




PUBLIC DISCLOSURE STATEMENT

BIOPAK PTY LTD (TRADING AS BIOPAK)

**PRODUCT CERTIFICATION
CY2022**

Australian Government
Climate Active
Public Disclosure Statement



NAME OF CERTIFIED ENTITY	BioPak Pty Ltd (trading as BioPak)
REPORTING PERIOD	Calendar year 1 January 2022 – 31 December 2022
DECLARATION	<p><i>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.</i></p> <p style="text-align: center;"><i>Signature here</i> </p> <p>Name of signatory Lea Maguero Position of signatory Head of Sustainability Date 16/11/2023</p>



Australian Government
**Department of Climate Change, Energy,
 the Environment and Water**

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 Version March 2023.



1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	118,037 tCO ₂ -e
THE OFFSETS USED	91.2% VCUs, 8.8% CERs
RENEWABLE ELECTRICITY	N/A
CARBON ACCOUNT	Prepared by: Pangolin Associates
TECHNICAL ASSESSMENT	Date: CY2021 James Endean Pangolin Associates Next technical assessment due: CY2024

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2. CARBON NEUTRAL INFORMATION

Description of certification

This inventory has been prepared for the calendar year from 1 January 2022 to 31 December 2022 and covers the sale and use of BioPak products in Australia and internationally.

The Australian business operations of BioPak, ABN: 48 119 998 711, are included within this certification boundary and are also certified as carbon neutral by Climate Active.

Considering the large variety of products sold to customers, it was not practical or cost effective to carry out separate Life Cycle Assessments (LCAs) for each type of product. The approach taken was to categorise the BioPak product range into 24 product categories based on the product type and material of construction. Total emissions for each of these categories were calculated and the emissions per product item estimated based on the total number of units sold.

Functional unit

The functional unit in the product LCA is a single BioPak item (i.e. one coffee cup, one food container etc.) sold and used in Australia and internationally.

Product/Service description

BioPak is a supplier of a range of foodservice disposable items such as coffee cups, takeaway containers, plates and produce trays. BioPak is focused on replacing fossil fuel-based plastics used in food services wares by offering compostable alternatives made from rapidly renewable sustainably sourced materials.

BioPak has been certified carbon neutral for its international business operations (organisation) and its entire product range sold within Australia (carbon neutral products), New Zealand, Singapore and the UK.

3. EMISSIONS BOUNDARY

Inside the emissions boundary

All emission sources listed in the emissions boundary are part of the carbon neutral claim.

Quantified emissions have been assessed as 'attributable processes' of a product or service. These attributable processes are services, materials and energy flows that become the product or service, make the product or service and carry the product or service through its life cycle. These attributable emissions have been quantified in the carbon inventory.

Non-quantified emissions have been assessed as attributable and are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. All material emissions are accounted for through an uplift factor. Further detail is available at Appendix C.

Outside the emissions boundary

Non-attributable emissions have been assessed as not attributable to a product or service. They can be **optionally included** in the emissions boundary and therefore have been offset, or they can be listed as outside of the emissions boundary (and are therefore not part of the carbon neutral claim). Further detail is available at Appendix D.

Inside emissions boundary

Quantified

Products

Materials
Manufacturing
Packaging
Freight
Disposal

Organisation

Advertising services
Controlled Diesel
Flights & Hotels
Business travel
Parking services
Repair and maintenance
Electricity
Employee Commute
Working From Home
Employment placement
Food and beverage services
Telecommunications
Computer and technical services
Software & Data services
Paper
Printing and stationery
Cleaning
Periodicals
Postage & Courier
Road freight logistics
Warehousing
General products and merchandise
Paper and cardboard packaging
Fabricated metal products
Photography services
Banking & Insurance
Legal services
Accounting services
Consulting services
Education
Interest groups and community organisations
Recycling & Landfill
Water

Non-quantified

Organisation

Refrigerants

Optionally included

N/A

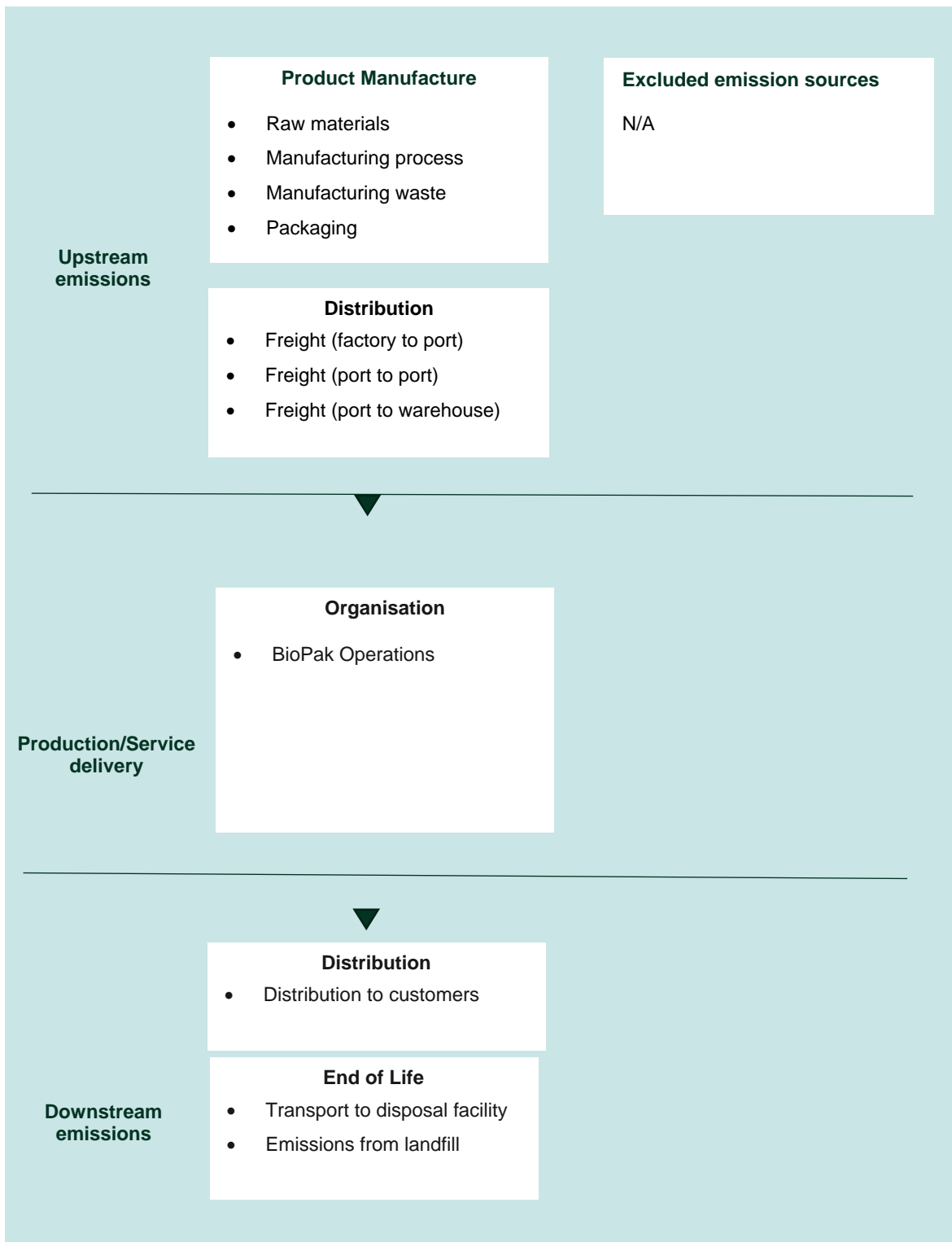
Outside emission boundary

Non-attributable

N/A

Product/service process diagram

The following diagram is cradle to grave.



4. EMISSIONS REDUCTIONS

Emissions reduction strategy

Biopak is planning to reduce its products' emissions by 20% in the next five years against the Calendar Year 2020 baseline.

To achieve this, we will:

- Replace our PLA cutlery with wood cutlery in AU and NZ. As wooden cutlery can act as a carbon sink, the estimated impact of this replacement corresponds to a 2% reduction of our total product footprint. This replacement has already been initiated and will be accelerated by the implementation of Single Use Plastic Bans across Australia and New Zealand
- Replace our PS and CPLA lids with sugarcane pulp lids. Sugarcane pulp is less emissions intensive as it is made from reclaimed material.
- Use more recycled materials, like recycled paperboard.
- Manufacture locally (we have already started sourcing some of our cardboard containers from a local supplier and are investigation bagasse production in Queensland)
- Work with our manufacturing partners to implement renewable energy use wherever possible.
- Increase the amount of compostable packaging and food waste we enable via our Product Stewardship Scheme Compost Connect. We estimate that to cover the equivalent of 20% of our product footprint, we would need to get about 5,250 cafes or small restaurants to compost their food waste and packaging

Progress will be tracked during our annual carbon footprint assessment and will be shared publicly via our annual Sustainability Report, available on our website.

Emissions reduction actions

We have made positive changes across our offices and operations. Our Auckland office now procure renewable energy, and all offices have energy efficiency programs. Our New Zealand warehousing partner also purchases renewable energy, and our Sydney office sends all food waste to an industrial composter. In addition, our company cars in the UK are electric vehicles.

We successfully launched our independent and brand-agnostic product stewardship program Compost Connect in the United Kingdom in 2022, adding to operations in Australia and New Zealand. We have since facilitated hundreds of connections between businesses, individuals, and local composters, enabling them to responsibly compost not just their food waste but also their compostable packaging.

In response to single-use plastic bans and consumer increased awareness of plastic pollution, we have increased our use of lower emissions materials, such as wooden cutlery (negative carbon footprint), sugarcane fibre and recycled paper.

We have co-designed a new manufacturing process with our BioCane manufacturing partner to dramatically reduce energy requirements (40%). Our main PLA supplier is working on building a PLA manufacturing plant in Thailand, closer to our manufacturing partners.

5. EMISSIONS SUMMARY

Emissions over time

Emissions since base year		Total tCO ₂ -e	Emissions intensity of the functional unit (gCO ₂ -e/unit sold)
Base year:	2018	34,190	25.4
Year 2:	2019	51,824	27.8
Year 3:	2020	80,159	33.0
Year 3:	2021	104,030	29.1
Year 4:	2022	118,036.32	28.7

Significant changes in emissions

Emission source name	Previous year emissions (t CO ₂ -e)	Current year emissions (t CO ₂ -e)	Detailed reason for change
Material & Manufacturing Emissions	30,478.7	42,502.59	Business growth and increased in number of products sold.

Use of Climate Active carbon neutral products and services

Certified brand name	Product or Service used
n/a	n/a

Emissions summary

Stage / Attributable Process / Source	tCO ₂ -e
Material & Manufacturing Emissions	42,502.59
Packaging Emissions	5,755.99
Organisation Emissions	3,366.37
Freight Emissions	7,472.37
Disposal Emissions	58,938.99

Emissions intensity per functional unit	28.7 g CO ₂ -e
Number of functional units to be offset	4,113,256,193.00
Total emissions to be offset	118,036.32 t CO ₂ -e

6. CARBON OFFSETS

Offsets retirement approach

The details of offsets relating to this certification are the same as those in the BioPak Organisation PDS.

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

N/A

APPENDIX A: ADDITIONAL INFORMATION

N/A

APPENDIX B: ELECTRICITY SUMMARY

N/A

APPENDIX C: INSIDE EMISSIONS BOUNDARY

Non-quantified emission sources

The following emissions sources have been assessed as attributable, are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. These emissions are accounted for through an uplift factor. They have been non-quantified due to one of the following reasons:

1. **Immaterial** <1% for individual items and no more than 5% collectively
2. **Cost effective** Quantification is not cost effective relative to the size of the emission but uplift applied.
3. **Data unavailable** Data is unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.
4. **Maintenance** Initial emissions non-quantified but repairs and replacements quantified.

Relevant non-quantified emission sources	Justification reason
Refrigerants	Immaterial

Excluded emission sources

Attributable emissions sources can be excluded from the carbon inventory, but still considered as part of the emissions boundary if they meet **all three of the below criteria**. An uplift factor may not necessarily be applied.

1. A data gap exists because primary or secondary data cannot be collected (**no actual data**).
2. Extrapolated and proxy data cannot be determined to fill the data gap (**no projected data**).
3. An estimation determines the emissions from the process to be **immaterial**).

	No actual data	No projected data	Immaterial
N/A			

Data management plan for non-quantified sources

There are no non-quantified sources in the emission boundary that require a data management plan.

APPENDIX D: OUTSIDE EMISSION BOUNDARY

Non-attributable emissions have been assessed as not attributable to a product or service (do not carry, make or become the product/service) and are therefore not part of the carbon neutral claim. To be deemed attributable, an emission must meet two of the five relevance criteria. Emissions which only meet one condition of the relevance test can be assessed as non-attributable and therefore are outside the carbon neutral claim. Non-attributable emissions are detailed below.

1. **Size** The emissions from a particular source are likely to be large relative to other attributable emissions.
2. **Influence** The responsible entity could influence emissions reduction from a particular source.
3. **Risk** The emissions from a particular source contribute to the responsible entity's greenhouse gas risk exposure.
4. **Stakeholders** The emissions from a particular source are deemed relevant by key stakeholders.
5. **Outsourcing** The emissions are from outsourced activities that were previously undertaken by the responsible entity or from outsourced activities that are typically undertaken within the boundary for comparable products or services.

Non-attributable emissions sources summary

Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
N/A						



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