

IMPACT DIMENSION	IMPACT INDICATOR	PERFORMANCE	RATIONALE
Life on Planet & Natural Resources			
Climate Change	Product Carbon Footprint (PCF)		<i>PCF 4.43 kg CO₂ eq./kg product at store</i>
Biodiversity Loss	Loss of biodiversity & biosphere integrity		<i>Moderate system- inherent risks (best practices)</i>
Deforestation	Land use change due to deforestation		<i>No direct risk, indirect risk through (e.g. soy)</i>
Freshwater Depletion	Risk for freshwater depletion		<i>No direct risk, indirect risk through feed production</i>
Eutrophication	Discharge of nitrogen (N) and phosphorous (P)		<i>High nutrient input through feed, best practices in place</i>
Toxic Compounds	Pollution with toxic chemicals and pesticides		<i>Use of chemicals and toxic compounds is regulated</i>
People & Coastal Communities			
Human Rights	Human rights & decent work conditions		<i>Low risk for human rights violations</i>
Workers' Safety	Exposure to health & safety hazards		<i>Low risk for unsafe working conditions</i>
Community Inclusiveness	Fair value chain participation by communities		<i>Family owned farm / limited community inclusiveness</i>
Animal Welfare			
Living Conditions	Husbandry system & rearing conditions		<i>High stocking density and low habitat structure</i>
Physical Stress	Stress & injuries during rearing and harvesting		<i>Moderate risk for stress during rearing, low during harvesting</i>
Humane Slaughter	Pain & suffering during slaughter		<i>Effective stunning at harvesting before slaughter</i>



BLUEYOU OCEAN IMPACT TRACKER

METHODOLOGY FOR ASSESSMENT AND SCORING GUIDEPOST

FARMED SEAFOOD

Version 1.0 Oct 2023

Assessment Date: December 26, 2023
 Assessor Name: Jonas Walker
 Unit of Origin Code: A-SAL-1

Species Name: Atlantic Salmon (*Salmo salar*)
 Country of Origin: Norway
 Farming Area: Troms County, Northern Norway
 Origin Type: Aquaculture
 Farming Method: Marine Net Pens, ASC Certified
 Operation Type: Family owned Operation

LIFE ON PLANET & NATURAL RESOURCES

Impact Dimension	Parameter for Evaluation	Assesment Indicators and Metrics	Scoring Guidepost			Score	Comments and Remarks for Assessment
			1 Negative impact / Critical performance	2 Moderate impact / Acceptable performance	3 Positive impact / Good performance		
Climate Change Impact	LCA-based carbon footprint	Carbon Footprint in Kg CO ₂ Eq. / kg final product on POD in market	High footprint (> 8.0 kg CO ₂ eq./kg product at store)	Moderate footprint [3.0 - 8.0 kg CO ₂ eq./kg product at store]	Low footprint (< 3.0 kg CO ₂ eq./kg product at store)	2	PCF 4.43 kg Co2 eq / kg product at store
Ecosystems & Biodiversity	Biospere integrity and biodiversity loss	Biodiversity loss, ETP impact, wildlife interaction	Critical impact on habitats, wildlife and biodiversity through farming and feed inputs	Moderate impact on biodiversity and habitats through farming and feed inputs	Low impact or nature-positive food system	2	The farms are ASC certified and a thorough ecosystem impact assessment is conducted in the certification process. Further, the ASC encompasses strict ecosystem criteria which have to be met in order to be certified. Nevertheless, Salmon farming and mostly the high input of nutrients in the marine ecosystem through feed application has been associated with negative impacts on the environment, especially the benthos.
Deforestation	Land system change due to deforestation	Deforestation of land for agriculture or aquaculture	Critical deforestation happening / no restoration efforts	Risk for deforestation (feed crops) / no restoration	No deforestation risks / active restoration ongoing	2	There is no direct deforestation risk due to the aquaculture operation. Within the ASC Feed Standard, indirect deforestation through feed ingredients is addressed and producers must commit to transition to deforestation-free feed ingredients until January 2025 (e.g. soy).
Freshwater Use	Depletion of freshwater	Use of freshwater and risk of depletion (feed and farming)	High consumption and critical risk for depletion	Moderate consumption / freshwater no depletion risk	No use of freshwater	2	No freshwater is used during grow-out and minimal freshwater might be used during hatchery operation. However, freshwater is used for the production of the crops used for the feed.
Eutrophication	Discharge of critical nutrients (N,P)	Risk of eutrophication in feed production and aquaculture	High risk (agriculture and aquaculture)	Moderate risk	Low / No Risk	2	Feed is used during grow-out. The ASC Standard encompasses strict criteria on water quality and effluent management and monitoring as well as setting upper limits for N and P loads for effluent waters.
Toxic Compounds	Pollution with chemicals and pesticides	Use of chemicals, pesticides, antibiotics and toxic compounds	Frequent and continuous use as part of SOP	Moderate and occasional use under GAP	No use as part of SOP	2	Inorganic fertilizer, medication and further chemical substances are allowed in the production period, however, the ASC has a stringent set of criteria which regulates the use of chemical substances and criteria which aim to minimize their use during grow-out

PEOPLE & COASTAL COMMUNITIES

Human Rights & Work Conditions	Human rights and decent work conditions	Risk for human right abuse and critical work conditions	High risk	Moderate risk	Low risk	3	The farms are ASC-certified and adhere to the social criteria encompassed in the ASC standard. The ASC set of social criteria ensures basic social compliance along the supply chain but is less thorough than specific social certifications (ex. Fair Trade USA). However, based on the country of origin, the risk of social non-compliance can be deemed low. Additionally, Blueyou has visited the operation and could not identify any risk of social non-compliance
Workers' Safety	Safe working conditons along supply chain	Risk for critical working conditions on farming and processing level	High risk	Moderate risk	Low risk	3	Based on the country of origin workers' safety is deemed high
Community Inclusiveness	Fair value and participation of communities	Level of involvement of local community in farming and value chain	No / Low	Moderate	High	2	Salmon farming operation is owned and managed by family-based company. Community inclusiveness is limited, as generated value contributes to a few families only. Externalities are carried by all taxpayers.

ANIMAL WELFARE

Living Conditions & Quality of Life	Husbandry system which respects natural behaviour	Husbandry systems, intensity level, natural environment	Inappropriate husbandry, High risk for overcrowding and prolonged stress	Species appropriate husbandry, moderate crowding	Natural environment, low densities	1	The living conditions for the salmon in the respective aquaculture systems are deemed improvable. This is mostly due to the high stocking densities and the low habitat structure within the net pens.
Capture, Harvesting & Handling	Reducing stress during harvesting & handling	Risk of exposure to prolonged stress, pain and injuries	High risk for prolonged stress, pain and multiple injuries	Moderate exposure to stress and improved handling	Optimized handling to reduce stress to minimum	2	The salmon are transferred to land by well-boat and let to rest for one full day before integration into processing.
Stunning & Humane Slaughter	Stunning before slaughtering	Vertebrate and Decapod Crustacean are stunned prior to killing	No stunning and prolonged suffering prior to death	No stunning but moderate risk for prolonged suffering	Effective stunning in place within minimal time	3	Salmon are stunned before killing through bleeding. Stunning is supervised and repeated if not successful