



BIOMAR CHILE'S ASC FEED REPORTS

Report title GHG Emission Report, v1.1
Indicator 1.21.4

Instructions *This template is intended for reporting greenhouse gas emissions results to ASC. The Feed Standard does not prescribe a specific standard or set of methods for generating GHG values. However, suppliers should be aware that the development of the Farm Standard requirements may necessitate the application of specific methods for feed emissions in the future.*

Emissions can be reported in either or both columns using a biophysical or economic allocation approach. Emissions results must be provided according to scope (1-3) as well as by input/activity, being general feed ingredient categories and additional transport and milling emissions that aren't otherwise captured within ingredients. 'Transport and milling' emissions should be at least equal to the sum of scope 1 and scope 2 emissions. If possible, emissions should also be broken down by category (fossil, biogenic, or land use change), facilitated by certain databases and assessment methods. Any uncategorized emissions should be reported as 'Unspecified emissions' (If feed suppliers are unable to determine emissions by category, the total of all emissions can be reported as unspecified).

This template is also expected to reflect the resolution of data that feed suppliers will need to provide to farms to satisfy feed-related emissions modeling for the Farm Standard. Feed suppliers should be ready to adjust the composition of ingredients used in calculations to reflect typical compositions of feeds relevant to each producer, whether that is on a producer-level or a general species-level (e.g. average ASC-compliant salmon feed composition), so that relevant emissions estimates are available to aquaculture producers for their own calculations.

Only enter data in blue cells.

Table 1. Production year
 Year of production (2024) PARGUA **2024**

Table 2. GHG emissions by scope GHG emissions per tonne of ASC compliant feed (kg CO₂-eq/t)

Emissions scope	GHG emissions per tonne of ASC compliant feed (kg CO ₂ -eq/t)	
	Biophysical (mass) model	Economic model
Scope 1	77	77
Scope 2	0	0
Scope 3	4.188	1921
Total	4265	1998

Table 3. GHG emissions by category 1,6 1,7

Emissions category	GHG emissions per tonne of ASC compliant feed (kg CO ₂ -eq/t)	
	Biophysical (mass) model	Economic model
Fossil emissions	2179	1097
Biogenic emissions	636	48
Land use change emissions	1450	853
Unspecified emissions		
Total	4265	1998

Table 4. GHG emission by Input / Activity 1,8 1,9 1,11 1,12

Input / Activity	GHG emissions per tonne of ASC compliant feed (kg CO ₂ -eq/t)		
	Quantity (kg/t)	Biophysical (mass) model	Economic model
Soy crop inputs	117	527	770
Other crop inputs	528	524	680
Reduction fishery inputs	60	66	49
Fishery by-product inputs			
Poultry / livestock inputs	224	2835	151
Other feed inputs	72	145	178
Transport and milling		170	170
Total	1001	4267	1998

Notes
 All emissions values must be reported in units of kg CO₂-equivalent per tonne of ASC compliant feed.
 Emissions totals for each section should be equivalent.
 Total feed input quantity (kg/t) must equal 1000. Use 'Other feed inputs' to make up any difference from 1000 kg. 'Other feed inputs' should also include vitamins, amino acids, and other microingredients.
 Transport-related emissions may be difficult to separate from ingredient production and processing emissions, depending on the data source used. Do not include any transport emissions in 'Transport and milling'



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Table 1. Production year
Year of production (2024) ERCILLA

2024

Table 2. GHG emissions by scope

GHG emissions per tonne of ASC compliant feed (kg CO₂-eq/t)

Emissions scope	GHG emissions per tonne of ASC compliant feed (kg CO ₂ -eq/t)	
	Biophysical (mass) model	Economic model
Scope 1	91	91
Scope 2	0	0
Scope 3	4.214	1889
Total	4305	1980

Table 3. GHG emissions by category

Emissions category	GHG emissions per tonne of ASC compliant feed (kg CO ₂ -eq/t)	
	Biophysical (mass) model	Economic model
Fossil emissions	2218	1132
Biogenic emissions	651	45
Land use change emissions	1436	803
Unspecified emissions		
Total	4305	1980

Table 4. GHG emission by Input / Activity

Input / Activity	GHG emissions per tonne of ASC compliant feed (kg CO ₂ -eq/t)		
	Quantity (kg/t)	Biophysical (mass) model	Economic model
Soy crop inputs	110	502	732
Other crop inputs	510	495	652
Reduction fishery inputs	86	103	81
Fishery by-product inputs			
Poultry / livestock inputs	221	2878	151
Other feed inputs	74	148	186
Transport and milling	0	179	179
Total	1001	4305	1981

Notes

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Transport-related emissions may be difficult to separate from ingredient production and processing emissions, depending on the data source used. Do not include any transport emissions in 'Transport and milling'



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Table 1. Production year
Year of production (2024) CASTRO

2024

Table 2. GHG emissions by scope

GHG emissions per tonne of ASC compliant feed (kg CO₂-eq/t)

Emissions scope	GHG emissions per tonne of ASC compliant feed (kg CO ₂ -eq/t)	
	Biophysical (mass) model	Economic model
Scope 1	88	88
Scope 2	0	0
Scope 3	2,995	1562
Total	3083	1650

Table 3. GHG emissions by category

Emissions category	GHG emissions per tonne of ASC compliant feed (kg CO ₂ -eq/t)	
	Biophysical (mass) model	Economic model
Fossil emissions	1829	1160
Biogenic emissions	412	6
Land use change emissions	842	483
Unspecified emissions		
Total	3083	1649

Table 4. GHG emission by Input / Activity

Input / Activity	GHG emissions per tonne of ASC compliant feed (kg CO ₂ -eq/t)		
	Quantity (kg/t)	Biophysical (mass) model	Economic model
Soy crop inputs	72	350	497
Other crop inputs	448	322	439
Reduction fishery inputs	270	312	266
Fishery by-product inputs	0	0	0
Poultry / livestock inputs	130	1773	87
Other feed inputs	80	155	189
Transport and milling	0	172	172
Total	1000	3084	1650

Notes

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Transport-related emissions may be difficult to separate from ingredient production and processing emissions, depending on the data source used. Do not include any transport emissions in 'Transport and milling'