Policy on circular economy and responsible waste management

Blue foods and especially farmed salmon are playing a crucial role in meeting the world's growing demand for proteins, contributing to dietary shifts from land to ocean-based animal proteins, economic development and employment opportunities. Aquaculture is intrinsically dependent on a healthy environment and considering the increasing pressure on natural resources, it is fundamental that commercial activities focus on moving from a linear to a circular use of resources.

The importance of circularity

We use circularity as a concept that promotes a closed-loop system where waste is seen as valuable resources. Moving from a finite and linear model to a circular approach is making our business more resilient and more resource efficient, benefiting the environment and avoiding unnecessary costs. Circularity is already embedded in our sustainability strategy, Leading the Blue Revolution Plan, Mowi-Sustainability-Strategy_March_23.pdf. It is also part of our operational reality by upcycling by-products from our processing plants, sludge from our freshwater operations and through our responsible solid waste management which promotes reduction, reusability, and recyclability.

Risks and Opportunities related with circularity and waste management

Risks related with not embracing a circular economy are increased pollution and increased operational costs. Increased environmental pollution can originate when waste is not managed responsibly. Operational costs can increase when more resources are needed, and more waste is generated that needs to be handled and disposed. Such risks can have both a financial and/or reputation risk for the company.

Adopting circularity in aquaculture offers several opportunities, including resource efficiency through the recycling of nutrients as well as waste valorization. Circular practices also contribute to climate resilience, promote innovation in feed production, engage local communities positively, differentiate products in the market, and stimulate research and development. Furthermore, implementing circular methods and practices in aquaculture can help prepare for new regulatory expectations (e.g. Extended Producer Responsibility, European Green Deal, EU's New Circular Action Plan, Corporate Sustainability Reporting Directive) and policies as well as support the alignment with operating license requirements. These impacts have positive ripple effects both up and downstream to our operations, thereby benefiting our supply chain as well.

Governance

The Board of Directors take overall accountability and oversight of all risks and opportunities, including those related to the circular economy. Mowi's sustainability strategy, *Leading the Blue Revolution Plan*, includes several sustainability programs which address circular economy: responsible plastic use (reusing and recycling plastic packaging and farming equipment), freshwater stewardship (sludge), efficient and sustainable fish feed (by-products) and responsible waste management (solid waste and plastic).

The integration of Mowi's sustainability strategy, *Leading the Blue Revolution Plan,* into our business strategy is ensured by the Group Management Team, including a Chief Sustainability Officer (CSO). The management team and Mowi's global sustainability networks have an oversight of the group's targets and actions towards a more circular economy and are committed to comply with prevailing environmental laws, regulations and relevant standards and work to continuously improve our environmental management system to reduce our environmental impact.

This policy was developed in alignment with the requirements from the Corporate Sustainability Reporting Directive (CSRD) from the EU as well as with our internal and external stakeholder management processes. For more information see our Sustainability governance Policy 230519-Mowi-Sustainability-Governance-Policy.pdf

We engage with sustainability benchmark developers (e.g., Coller FAIRR's Index, Seafood Stewardship Index) and adhere to a Code of Conduct for stakeholder interactions. Our publicly available Community Engagement policy outlines our approach in the local communities and Indigenous People, where environmental stewardship and potential impact is addressed. The annual report details our stakeholder interactions, including trade association memberships.

Scope

The scope of this policy is global and includes all business areas: feed, farming and sales and marketing.

In our own operations, circular approach focuses on three product groups, namely solid waste (including plastics), sludge and by-products. This policy describes each of these circular product groups along our value chain (see illustration below).

In our supply chain, we run an environmental due diligence program with our suppliers where circularity is considered through responsible waste management practices.

Solid waste and plastic management

Mowi generates solid waste (including plastic waste) as a result of our feed, farming, and processing operations. Such waste is part of our scope 3 emissions and if not managed responsible can pose a direct threat to nature. Plastic waste, a component of our solid waste, primarily originates from plastic equipment used in farming operations, such as nets and feeding pipes. Additionally, plastic packaging from our final consumer products adds to our downstream plastic footprint. Effective solid and plastic waste management offer circular, environmental and financial opportunities through e.g. upcycling of nets and feeding pipes into swimwear, carpets or garden furniture. (Please see also Mowi's Policy on plastic use and plastic waste management 230530-Mowi-Plastic-Policy.pdf)

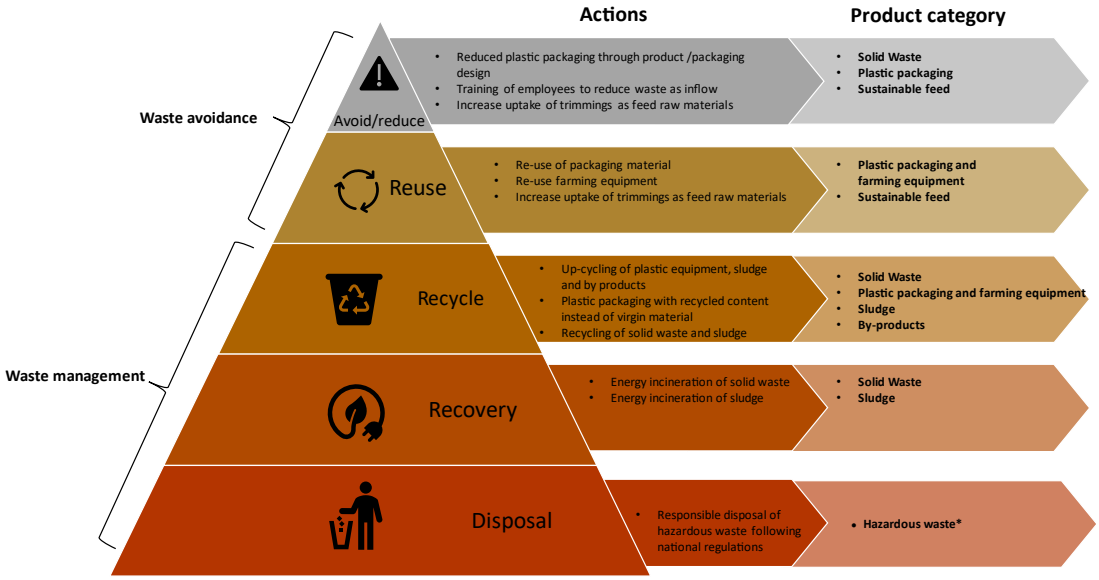
Sludge management

Mowi manages sludge generated from our salmon farming units as a crucial aspect of responsible aquaculture. Disposal risks include negative impacts on water quality, eutrophication, and habitat destruction, with non-compliance and reputational risks as concerns. However, there's potential for environmental and financial opportunities by selling or reusing sludge for biogas production or as fertilizer. In addition, we are addressing the organic loading impact of our marine sludge through national benthic surveys, such as the MOM-B analysis in Norway. (please see also Mowi's policy on biodiversity 230310-Biodiversity-Policy.pdf (mowi.com))

By-product upcycling and management

Mowi produces by-products such as offcuts in our processing activities which would be considered food waste if not used for other applications such as non-salmon aquaculture diets and pet food. In addition to reducing food waste, the upcycling of these by-products represent a recapture of the fishmeal and fish oil used as marine raw materials. Such feed raw materials are therefore used not only to produce our salmon but also become part of non-salmon aquaculture diets and pet food. Mowi is well positioned to capture the value of such by-products through Mowi Nutrition (Sustainable and high quality products for pets. – Mowi Nutrition (en)). Such upcycling contributes to achieving Fish in-Fish out

(FIFO) as low as 0.65, making farmed salmon a net protein producer. (More information can be found in Mowi's Integrated Annual Report [Mowi-Integrated-Annual-Report-2022.pdf])



*All hazardous waste is handled according to national regulations. In addition, Mowi is actively engaging with waste handlers and working towards reducing the production of hazardous waste from the very beginning. As an example, in Norway, we have a national agreement with one waste handler, to ensure that all materials that are practically reuseable or recyclable are sorted and managed in the appropriate waste streams.

Certifications

Mowi aims to have 100% of our yearly harvest volumes sustainably certified by a GSSI (Global Sustainable Seafood Initiative) recognized standard including the Aquaculture Stewardship Council (ASC), Best Aquaculture Practices (BAP), or Global GAP. All these certifications recognize and implement circularity and circular practices in their standards by promoting responsible feed sourcing, encouraging integrated crop and pest management, waste management and biodiversity protection.

Ambition and Targets

Mowi has implemented specific targets and strategies to pave the way for a more circular economy in aquaculture both in our own operations and in our supply chain.

In our own operations, we have committed to zero waste to landfill and to upcycle by-products from our processing plants and sludge from our freshwater farming operations. The table below presents an overview of Mowi's targets and strategies related to circularity, aligned with the guidelines from the Corporate Sustainability Reporting Directive (CSRD), whether and how these targets relate to resource inflows, such as plastic for product packaging and transportation, and relevant outflows, such as sludge production from farming operations.

Topic	Target	Strategy	Relation to inflows/outflows*	Waste hierarchy layer
Plastic Farming equipment	By 2023, plastic farming equipment (nets and feeding pipes) is reused or recycled.	Up-cycling of nets and feeding pipes to swimwear, carpets or garden furniture. Employee training to improve waste sorting.	Inflow Increase of circular design. Increase of circular material use rate.	 Reuse & recycle
Plastic Packaging	By 2025, 100% of our plastic packaging will be reusable, recyclable or compostable.	Focus on packaging re-design, composition, simplification, and light-weighting.	Outflow Increase reusability, recyclability or composting of plastic packaging at the end of life cycle. Waste management, including preparation for proper treatment.	 Reuse, Recycle & Avoid
	By 2025, at least 25% of plastic packaging will come from recycled plastic content.		Inflow Increase of circular material use rate. Minimisation of virgin non-renewable raw material.	 Recycle
Solid waste	By 2025, zero waste to landfill at our processing plants	Focus on reducing, reusing, recycling and recovering waste. Focus on packaging design. Focus on enabling a circular economy by upcycling waste. Employee training to improve waste sorting.	Outflow Waste management, including preparation for proper treatment;	 Reuse, Recycle, Recovery & Avoid
Sludge	Upcycle sludge from freshwater to compost or biogas production	Recapturing and reuse – e.g. as input material for biogas production or as fertilizer for agricultural production.	Outflow Increase of circular material use rate. Waste management, including preparation for proper treatment.	 Reuse, Recycle & Recovery
By-products	0% food waste	Upcycling of by-products originating from our processing plants to FM and FO used in (non-salmon) aquaculture and pet food.	Outflow Increase of circular material use rate. Waste management, including preparation for proper treatment.	 Reuse & Recycle
Supply chain	100% deforestation-free soy	Maintain our zero-deforestation sourcing of soy protein.	Inflow Reversal of the depletion of the stock of renewable resources.	 Avoid
	Inclusion of 10-15% ingredients from emerging feed raw materials.	Increase flexibility of our feed raw material basket while reducing dependency of marine raw materials.	Inflow Reversal of the depletion of the stock of renewable resources.	 Avoid
	100% traceability of feed raw materials.	Ensure full traceability of our feed raw materials.	Inflow Reversal of the depletion of the stock of renewable resources.	 Avoid
	100% of marine raw materials are certified (Marin Trust or equivalent)	Adhere to sustainable sourcing of marine raw materials. Increase uptake of trimmings Use of novel feed raw materials.	Inflow Reversal of the depletion of the stock of renewable resources.	 Reuse & Avoid
	Towards lower FCR	Optimize feed composition and formulation to optimize FCR.	Inflow Reversal of the depletion of the stock of renewable resources.	 Avoid
	Towards lower carbon footprint of feed raw materials	Optimize feed formulation to reduce carbon footprint.	Inflow Reversal of the depletion of the stock of renewable resources.	 Avoid
	100% of feed raw material suppliers screened on environmental due diligence which includes responsible waste management	Encourage suppliers to implement circular and responsible waste management practices in our supply chain.	Inflow and Outflow Increase of circular material use rate. Reversal of the depletion of the stock of renewable resources. Waste management, including preparation for proper treatment.	 Reuse, Recycle & Avoid

**CSRD – ESRS E 5-3: Target relation to inflows/outflows:*
(a) the increase of circular design (including for instance product design);
(b) the increase of circular material use rate;
(c) the minimisation of virgin non-renewable raw material with possibly targets for virgin nonrenewable raw material and targets for virgin renewable raw material;
(d) the reversal of the depletion of the stock of renewable resources;
(e) the waste management, including preparation for proper treatment; and
(f) other targets

Supply chain

To address circularity in Mowi' supply chain, we have implemented an environmental due diligence process for our suppliers. This process consists of applying global indices which assess environmental risk and a Mowi questionnaire which includes waste management (elimination of waste to landfill, wastewater treatment and responsible handling of hazardous waste, sustainable sourcing of feed raw materials).

Furthermore, sustainable sourcing of feed raw materials is key in the journey towards circularity. Therefore, Mowi's aims to source feed raw materials sustainably (230519-Mowi-Sustainable-Salmon-Feed-Policy.pdf) and to continue testing novel feed raw materials in our feed formulation (230519-Mowi-Emerging-Feed-Raw-Materials-Policy.pdf). We continue to work closely with our procurement team to provide sustainability training, within the context of circular economy principles, to increase focus and awareness of circularity.

We work with our feed raw material suppliers, through supplier engagement events including training, to require nutrient management plans.

May 2024