PUBLIC DISCLOSURE STATEMENT

TARONGA CONSERVATION SOCIETY AUSTRALIA PTY LTD
ORGANISATION CERTIFICATION

FY 2019 - 2020

Australian Government

Climate Active
Public Disclosure Statement

NAME OF CERTIFIED ENTITY: Taronga Conservation Society Australia Pty Ltd

REPORTING PERIOD: 1 July 2019 – 30 June 2020

Declaration

To the best of my knowledge, the information provided in this Public Disclosure Statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.

Signature 

Date 7th June 2021

Name of Signatory Bridget Corcoran

Position of Signatory Manager, Environmental Sustainability

Australian Government
Department of Industry, Science, Energy and Resources

1. CARBON NEUTRAL INFORMATION

Description of certification

"At Taronga our vision is to secure a shared future for wildlife and people. Addressing climate change is absolutely paramount in achieving that goal."

This inventory has been prepared for the financial year from 1 July 2019 to 30 June 2020 and covers the business operations of Taronga Conservation Society Australia.

The operational boundary has been defined based on an operational control test, in accordance with the principles of the National Greenhouse and Energy Reporting Act 2007. This includes all operations which are controlled by the Taronga Conservation Society (TCS), including: Taronga Zoo and Taronga Western Plains Zoo.

The boundary excludes the transport of visitors and guests, tenants, and contractors to and from facilities operated by TCS.

The methods used for collating data, performing calculations and presenting the carbon account are in accordance with the following standards:

- Climate Active Standards
- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- National Greenhouse and Energy Reporting (Measurement) Determination 2008

Where possible, the calculation methodologies and emission factors used in this inventory are derived from the National Greenhouse Accounts (NGA) Factors in accordance with "Method 1" from the National Greenhouse and Energy Reporting (Measurement) Determination 2008.

The greenhouse gases considered within the inventory are those that are commonly reported under the Kyoto Protocol; carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O) and synthetic gases - hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) sulphur hexafluoride (SF6) and nitrogen trifluoride (NF3). These have been expressed as carbon dioxide equivalents (CO2-e) using relative global warming potentials (GWPs).

Organisation description

Taronga Conservation Society Australia (TCS) is a statutory authority owned by the people of New South Wales and administered by the Department of Planning, Industry and Environment. TCS is a not-for-profit conservation organisation working towards saving endangered wildlife from extinctions. Its vision is to 'secure a shared future for wildlife and people'. The organisation's activities span across the fields of conservation, research and environmental education.

TCS operates Taronga Zoo in Sydney and Taronga Western Plains Zoo in Dubbo, combined both zoos welcome almost 2 million guest each year.

TCS has a deep commitment to conservation science. In Australia and internationally, TCS works with universities, governments, and conservation partners to respond to challenges impacting wildlife and people. TCS has a proud tradition of delivering conservation education programs that increase knowledge and awareness and inspire students to become champions for wildlife.

TCS sees first-hand the impacts of climate change and other human-induced threats to wildlife and this has spurred the organisation to take bold steps to reduce its environmental footprint.

2. EMISSION BOUNDARY

Diagram of the certification boundary

Quantified

Electricity

Natural Gas

Telecommunications

Water

IT Equipment

Office Paper

Staff Clothing

Animal Feed

Employee Commute

Working From Home

Business Flights

Gasoline

Diesel Oil

LPG

Cleaning Services

Food & Catering

Printing

Hotel Accommodation (International & Domestic)

Taxis

Refrigerants

Waste to Landfill

Recycling (Including compost, organics & liquid waste from grease traps)

Non-quantified

Wastewater Treatment Plant

Vet Supplies

Excluded

Visitor, Tenant and Contractor Travel

Animal Transport

Animal Emissions

Non-quantified sources

- **Wastewater treatment plant**: A small wastewater treatment plant (WTP) is onsite at the Taronga Zoo in Mosman. Based-on reports prepared to meet EPA pollution monitoring requirements, emissions resulting from the WTP are estimated to represent less than 1% of the overall carbon account.
- **Vet supplies**: The effort required to gather data related to pharmaceutical and medical supplies is greater than their potential impacts on the carbon accounts as the emissions are deemed to be immaterial.

"Climate Active certification is one way that Taronga continues to be recognised for its leadership in sustainability."

Data management plan

N/A

Excluded sources (outside of certification boundary)

Visitor, tenant and contractor travel to and from TCS operated facilities: Carbon emissions related to travel to and from the zoos by people who are not directly employed by TCS falls outside of the operational control boundary. Also, there is no jurisdiction to enforce policies and procedures related to health, safety and the environment.

Animal Transport: The associated emissions from animal transport are outside of TCS's certification boundary as they are shared emissions between TCS and the zoo which the animal is transferred to/from.

Animal Emissions: There is a high degree of uncertainty around the accurate measurement of emissions from the various animals housed in the zoos. Animals are generally maintained in a wild state and not domesticated or used for intensive farming purposes.

3. EMISSIONS SUMMARY

Emissions reduction strategy

In 2020 TCS developed a Carbon Strategy which identified key priorities and outlined concrete actions to reduce the organisation's carbon footprint. The strategy focuses on the following four pillars:

- Smart Demand

- Smart Supply

- Partnerships & Contracts

- Community Education & Engagement

In the strategy, Taronga set out to reduce the carbon footprint by 10%, reduce energy consumption by 20%, increase renewable energy generation by 5% and increase green power purchase by 10%.

Emissions over time

Taronga's emissions have increased over time due to growth in the business. For example, The Zoofari lodge and Wildlife Retreat were two purpose-built accommodation options with guest rooms and cabins and attached restaurants. Growth in the business also led to growth in staff who required office space and amenities. This growth in business and organisation size has had far reaching effect on emissions such as increased travel, greater demand for electricity and more waste generated. However when comparing the emissions on an intensity level, the emissions per FTE have actually decreased by 7.4%.

The decrease in emissions since the previous year is likely a result of carbon reduction initiatives but also the impact of the coronavirus pandemic, which caused not only a reduction in visitors and accommodation guests but also prompted a large decrease in emissions associated with staff due to stay-at-home orders.

Table 1

Emissions since base year			
	Base year: 2017-18	Year 1: 2018-19	Current year Year 2: 2019-20
Total tCO_2-e	12,704.1	13,789.4	13,425.5

Emissions reduction actions

So far, Taronga has invested over $1 million dollars in installing solar PV systems at both sites, equal to almost 500 kilowatts of onsite renewable energy generation. This includes a solar array at Western Plains Zoo Dubbo which charges 36 golf-buggy style carts for guests to use for exploring the grounds.

Taronga also priortises energy efficiency projects to reduce energy consumption. An example was the decommissioning of the electric slab heating in our Zoofari lodge and replacing it with energy efficient reverse cycle split systems. The replacement strategy led to a decrease of electricity consumption during the winter months of up to 25%. Taronga is also in the process of installing sub meters across both zoos in order to isolate and address energy intensive areas.

To ensure that new buildings are energy efficient, Taronga has recently developed a policy that capital works projects over a certain value must undertake a sustainability certification such as Green Star. Taronga achieved a 6-star Green Star rating for the new Institute of Science and Learning by incorporating multiple sustainability initiatives in design such as passive heating and cooling. One of the newest buildings at Taronga Zoo Sydney, the Wildlife Retreat, will also receive recognition from the Green Building Council of Australia for demonstrating that the building's predicted greenhouse gas emissions have been reduced below the standard practice benchmark.

Taronga has also begun the journey to transition to renewables, with the goal to match operational electricity needs with clean energy like wind or solar via a Power Purchase Agreement. After sourcing offsite renewable electricity to power operations, Taronga's largest source of emissions will be those associated with food purchased for animals but also guests. For animal food, Taronga is currently working with partners to identify additional opportunities to swap virgin animal food products with agricultural byproducts and piggy backing on existing trade routes.

Emissions summary (inventory)

Table 2

Emission source category	tonnes CO_2-e
Accommodation and facilities	21.745
Animal Feed	1,061.819
Business Flights	144.311
Cleaning and Chemicals	35.835
Electricity	8,381.609
Employee Commute	625.798
Food	1,101.002
ICT services and equipment	213.622
Natural Gas	506.876
Office equipment & supplies	237.466
Products	19.286
Refrigerants	261.904
Stationary Fuels	418.975
Taxis & Ridesharing	3.182
Waste	248.670
Water	127.444
Working From Home	15.917
Total Net Emissions	***13,425.461***

Uplift factors

Table 3

Reason for uplift factor	tonnes CO_2-e
N/A	
Total footprint to offset (uplift factors + net emissions)	***13,425.461***

Carbon neutral products

Winc and Reflex carbon neutral paper

Electricity summary

Electricity was calculated using a Location-based approach.

The Climate Active team are consulting on the use of a market vs location-based approach for electricity accounting with a view to finalising a policy decision for the carbon neutral certification by July 2020. Given a decision is still pending on the accounting way forward, a summary of emissions using both measures has been provided for full disclosure and to ensure year on year comparisons can be made.

Market-based approach electricity summary

Table 4

Electricity inventory items	kWh	Emissions (tonnes CO_2-e)
Electricity Renewables	1,732,199	0.00
Electricity Carbon Neutral Power	0	0.00
Electricity Remaining	7,580,700	8,195.495
Renewable electricity percentage	19%	
Net emissions (Market based approach)		***8,195.495***

Location-based summary

Table 5

State/ Territory	Electricity Inventory items	kWh	Full Emission factor (Scope 2 +3)	Emissions (tonnes CO_2-e)
ACT/NSW	Electricity Renewables	-	-0.90	0.00
ACT/NSW	Electricity Carbon Neutral Power	-	-0.90	0.00
ACT/NSW	Netted off (exported on-site generation)	-	-0.81	0.00
ACT/NSW	Electricity Total	9,312,899	0.90	8,381.609
	Total net electricity emissions		*0.00*	***8,381.609***

4. CARBON OFFSETS

Offset purchasing strategy: in arrears

Offsets summary

Table 7

1. Total offsets required for this report	13,426
2. Offsets retired in previous reports and used in this report	712
3. Net offsets required for this report	12,714

Project description	**Eligible offset units type**	**Registry unit retired in**	**Date retired**	**Serial number (including hyperlink to registry transaction record)**	**Vintage**	**Quantity (tonnes CO2-e)**	**Quantity used for previous report**	**Quantity to be banked for future years**	**Quantity to be used this report**
Bundled Wind Power Project in Rajasthan by Orange Renewable Power Pty Ltd	VCUs	APX	20 Sep 2019	7058-367666034-367666798-VCU-034-APX-IN-1-1265-01042018-31122018-0	2018	765	53	0	712
150 MW grid connected Wind Power based electricity generation project in Gujarat, India	VCUs	Verra	13 Jan 2021	9088-67170752-67183751-VCS-VCU-1491-VER-IN-1-292-18062016-31122016-0 https://registry.verra.org/myModule/rpt/myrpt.asp?r=206&h=123796	2016	13,000	0	286	12,714
				Total offsets retired this report and used in this report					***13,426***
				Total offsets retired this report and banked for future reports				***286***	

Co-benefits

Wind Power Electricity Project in Gujarat, India

The main purpose of the project is to generate renewable electricity using wind power and feed the generated output to the local grid in Gujarat, contributing to climate change mitigation efforts. Apart from the generation of renewable energy-based electricity, the project has also been conceived to enhance the propagation of commercialisation of wind power generation in the region and to contribute to the sustainable development of the region, socially, environmentally and economically. The proposed project will provide employment opportunities in the context of building infrastructure, installation and maintenance and managing the wind farm. Thus, the project helps with improving the quality of life of the people in the community.

Bundled Wind Power Project in Rajasthan by Orange Renewable Power Pty Ltd

Orange Renewable Power Private Limited, the company implementing the project, strives to eradicate hunger, poverty and malnutrition through heath and sanitation initiatives and contribute to the UN Sustainable Development Goals (SDGs). In addition to generating renewable energy, Orange Renewable Power is having a wider positive impact on the community. The project is improving health and sanitation by providing health care centers, an ambulance service, measures such as ante and post-natal care, making safe drinking water available through bore wells, pumps and clean water storage tanks, and implementing sanitary toilet and hand washing facilities in the community. It is also improving environmental outcomes by teaching water conservation to farmers, promoting rainwater harvesting, dam maintenance, and irrigation techniques, and planting trees along roads and in public spaces. There are also economic and humanitarian benefits by providing employment for local people, implementing development programs in trades and technology, adopting strict child labor policies for the project and its supply chain, and developing awareness programs for anti-violence, gender and social equality. There are also improvements in education by providing school infrastructure, furniture, books and uniforms, implementing literacy programs for men and women and providing scholarships.

5. USE OF TRADE MARK

Table 8

Description where trademark used	Logo type
External and Internal Presentations	Certified organisation
Marketing Material	Certified organisation
Website	Certified organisation
Annual Reports	Certified organisation

6. ADDITIONAL INFORMATION

Greenfleet Biodiversity Offsets

Taronga Conservation Society of Australia purchased an additional 2,600 tonnes of biodiversity offsets through Greenfleet. Greenfleet is a leading Australian not-for-profit environmental organisation on a mission to protect our climate by restoring forests. Greenfleet forests address critical deforestation, restore habitat for wildlife including many endangered species, capture carbon emissions to protect our climate, reduce soil erosion, improve water quality, and economically support local and indigenous communities.

APPENDIX 1

Excluded emissions

To be deemed relevant an emission must meet two of the five relevance criteria. Excluded emissions are detailed below against each of the five criteria.

Table 9

Relevance test					
Excluded emission sources	*The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions*	*The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.*	*Key stakeholders deem the emissions from a particular source are relevant.*	*The responsible entity has the potential to influence the reduction of emissions from a particular source.*	*The emissions are from outsourced activities previously undertaken within the organisation's boundary, or from outsourced activities typically undertaken within the boundary for comparable organisations.*
Visitor, tenant and contractor travel	No	No	No	No	No
Animal Transport	No	No	No	No	No
Animal Emissions	No	No	No	No	No

APPENDIX 2

Non-quantified emissions for organisations

Please advise which of the reasons applies to each of your non-quantified emissions. You may add rows if required.

Table 10

Non-quantification test				
Relevant-non-quantified emission sources	*Immaterial <1% for individual items and no more than 5% collectively*	*Quantification is not cost effective relative to the size of the emission but uplift applied.*	*Data unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.*	*Initial emissions non-quantified but repairs and replacements quantified*
Wastewater Treatment Plant	Yes	No	No	No
Vet Supplies	Yes	No	No	No