporting and environmental groups. These activities are aimed at further building networks, trusts and connectivity within their communities.

Rapid population growth and competition between industries (such as agriculture and mining) can negatively impact community resilience, resulting in losing shared values and falling levels of trust. Competition between industries for resources, including land, water and skills, is one of the strongest forms of divide within many regional communities in Australia today, including sugar regions. Points of social connection, such as schools or industry supported community activities are critical for building social bridges (inclusion), and therefore social capital within communities. These opportunities for enhancing social capital need to be considered in government decisions around supporting infrastructure (including schools, transport and health), planning and industry support.

There have been isolated concerns that commercial farming by large corporations could destroy the fabric of farming communities, but modern corporations tend to engage in activities to build social capital. New financial structures can also offer other benefits. In particular, investment dollars that were tied up in farm capital are freed up to enable better investment in new technology, new market opportunities, improved practices and an exploration of opportunities. The changing structure can also provide an avenue for attracting new people, including younger people, to the industry, particularly if they can farm without the large debt burden of buying land for farming.

Agriculture contributing to jobs growth

Agriculture can contribute to jobs growth by considering ways to attract people to the industry and making it as appealing as some of the other competing sectors. Questions to be considered include ‘where are they going now’ and ‘what are they doing if they are not farmers?’ Primarily the factors that become a barrier to entry for the industry relate to the perceived “Lifestyle” restrictions. Agriculture is often seen as a career that an individual is born into and work in until retirement or an option that is only for people who do not want to live in the city. Job growth can be enhanced when agriculture is considered a career not just a lifestyle. There are a range of different approaches that a career in agriculture could include, such as fly-in fly-out (FIFO) or drive-in drive-out (DIDO). An engagement strategy to entice workers to enter into agricultural industries would be a useful and timely consideration. Advancement opportunities and development will all form part of the growth strategy.

Attracting the next generation of farmers

For the sugar industry, the best way to entice young workers or apprentices to the mills may be about changing how the roles within the mill are viewed to appeal to a changing demographic. Apprenticeships do not appeal to younger generations because of the perception that the first few years will be hard, there is no opportunity to advance beyond a scheduled timeframe and there is no fast track to completion. The structure of apprenticeships is based on the baby boomer employment model; apprentices come in early, individuals work their way up and reach a level of creditability before moving into a supervisory role. There is job security and a long career. This is not how a Gen Y perceives the world and potentially even less so with Gen Z. Young people entering the workforce today want all of the information now. They want to be placed on their potential, not on the history of how other people have paved their way.

Issue 6 Improving the competitiveness of inputs to the supply chain

The Australian sugar industry remains competitive in the global sugar market primarily through its highly efficient logistics system, including transport and storage. The sugar industry has invested in infrastructure including processing, storage and transport over a long period of time to build an efficient and cost effective system.

The industry understands the long pay back periods associated with such investments. For example, most Queensland sugar mills own and maintain a dedicated cane railway network to bring freshly cut cane to the mills for processing. These mills transport up to 30 million tonnes of cane during the crushing season (June to December), keeping the equivalent of 15 thousand truck movements per day off coastal roads.

In 2013, 87 per cent of sugarcane was transported to mills by cane railway and a further 5 per cent was transported by a combination of road and cane railway. The cane railways are considered the most efficient method for moving sugarcane to mills, but it would be cost-prohibitive to build them now, and access to second-hand rail is vital to keeping them maintained.

Transport efficiency

There has been a gradual decline in the efficiency of the transport and storage system over time due to a range of issues and bottlenecks that have emerged. Below are examples from along the transport supply chain:

- In some locations, changing land use (particularly urban growth) has resulted in the cane railway network requiring route or other changes to regain efficiency or improve public safety. In some instances there are opportunities to make improvements when other road or infrastructure works are being undertaken and good communication between government and industry are vital to ensure these opportunities are acted on as they emerge.
- Although rail is considered the most efficient way of moving raw sugar from mills to port for export, as rail freight service charges have increased, mills have progressively changed to road transport. This has resulted in a range of inefficiencies related to road infrastructure not being suitable for road trains and other High Mass Limit (HML) vehicles. There are some mill-owned railways for transporting sugar to port, but the infrastructure is reaching the end of its economic life. Industry has indicated its willingness to work with the Queensland Government to co-invest in the improvements that are needed to that privately-owned network to keep this freight on rail and off roads and ensure continued efficiency of this freight task.
- There are six bulk sugar terminals in Queensland for storage of raw sugar prior to export. Approximately 2.4 million tonnes of raw sugar (just over half of the average annual production) can be stored at these port terminals enabling the sale of raw sugar to be matched to market requirements. The industry has invested heavily over decades to achieve world class loading rates at these ports. There has been a noticeable erosion of this advantage by inefficient delivery of port services in recent times. The time to berth and sail a ship to and from a wharf is increasing rapidly, due to a range of issues, including a change from 24 hour berthing to day-time only berthing and changes to tug services which have resulted in longer waits for ships.

A holistic approach is required to maintaining and enhancing the efficiency of transport supply chains. This includes consultation with industry and coordination across government departments. The sugar industry considers collaboration and public-private investment an important component of achieving the desired industry and community outcomes regarding agricultural freight and storage systems. The long payback periods of these investments means that effective land planning and policy certainty are required to enable industry to invest with confidence.

Competition for land

Competition for land from urbanisation, industrial uses, mining and forestry reduces the sugar industry's competitiveness and put at risk the value of infrastructure investment (as discussed in issue 2 and 5). ASMC supports policies to protect agricultural land from long term alienation to other uses. When considering protection of good quality agricultural land, the existence of physical infrastructure (such as for irrigation, processing and transport) and social infrastructure (communities, skills and supporting services), must also be taken account of, along with the biophysical potential of the land. Including infrastructure in these considerations protects the existing investment by industry and

communities, and provides security for industry considering further investments with long pay back periods.

Energy costs and local solutions from sugarcane

Energy costs affect both growing and milling, but sugar mills offer local solutions to energy security through electricity generation from bagasse and potential biofuel production. The cost of electricity affects mills directly, being a seasonal importer and exporter of electricity, and indirectly through changes in productivity and the amount of sugarcane being crushed.

Increases in electricity costs cannot be passed through to customers, because sugar is a globally traded commodity. Almost 100 per cent of Australian sugar is priced on the global market. Electricity price increases of between 100 and 300 per cent over the last 3-4 years have had a significant impact on income for sugar mills and sugarcane growers, already operating at very narrow margins. These increases are likely to constrain further investment in major projects, including renewable energy projects by sugar mills and modern, water efficient irrigation infrastructure by growers.

In recent years, mills have invested in increased co-generation capacity and consequently generate electricity beyond the crushing season. Increasingly, a number are shouldering adjacent community electricity demand through the peak season, generating up to 50 weeks a year. This means these mills have increased their imported electricity load, as like any baseload generator, the generation set will require regular shutdown and maintenance, and subsequently import auxiliary load during generation start up. While large scale generators are subsidized for their auxiliary load, sugar mills are not, despite fulfilling the same function. This variable, auxiliary load is consequently at the centre of imported electricity price escalation for milling operations. However the existence of these embedded energy generators in the regions delays the need for investment in additional transmission infrastructure, directly reducing the cost of delivering electricity to the adjacent township demand, and government community service obligation payments. Whenever a mill significantly expands its cogeneration capacity, the distribution loss factor in the local area decreases, a level of public good that is not factored in to pricing of import electricity to a sugar mill. For example, the Queensland Competition Authority has stated that 46 per cent of the cost of a typical residential electricity bill is from network costs. In effect, mills are dampening network distribution costs increases, but attracting a further increase in their own costs.

Furthermore, irrigation in the sugar industry is one of the first inputs sacrificed by farmers facing financial pressure. The increase in electricity costs and the lack of differentiation between peak and off-peak tariffs is undermining a range of beneficial farming practices related to energy and water efficiency, and increasingly resulting in farmers failing to irrigate at all. Water for irrigation is an essential component of a globally competitive sugarcane production system, and lower production is not only bad for the grower, but has a multiplied impact for the local mill.

Electricity tariffs need to reflect the desired outcomes, rather than simply be based on delivery costs. They need to enable businesses along the supply chain to confidently invest in infrastructure and technology which will improve agricultural production and efficiency

in the long term. Distributed electricity such as from sugar mills, and possibly the use of alternative electricity sources for irrigation, such as through solar panels or wind pumps, could help reduce these input costs. Similarly, water use efficiency measures are critical to managing a limited water supply and at the same time minimising input costs associated with irrigation.

Biofuels can provide increased security for fuel supply and their use provides diversification options for agricultural industries such as sugarcane. Ethanol is currently produced from molasses at the distillery co-located with the Sarina sugar mill. Further development of biofuels is discussed in Issue 9.

Skills and training

Future skills and training will most likely need to be different to what is offered today due to a range of factors including changing technology and the social and learning expectations of the current and future generations. Connecting with schools is usually handled on a mill by mill basis, where a range of training opportunities are offered based on the needs of the particular mill. Planning for future skills requirements is about having a clear picture of what those skills will be. Business modelling, innovation and technology are all skills and training that would need to be considered depending on the model of the industry. In terms of growing sugarcane, advances in crop development, technology and community expectation in relation to minimising impacts on the environment mean that growing sugarcane is becoming more technical; reliance on hands-on experience might no longer be adequate for long term business viability.

Perception about what an industry represents and its role in society affects people's decision to take a job in that industry. Attracting young people to take up training opportunities and careers in agricultural industries therefore requires that the industry can promote itself in a range of ways. For example sugar mills can promote their role as renewable energy generators to attract young people desiring to work in a green industry. Agricultural industries more generally may need to assess what appeals to young people and promote those aspects of the industry more, or create those opportunities if they don't exist. For example young people have a greater desire for career mobility than existed in previous generations, so a business structure that enables greater mobility may be more attractive to young people starting out.

Research and Development

Research and Development has a critical role to play in addressing issues related to industry growth, profitability of farms and mills, and environmental and regulatory pressures. One of the sugar industry priorities is for investment in research addressing productivity decline and contributing to build production to 36 million tonnes of sugarcane per annum. Research needs to meet the needs of industry. Determining research priorities needs to incorporate more sophisticated, quantitative methods, including a cost-benefit analysis for investment.

The Australian sugar industry has recently launched Sugar Research Australia (SRA), a modern, industry-owned research and development company. The annual investment from mills and growers in research, development and extension (RD&E) through SRA is \$21 million, with the Federal Government contributing around \$5.5 million in matching

funds, and the Queensland government some \$4 million per year. Real investment by the Australian Government in agricultural RD&E has declined over the past decades. The Australian Government needs to increase matching investment from 0.5 per cent to 1.5 per cent of gross value of production for rural research and development corporations. This will be particularly important to meet the growing global demand for food and fibre and to capitalise on opportunities for diversification and innovative business growth for agribusiness and agri-based manufacturing.

Issue 7 Reducing ineffective regulations

Regulations are just one option in policy development and should be limited to where it is needed and not simply the first option, as outlined in the Australian Government Guide to Regulation³. Policy development needs to look for the options that offer the greatest net benefit in the long term for industry, the broader community and environment. There needs to be widespread and genuine consultation in the development of policies and regulation to ensure the desired outcomes are realised and to avoid unforeseen perverse outcomes.

There also needs to be coordination across government departments and between jurisdictions to ensure policies are consistent. For example, the current review of the RET needs to recognise the multiple opportunities offered by renewable energy in the development of northern Australia. The RET is an important policy in supporting diversification opportunities in the sugar industry, and the resultant embedded energy provides greater energy security in the regional centres around the mills. Sugar mills can also provide an important, cost effective source of electricity and biofuels for new industry development in northern Australia, if there is policy support. Likewise locally produced ethanol needs to be considered for extending and supplementing Australia's oil strategic reserve stock to meet International Energy Agency treaty obligations. This will be particularly important with the announcement by BP to close its refinery in Brisbane⁴.

Encouraging an industry approach to managing issues of concern for agriculture are likely to provide greater penetration and adoption than regulations with irregular 'drop in' penetration by an outsider to monitor compliance. Industry approaches, such as best management practices, engage businesses along the supply chain, and encourage operators to understand the risks to industry of various practices and the level of appropriate action to manage those risks. Regulations by their very nature look at worse case scenarios and do not take into consideration individual risk appetite and/or exposure factors.

Issue 8 Enhancing agricultural exports

The Australian sugar industry is the most trade-exposed sugar industry in the world - the domestic market for sugar is small in comparison to the size of the crop, and there are no subsidies or tariff protections. Free and fair trade is critical to the success of the Australian sugar industry. The industry welcomed the finalisation of the free trade agreement between Australia and Korea and strongly supports the government's

³ Office of Best Practice Regulation <http://www.dpmc.gov.au/deregulation/obpr/>

⁴ <http://www.abc.net.au/news/2014-04-02/bp-to-close-bulwer-island-refinery-brisbane-jobs-axed/5361296>

negotiations in pursuing an outcome that will establish rules enabling sugar to move freely between Trans Pacific Partnership member countries, and the reduction or elimination of tariffs and trade barriers. There are a range of other trade agreements, in addition to the multi-lateral efforts through the World Trade Organisation process, strongly supported by the Australian sugar industry, including the Japan and China Free Trade Agreements (FTA's). Commercially relevant outcomes for sugar are essential in every trade agreement, as evidenced with the ongoing challenges from the USA-Australia FTA, the only trade agreement either country has ever signed that excludes sugar.

In overcoming price distortions, agricultural industries need to be proactive, such as working closely with others facing the same challenges to increase bargaining power. Australia takes a key leadership role in the Global Alliance for Sugar Trade Reform and Liberalisation, which was established in 1999 to push for reform of the world sugar market. These efforts are aimed at ensuring that sugar is included as an important element of the agriculture trade agenda. Australia currently holds both the Chair and Secretariat positions and the group is active in pursuing multilateral trade outcomes which will improve sugar export returns for Australian sugar producers.

With the change to biosecurity legislation and the push to reduce red tape, there is a need to move away from a heavy regulated biosecurity arrangement to a risk based model. Coordination across the industry supply chain will enable the best outcomes. The changes to the biosecurity model will have no value without an opportunity to deliver the changes as part of an integrated and resourced approach. The industry approach, such as through BMP, requires engagement of industry operators and should also be included in training and development of new employees in the industry.

Issue 9 Assessing the effectiveness of incentives for investment and job creation

Incentives for growth.

The Renewable Energy Target has been an important policy in expanding the co-generation of electricity from Australian sugar mills and providing diversification opportunities. Sugar mills have been generating renewable electricity from waste sugarcane fibre for approximately 100 years in Australia, meeting their own electricity needs and exporting excess electricity to local networks. This capacity has expanded since the Mandatory Renewable Energy Target (MRET) was introduced in 2001, so that all sugar mills can export surplus electricity into regional distribution networks during the crushing season (June to November). There are some cogeneration projects that now generate for 50 weeks of the year, and are virtually base-load generators in terms of reliability. Mills continue to explore investment opportunities to expand and extend generation capacity. However, it requires significant capital investment and policy certainty is necessary to enable mills to invest with a defined payback period.

Biofuels are another important diversification opportunity for sugarcane, but further development requires policy support (and certainty) for ethanol production and equitable market access. Australia is currently lagging many other nations on biofuel development and use, despite moving from being a net exporter of oil to being a net importer. Ethanol is not a drop-in fuel and relies on mainstream fuel distributors to blend it with petroleum

based fuels, creating market access problems. The use of ethanol provides a critical stepping stone to the development of other bio-products in the future.

Visa arrangements

Seasonal workers are employed in sugar milling each year during the crushing season. It is beneficial for mills and workers to have the same workers return each year. It would be beneficial to have greater flexibility in visa arrangements to enable workers to return each year for a greater number of years than is currently available. The need for workers with visas is likely to be lower in the sugar industry than for other industries due to the ability of the sugar industry to attract local and/or Australian-based personnel. Other incentives such as FIFO, tax incentives or relocation assistance could encourage a greater participation in a permanent sugar milling workforce.