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WWF BRIEFING

REEF SAFE SUGAR

Securing the future of the cane industry in Queensland

Sugarcane farming has long been important to Queensland. Not only does the cane industry support about 16,000 jobs and generate about $2 billion for the economy [1], it is the lifeblood of many regional towns.

However, the Queensland sugar industry currently faces big challenges. Declining yields mean new ways need to be found to boost productivity. The Australian industry competes with other sugarcane-producing countries that enjoy lower input costs. The Queensland sugar industry is under the international spotlight as most cane farms are adjacent to one of the world's most renowned environmental destinations – the Great Barrier Reef. Not only is the Reef an ecological wonder, it is also a major economic asset, generating over $6 billion per year in tourism revenues and supporting around 70,000 jobs [2]. Meanwhile, global markets are increasingly calling for products that can demonstrate their good environmental and social credentials.

The Australian industry needs to adopt efficient farming systems that minimise costs and that operate in a sustainable and environmentally acceptable manner.

The Great Barrier Reef Outlook Report 2014 [3] found that nitrogen in farm run-off due to excessive fertiliser applications is one of the key risks to the Reef. Nitrogen run-off affects the Reef in different ways, including:

- Excess nutrients fuel crown of thorns starfish outbreaks, which are thought to be responsible for over 40% of the loss of half the Reef's coral cover between 1985 and 2012 [4].
- Excess nutrients also feed algae, which can outcompete and smother coral.
- High nutrient levels can stress coral and lead them to bleach at lower temperatures.

[1] Australian Sugar Milling Council http://asmc.com.au/industry-overview/statistics/
[2] Great Barrier Reef Outlook Report 2014 http://www.gbrmpa.gov.au/managing-the-reef/great-barrier-reef-outlook-report
[3] Great Barrier Reef Outlook Report 2014 http://www.gbrmpa.gov.au/managing-the-reef/great-barrier-reef-outlook-report
[4] De'ath et al, The 27-year decline of coral cover on the Great Barrier Reef and its causes. Proceedings of the National Academy of Sciences, 2012

One immediate action to rebuild the health and resilience of the Great Barrier Reef is to cut fertiliser in run-off. Both levels of government have committed, through the *Reef 2050 Long-Term Sustainability Plan* [5], to reduction of nitrogen pollution of up to 80% by 2025. The good news is that precision application of fertiliser and other inputs reduces costs while cutting pollution. Over the last decade, many cane farmers have implemented more profitable pollution cutting practices. However, the Great Barrier Reef Water Science Taskforce [6] found that:

- Despite some levels of practice change, adoption of the highest priority practices, such as those related to nitrogen application rates, has been slow.
- Transformational change is needed over the next 5-10 years if the targets have any chance of being achieved.

The Taskforce also set out several recommendations to deliver this change, including:

- Catchment specific limits on pollution loads, to drive action to meet water quality targets.
- Greater investment in agricultural extension and education.
- More use of financial incentives and market-based approaches.
- Staged regulation to reduce water pollution.

Both the current Queensland Government and the Opposition endorsed these recommendations. However, there are some critical actions that must be swiftly implemented if it is to fulfil the Taskforce's recommendations and make a rapid transition to 'Reef Safe' practices.

Maximise the efficiency and profitability of nitrogen use

- The industry's *Smartcane Best Management Practice* and government regulations currently rely on *Six Easy Steps* [7]. This includes guidance that farmers should apply fertiliser 20% above the rate that delivered the highest mill area average yield between 1999-2012. However, this yield is often much higher than what most cane blocks and mill areas achieve in a normal year, with the result that too much fertiliser is applied and excess fertiliser runs off into the Great Barrier Reef. Some growers are applying fertiliser at even higher rates, increasing both their costs and pollution.
- To reduce costs and pollution, fertiliser applications should be better matched to the yield potential of a farm or block or sub-block land area - the focus being to maximise nitrogen use efficiency and reduce nitrogen surplus – not to focus on what other blocks in the district produced in their best ever year.
- The Reef Taskforce recommended that regulatory standards move to block yield rather than district yield potential – WWF believes this should also be adopted by *Six Easy Steps* and the *Smartcane Best Management Practice* as the recommended industry standard for fertiliser use.

Improved farm management systems

- *Smartcane Best Management Practice* and Bonsucro are two voluntary programs which assist farmers to benchmark and improve their practices, and to deliver both productivity and environmental benefits.

[5] Reef 2050 Plan https://www.environment.gov.au/marine/gbr/long-term-sustainability-plan
[6] Great Barrier Reef Water Science Taskforce http://www.gbr.qld.gov.au/taskforce/final-report/
[7] Sugar Research Australia, https://sugarresearch.com.au/growers-and-millers/farming-systems/

- Both programs need to ensure they promote Reef Safe practices and put the industry on a pathway to reducing farm pollution in line with the Federal and Queensland government's 2025 water quality targets.
- It is also essential that both programs monitor uptake and collect data that is independently verified to ensure that Reef Safe practice changes and pollution reductions actually occur.
- The Queensland Government should ensure the *Smartcane Best Management Practice* is Reef Safe and work with the industry to set milestones for *Best Management Practice* adoption, continual improvement and accreditation in line with the 2025 water quality targets.

Restoration of low productivity land

- In some catchments, changing farming practices may be insufficient to achieve the 2025 targets. In these cases, converting to other uses the relatively small area of low productivity farm land that makes a disproportionate contribution to nutrient run-off can be a cost-effective way to cut pollution.
- Restoring natural vegetation and hydrology in riparian and wetland areas can deliver significant carbon, water quality and biodiversity benefits, with potential revenue from offset markets.
- Trial sites should be established to validate the production and profit potential for landowners, as well as the environmental benefits and payments.

Incentives to assist succession and industry modernisation

- Some growers wish to exit the industry, while others are keen to expand their cane businesses.
- Carefully targeted incentives can assist both groups, accelerating the farm consolidation and modernisation needed to boost productivity and cut pollution.
- Governments should establish low interest loan funds, offer exemption from stamp duty, and provide other financial incentives to facilitate the transfer of farm land from willing sellers to buyers, conditional on verified delivery of water quality and other environmental benefits.

Recommended policy for the Australian and Queensland governments

- The Queensland Government should legislate to stop excessive tree clearing and, at the same time, provide financial incentives to graziers, farmers and other landholders to replant and rehabilitate vegetation on environmentally sensitive lands, including through access to carbon and other offset markets.
- The Queensland Government commissioned a report in 2016, *Costs of achieving the water quality targets for the Great Barrier Reef*. The report showed that it would cost around $400 million to deliver the nitrogen reductions needed to achieve the 2025 water quality targets, or about $50 million per year including 2025. This is a modest investment to achieve an ambitious target for one of the key pollutants threating the Reef. WWF believes that a $400 million investment in reducing fertiliser in farm run-off needs to begin immediately to help secure the future of Queensland's cane farmers, as well as the future of the Great Barrier Reef and the tourism and other jobs that depend on it.

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