Department of Agriculture, Fisheries and Forestry
GPO Box 858
Canberra ACT 2601

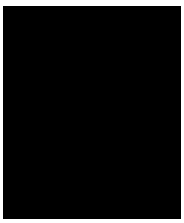
December 12, 2023

To whom it may concern,

**Re: Agriculture and Land Sectoral Plan**

This public submission is made by Costa Group Holdings Ltd in response to the Agriculture, land and emissions Discussion Paper.

Yours faithfully



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**About Costa**

Costa Group Holdings Ltd (Costa) is a vertically integrated horticultural company. Within Australia, Costa's farming operations cover 7,200+ planted hectares, growing, marketing and supplying a range of fresh produce, including:

- Berries (blueberries, raspberries, blackberries, and strawberries)
- Citrus (oranges and mandarins)
- Mushrooms
- Glasshouse tomatoes
- Avocados
- Table grapes &
- Bananas

Costa is a major exporter of fresh produce, including citrus, table grapes, avocados and blueberries, and an importer of table grapes and citrus.

Costa's international operations cover 740 planted hectares and include the growing of blueberries in northern and southern Morocco, and growing blueberries, raspberries and blackberries across multiple farms in Yunnan Province, China.

Across its Australian operations Costa employs more than 5,100 FTEs, and more than 8,400 FTEs in total across its entire operations.

**Executive summary**

Costa is fully supportive of the Australian Government's commitment to the Paris Agreement and the goal of reaching net zero emissions by 2050 and to reach emission levels of 43% below 2005 by 2030. As a company that has formally committed to net zero emissions by 2050, we welcome the development of sector-based decarbonisation plans as a pathway to achieve these goals.

Costa also looks forward to the horticultural sector being provided with the opportunity to make a meaningful contribution to its formulation and implementation.

The agricultural industry, and horticulture more specifically, plays a key role in global food security. Ensuring that the Australian population continues to have access to fresh produce that is both affordable and of a high quality is a responsibility that the sector takes very seriously. Each year, Australia's horticultural producers grow 6 million tonnes of fruits, vegetables and nuts to nourish people around Australia and the world.[1]

The agriculture sector accounts for approximately 1.9% of Australia's value-added GDP and 2.6% of employment in 2019-201 with a $100 billion-a-year aspiration by 2030.[2] The horticulture growing

[1] https://www.horticulture.com.au/contentassets/f629a21ab8514f16882f40764927d09f/2023-horticulture-sustainability-framework-003.pdf

[2] https://farmersforclimateaction.org.au/wp-content/uploads/2021/09/FCA-EY-FINAL-Report-Low-emissions-future-for-Agriculture.pdf

industry has a gross value of production of $15.2 billion in 2020-21, employing about 64,650 full-time equivalent peoples.[3]

We recognise the importance of reducing emissions to reduce future climate risks, both for Australia's long-term interests, but also to ensure the fresh produce industry can continue to grow and be competitive in the world market.

As an industry which is highly exposed to the impact of extreme weather events and seasonal conditions, there is much work already being done to reduce the environmental impact of our operations and to adapt and develop innovative production and growing techniques.

We are investing in new technology and production techniques to minimise inputs, including water and fertilisers, and have a strong focus on the adoption of renewable energy.

In respect to the development of the sector-based plan, the key areas for consideration which we are concentrating on in this submission are as follows:

1. Framework for measuring emissions
2. Renewable energy incentives
3. Carbon capture
4. Food waste
5. Fertiliser
6. Recycling

**Framework for measuring emissions**

Existing data demonstrates that emissions from horticultural production as a share of overall agricultural emissions are small (circa 1%), however there are significant data gaps and outdated research around horticulture's emissions which need to be addressed.

As a member of the Australian Fresh Produce Alliance, we believe there is a need to address this lack of consistency in order to identify and realise opportunities around emissions and what role horticulture could realistically play with respect to economy wide emissions reductions. Without this data to guide conversations and inform decisions, the setting of targets and overt focus on emissions reduction is pre-emptive and not productive.

The Alliance is currently developing a framework for the capture and measurement of horticulture emissions.[4] This framework will form the foundation of a collective effort by industry and stakeholders to achieve a clearer understanding of the industry's emissions profile. This in turn will assist in identifying opportunities, forming considered, practical, cost effective and deliberative policy, and coordinating both public and private investment.

The Discussion Paper indicates that indirect (Scope 3) emissions will not be addressed by the plan. This appears to be short-sighted given future reporting requirements already being flagged by the Science Based Target initiatives and the International Sustainability Standards Board, relating to Scope 3 emissions.

[3] https://www.horticulture.com.au/contentassets/5f9135b5a87a4212a70abc8bf10f80b4/contribution-of-australian-horticulture-industry-final-report.pdf
[4] http://freshproduce.org.au/policy/

In reality fresh produce customers (major retailers) are already moving to expect suppliers to work with them on meeting Scope 3 targets.

Coles, for example, has announced a Scope 3 emissions supplier engagement target with at least 75% of its suppliers by spend to set science-based emissions reduction targets by the end of June 2027.

**Renewable energy incentives**

Costa has invested heavily in the expansion of its glasshouse operation for tomato production, which enables tomatoes to be grown in less space and with a greater yield per input used versus field grown tomatoes. Our 40 hectares of glasshouse production is equal to about 432 hectares in field grown crops, using 95% less pesticides, 85% less fertiliser and 85% less water than outdoor crops.

One of the key challenges in Australia is finding a carbon neutral energy solution that generates the $C0_2$ required for the glasshouse production. While technology is emerging in Europe, there are currently no commercially suitable solutions available in Australia.

There are various different government schemes at both the state and federal level, however a more streamlined approach for grants and subsidies for research and development, and capital projects, would help to incentivise businesses to pursue innovative new technology that has potential to play a key role in meeting emission reduction targets.

We note that the recently released report on food security 'Australian Food Story: Feeding the Nation and Beyond' has included as one of its recommendations 'that the Australian Government develop a funding stream for long-term, public-interest RD&E which promotes the environmental sustainability of agricultural production'[5].

As noted in section 5.1 of the Discussion Paper, there is a recognised gap between 'promising solutions and commercial scale availability' for adoption on farm. Costa supports any moves that would create better coordination and collaboration and incentives for businesses to trial new and innovative solutions.

In addition, under the current carbon auditing framework there is no recognition of the way in which glasshouses use $C0_2$. Rather than being purely a bi-product of energy production, the $C0_2$ is an essential part of the production process and is injected back into the glasshouse to increase production.

A mechanism to measure the amount of $C0_2$ which is reused in this system would provide a more accurate picture of emissions in this form of production.

<u>Solar energy</u>

Costa has identified the adoption of renewable energy sources, and in particular solar energy, as a priority and continues to invest in solar projects across a range of sites. In 2023 there were seven additional solar systems installed, bringing the total number across our Australian operations to 11

5 https://www.aph.gov.au/Parliamentary_Business/Committees/House/Agriculture/FoodsecurityinAustrali/Australian_Food_Story_Feeding_the_Nation_and_Beyond/List_of_recommendations

with further installations planned for 2024. Our Monarto Mushroom farm in South Australia contains our largest solar system, with more than 5000 panels.

While Costa is committed to progressing with solar, a significant obstacle is the inconsistency between states in relation to the opportunity to feed back into the electricity grid.

Packing sheds are a major user of power, but generally are operated only on a seasonal basis. These are ideal locations to install solar, however with operations only running for 5-6 months of the year the ability to feedback into the grid in the off-season is critical to make this a viable investment.

In South Australia, there has been little appetite from the South Australian Power Network to support export back into the grid. In Queensland, the maximum export is 15kW, which again is a major disincentive to install multiple systems on seasonal packsheds.

In addition, there is a lack of support to link on-farm systems to enable solar from sheds to offset pump usage. While these are relatively minor issues at each farm, a more flexible approach taken by electricity providers would encourage a much greater take up across a large number of operations, which collectively has potential to provide significant benefits in the reduction of emissions.

Combining the ability to feed back into the grid, with assistance to transition to battery storage would provide agricultural companies with a viable emissions reduction pathway. Assistance to support initial investment in the purchase of batteries, tax breaks or other incentives schemes will enable this uptake to occur. Until battery storage becomes a more economical option, the ability to further expand and optimise investment in solar is currently limited.

Electric vehicles

There is widespread interest and appetite for moving to electric vehicles however there are currently no electric vehicles which suit the requirements of our farming operations.

Costa's vehicle fleet is made up of 97% utility vehicles and no existing electric models meet the specifications we require to replace the current models. Costa has also conducted a trial of electric trucks in our Tasmanian berry operations but given the limited range (distance) these are also not currently suitable for wide-scale adoption.

While there are existing state-based incentives to encourage the transition to electric vehicle fleets, programs to encourage and support the design and/or manufacturing of vehicles suitable for agriculture would assist in the take-up of these vehicles across a broad section of the industry.

With limited charging facilities in many regional and rural locations, support for producers to develop on-farm charging infrastructure (as noted above) would also provide a much greater financial incentive. Linking this with on-farm renewable energy systems would provide added benefits in the bid to reduce emissions in this sector.

**Carbon capture**

Sequestering carbon into vegetation and soils will play a key role in meeting emissions targets and has potential to provide new income streams for producers. In providing financial incentives for tree planting however, care needs to be taken that this does not push farmers out of food production.

The way in which the carbon credits system has evolved has favoured once-off plantings of biodiversity tracts at the expense of land for food production.

Financial incentives to support the biomes of soil to improve sequestration will also solve a big part of the problem. Assisting farms to get recognition for soil sequestration ie. similar to corn schemes in the US will encourage farms to improve soil health, seek to use less fertilisers and improve the environment.

Consideration also needs to be given to assessing the carbon sequestration capability of existing fruit tree orchards, many of which have a growth cycle of more than 30 years. Including existing fruit tree crops in a carbon credit system acknowledges the long-term nature of carbon storage in these established orchards. There appears to be no obvious reason not to include fruit bearing tress. If there is such a reason or reasons it is important for these to be made more clearly and widely known.

**Fertiliser**

While addressing the environmental impact of fertiliser use is important, careful consideration will need to be given to how any moves to restrict or reduce the use of such inputs may impact the horticulture sector.

Fertilisers provide essential nutrients which are crucial for plant growth and development, and the increase in fertiliser use has gone hand-in-hand with increasing food yields and enabling production at a scale which is also economically feasible and warrants capital investment of tens of millions of dollars.

Banning or severely limiting fertiliser use could lead to reduced crop yields, affecting food production and potentially causing food shortages. The rising food prices and food shortages experienced in Sri Lanka where the nation's rice and tea crops failed as a result of the attempted transition away from synthetic fertiliser to organics (ie. manure) is a case in point.

There is ongoing debate about the efficacy of organic versus synthetic fertilisers and high variability in emission intensities associated with fertiliser use.[6]

Policymakers, farmers, and researchers will need to work collaboratively to find solutions that balance the needs of agriculture, the environment, and society.

**Food waste**

While two-thirds of the emissions generated by the agricultural sector relate to methane from livestock, there is also a portion of methane-generated emissions which comes from waste to landfill.

Globally, one-third of the food produced is wasted (on-farm and in the supply chain, from food outlets and in homes). Australia currently creates more than 7.6m tonnes of food waste each year (Foodbank Australia). In landfill, food also produces methane and reducing the incidence and volume of food waste through the entire supply chain, should be part of the decarbonisation plan for the sector.

[6] https://www.carbonbrief.org/qa-what-does-the-worlds-reliance-on-fertilisers-mean-for-climate-change/

Food waste through the supply chain is an economic, social and environmental loss that all parties are seeking to minimise, but there is no easy solution.

Justifiably, there is pressure being applied for more sustainable packaging and there is plenty of examples of how this is being effectively applied. This should not however come at the cost of the key role that packaging plays in minimising food waste, extending shelf life and protecting the produce as it travels through the supply chain.

Packaging helps to ensure that food gets to the market in an acceptable condition, has freshness and longevity, is purchased and consumed, rather than being discarded in the supply chain.

There is a lack of understanding between the use of packaging to among other things, reduce the environmental impacts of food waste, compared to reducing the environmental impacts of packaging.

A collaborative process involving producers, retailers, government, researchers and waste/logistics organisations is required to better understand the role that packaging plays in the food supply chain and to find solutions to meet needs across the supply chain.

Visual specifications required by retailers, for example no marks on banana skins, should also be among the considerations when looking at how best to reduce food waste.

We again note there are relevant recommendations made in the report 'Australian Food Story: Feeding the Nation and Beyond', which relate to the recovery and recycling of plastic packaging; review of best before and use by dates on food; and a research program focused on the development of a circular food economy.

**Recycling**

Farm waste includes organic wastes (green waste, product loss, sludges), plastics (protective film, piping, irrigation and drainage materials, nets, mesh, bags, twines, ropes, containers, pots and labels), treated timber posts and workshop and machinery waste.[7]

There is considerable work being done to close the loop on production systems, through either on-farm reuse or recycling into new products which are then reused on farm.

There remain however significant barriers to implementing programs at scale. The recycling options available to producers vary considerably across local government and state boundaries. By way of example, it is only through persistent negotiation with individual recycling providers that Costa has been able to identify a recycling solution for irrigation drip line. This will result in a significant reduction in landfill waste, and therefore a reduction in emissions.

Establishing a coordinated and sector-wide approach to identifying waste solutions will be key to enabling a step-change in the move to a circular economy. This needs to involve and encourage rural and regional centres to be part of the solution for recycling farm waste, to ensure that distance does not become a barrier for producers to participate. Too often we seek to recycle but the challenges associated with location of providers means there are few if any options.

[7] https://www.horticulture.com.au/contentassets/f629a21ab8514f16882f40764927d09f/2023-horticulture-sustainability-framework-003.pdf