

Haarlem, 25th September 2023

Aquatic Life
9710 Klingerman St.
South El Monte,
CA 91733

Subject: Response to Aquatic Life comments MEL Japan Public Consultation

Dear Tessa,

Many thanks for taking the time to provide your comments on the GSSI Benchmark Report for MEL Japan.

GSSI is committed to a transparent benchmark process with opportunity for engagement and comments. Following the consultation, GSSI's detailed response to your comments by component number raised in relation to the GSSI Benchmark of MEL Japan is set out below.

▪ **Guidelines:**

The response to each of the comments is structured as follows:

1. Description of the component: Essential or Supplementary and the corresponded numeration
2. Text of the Component
3. Submitted Comment
4. Answer from GSSI
5. Conclusion [old part in black] [new part in blue]
6. References [old part in black] [new part in blue]

The answers to the comments and conclusions of the components make use of the GSSI benchmark language, including the following acronyms:

IE: Independent Expert
EC: Essential Component
SC: Supplementary Component
BC: Benchmark Committee
MOCA: Monitoring of Continued Alignment

■ Section C – Aquaculture

Essential Component C.1.01

The standard requires that the decision to treat with antimicrobial agents, and their subsequent application, is consistent with the Principles for Responsible & Prudent Use of Antimicrobial Agents in Aquatic Animals and other guidance of the OIE Aquatic Animal Health Code i.e., by the aquatic animal health professional or other relevant competent authority and in response to a diagnosed disease; see Articles 6.2.7 and 6.2.8 of the 2015 Aquatic Animal Health Code).

■ Aquatic Life comment

While we commend the rigorous evaluation employed by GSSI, there is one crucial component to the ratings methodology that commands further development and consideration - aquatic animal welfare.

It is imperative that GSSI recognize aquatic animal welfare as a vital intersection between all other rating categories. We would like to take this feedback opportunity to outline the significance behind aquatic animal welfare in aquaculture facilities and how it relates to and has effects on feed resources, environmental impacts, and management regulations. Welfare of all farmed aquatic animals should be given ample consideration and respect within the aquaculture industry. Their treatment in farm systems must be rigorously reassessed with a focus on the individual qualitative experience of these animals.

We recommend adding the following questions/considerations to Section C 1

■ GSSI response

Comments from Aquatic Life Institute relate to the GSSI Global Benchmark Tool Framework, which is not the subject of the public consultation on alignment of the MEL Japan certification program with the GSSI Benchmark Tool.

While GSSI appreciates Aquatic Life Institute's review and attention to the importance of animal welfare, MEL Japan is reviewed against the current version of the Global Benchmark Tool (version 2.0, 2021). Considerations outlined by the Aquatic Life Institute do not fall within the scope of Component C.1.01 and does therefore not impact MEL Japan's status of alignment with C.1.01. Aquatic animal welfare is considered indirectly by the GSSI Benchmark Tool in Essential Components relating to maintaining suitable environmental conditions (C.1.03), early detection of disease (C.1.05), operational fish health management practices (C.1.07), and maintaining good culture conditions (C.3.01).

Conclusion on GSSI Essential Component C.1.01

Conclusion: *The MEL Aquaculture Management Standard is in alignment because it includes the criterion 2.3 that requires that, in the case of disease outbreaks, aquatic animals shall be treated in accordance with applicable laws and regulations.*

It includes the standards 2.3.2, 2.3.3 and 2.3.4 that require that;

- Aquaculture farmers treat diseases in accordance with the diagnosis and decision on treatment under the supervision of Fish Epidemic Prevention Officers (2.3.2),*
- Aquaculture drugs be used in accordance with the Act on Securing Quality, Efficacy and Safety of Pharmaceuticals, Medical Devices, Regenerative and Cellular Therapy Products, Gene Therapy Products, and Cosmetics (Act No. 145 of 1960) and other relevant regulations, and aquaculture farmers establish procedures for drug usage to minimize any impact on the environment (2.3.3), and*
- Antimicrobial agents be used in accordance with the Principles for Responsible and Prudent Use of Antimicrobial Agents in Aquatic Animals of the OIE Aquatic Animal Health Code (2.3.4)."*

REFERENCES

1. Aquaculture Management Standard V2.0
2. Aquaculture Management Standard Guidelines for Auditors - Indicators of Conformity - Version 2.0

Essential Component C.1.02

The standard requires that workers with responsibilities in aquatic animal husbandry have been adequately trained and are aware of their responsibilities in aquatic animal health management practices.

■ Aquatic Life comment

1. Does the standard require an acceptable stocking density according to the best available science based evidence for the species/lifestage being farmed that takes animal welfare into account?

■ GSSI response

Comments appear to relate to GSSI's Global Benchmark Tool's Framework, which is not the subject of the MEL Japan Public Consultation.

While GSSI appreciates Aquatic Life Institute's review and attention to the importance of animal welfare, MEL Japan is reviewed against the current version of the Global Benchmark Tool (version 2.0, 2021). Considerations outlined by the Aquatic Life Institute do not fall within the scope of Essential Component C.1.02, which relates to worker training, and does therefore not impact MEL Japan's status of alignment with C.1.02.

The GSSI Benchmark Tool includes an Essential Component (C.1.03) that requires that aquatic animals are kept under farming conditions suitable for the species being raised. Given the broad diversity of aquaculture species and production density, the Benchmark Tool is not prescriptive, nor does it require schemes seeking recognition by GSSI to be prescriptive with respect to stocking density or other management practices related to animal welfare.

Conclusion on GSSI Essential Component C.1.02

Conclusion: *The MEL Aquaculture Management Standard is in alignment because it includes the standard 2.3.5 that requires that aquaculture workers be trained, educated, and competent to manage aquatic animal health. Workers must have high awareness of these matters and act responsibly. Workers are required to attend training sessions organized by the local government and others. A record of training must be kept.*

REFERENCES

1. Aquaculture Management Standard V2.0
2. Aquaculture Management Standard Guidelines for Auditors - Indicators of Conformity - Version 2.0

Essential Component C.1.03

The standard requires that aquatic animals are kept under farming conditions suitable for the species being raised.

■ Aquatic Life comment

2. Does the standard have measures in place to appropriately monitor and correct all critical water quality parameters, according to species, including but not limited to: dissolved oxygen (DO), temperature, carbon dioxide, pH, turbidity, carbonate and total hardness, ammonia, salinity, nitrite, nitrate, phosphorus and dissolved metals in order to ensure optimal water quality?

■ GSSI response

Following the comments by Aquatic Life Institute, no changes were made to the conclusion on MEL's alignment with C1.03. In the GSSI Benchmark Tool, there is no prescriptive requirement for monitoring water quality as outlined in the Aquatic Life comment. The objective of this requirement is to verify that the species is being farmed in the proper environment to maintain its health. Due to the very broad nature of this Essential Component, specific guidance is not provided. However, among possible expected evidence for alignment is a requirement for on-farm water quality monitoring. MEL 2.1.3 requires such monitoring of water quality conditions at aquaculture production sites. Water quality must remain within national Water Quality Standards for Fisheries (MEL 2.1.1).

Conclusion on GSSI Essential Component C.1.03

Conclusion: *The MEL Aquaculture Management Standard is in alignment because it includes the criterion 2.1 that requires that aquatic animals be managed in a suitable environment to minimize stress on them, and precautionary measures against diseases be planned and executed.*

It includes the standards 2.1.1, 2.1.2, 2.1.3 and 2.1.4 that require that;

- Aquaculture farmers use proper water in accordance with Water Quality Standards for Fisheries based on the type of target species and their life stage (2.1.1),*
- Aquaculture farmers provide sufficient cage space and a suitable rearing density to maintain satisfactory environmental conditions at the growing site (2.1.2),*
- Aquaculture farmers monitor the environmental conditions of the farming site by using proper indicators. Appropriate procedures shall be established for dealing with deteriorating conditions (2.1.3), and*
- Aquaculture farmers use suitable feed matched to the nutritional requirements of aquatic animals, with proper quantities for maintaining their healthy condition (2.1.4).*

REFERENCES

1. Aquaculture Management Standard V2.0
2. Aquaculture Management Standard Guidelines for Auditors - Indicators of Conformity - Version 2.0

Essential Component C.1.04

The standard requires the aquaculture facility to establish, implement and maintain appropriate procedures to respond to disease outbreaks, which includes the ability to quarantine the aquatic animal where feasible.

▪ **Aquatic Life comment**

3. Does the standard require a universal stunning before slaughter method implemented, and is this method acceptable in terms of welfare for the specific species being farmed?

▪ **GSSI response**

Following comments by Aquatic Life Institute, no changes were made to the conclusion on MEL's alignment. This GSSI Essential Component relates to responding to disease outbreaks, not stunning or slaughter. The scope of the GSSI Benchmark Tool considers only production, not slaughter, which is normally the domain of processing. Therefore, the comment does not relate to the scope of the Essential Components in this Section and cannot be considered in the context of the MEL Japan Benchmark Process.

Conclusion on GSSI Essential Component C.1.04

Conclusion: *The MEL Aquaculture Management Standard is in alignment because it includes the criterion 2.3 that, in the case of disease outbreak, requires that the aquatic animals be treated in accordance with the applicable laws and regulations.*

It includes the standards 2.3.1, 2.3.2 and 2.3.4 that require that;

- *Aquaculture farmers establish and implement procedures for responding to disease (2.3.1),*
- *Aquaculture farmers treat diseases in accordance with the diagnosis and decision on treatment under the supervision of Fish Epidemic Prevention Officers (2.3.2), and*
- *Antimicrobial agents be used in accordance with the Principles for Responsible and Prudent Use of Antimicrobial Agents in Aquatic Animals of the OIE Aquatic Animal Health Code 2.3.4).*

REFERENCES

1. Aquaculture Management Standard V2.0
2. Aquaculture Management Standard Guidelines for Auditors - Indicators of Conformity - Version 2.0

Essential Component C.1.05

The standard requires the aquaculture facility to establish, implement and maintain appropriate procedures and/or systems for the early detection of aquatic animal health issues, which include routine monitoring of stocks and the environment.

▪ **Aquatic Life comment**

4. Is the standard considering and/or researching ways to enrich the environment of the species being farmed?

▪ **GSSI response**

Following comments by Aquatic Life Institute, no changes were made to the conclusion on MEL's alignment. This GSSI Essential Component addresses early detection of aquatic animal diseases, not environmental enrichment. Again, as mentioned previously, the GSSI Benchmark Tool is not prescriptive, here concerning matters related to aquatic animal welfare. The focus is on maintaining suitable culture conditions in a general way.

Conclusion on GSSI Essential Component C.1.05

Conclusion: *The MEL Aquaculture Management Standard is in alignment because it includes the criterion 2.1 that requires that be managed under the suitable environment to minimize stress on them and the precautionary measures against diseases shall be planned and executed.*

It includes the standards 2.1.1, 2.1.2 and 2.1.3 that require that;

- Aquaculture farmers use proper water in accordance with Water Quality Standards for Fisheries based on the type of target species and their life stage (2.1.1),*
- Aquaculture farmers shall provide sufficient cage space and a suitable rearing density to maintain satisfactory environmental conditions at the growing site (2.1.2), and*
- Aquaculture farmers shall monitor the environmental conditions of the farming site by using proper indicators. Appropriate procedures shall be established for dealing with deteriorating conditions (2.1.3).*

It also includes the criterion 2.2 that requires that the aquatic animals be maintained under appropriate management to prevent disease outbreak and spread, and the standard 2.2.1 that requires aquaculture farmers monitor the health condition of aquatic animals regularly with appropriate indicators."

REFERENCES

1. Aquaculture Management Standard V2.0
2. Aquaculture Management Standard Guidelines for Auditors - Indicators of Conformity - Version 2.0

Essential Component C.5.02

The standard prohibits the use of any lethal predator control techniques on endangered species. Exceptions for worker safety and where euthanization is an act of mercy are acceptable and expected.

■ Aquatic Life comment

GSSI should give additional consideration to the 'Feed' evaluation section as well.

Farmed fish must be fed a diet appropriate to their individual species needs; therefore, the composition of feed used is important for both fish health and fish welfare. A fish's diet should consist of quantities of energy and nutrients sufficient for a fish's physiology and growth, delivered in a form that is both accessible and digestible (Ashley 2007; Waagbø et al. 2013; Yavuzcan Yildiz et al. 2017; Hixson 2014). An appropriate diet can improve body condition, facilitate resistance to disease, and aid a fish's ability to respond to stress; conversely, an inappropriate diet can cause a fish to suffer from hunger and numerous health issues (Ashley 2007; Waagbø et al. 2013; Hixson 2014).

Aquaculture feed also has a major impact on fish and aquatic animals elsewhere in the supply chain. One quarter of the global catch of wild fish is currently used for fish feed (T. Cashion et al. 2017). This equates to over one trillion individual aquatic animals being caught and killed for use in fish feed each year (Borthwick, Gonzalez, and Redaro 2021). Furthermore, aquaculture feed imposes a substantial impact on the environment - one study estimated that fisheries for fish meal and fish oil (FMFO) emitted the equivalent of 4.6 million tonnes of carbon dioxide in 2014 and exploited up to 4% of the area of some marine ecosystems (Tim Cashion, Tyedmers, and Parker 2017). Considering that aquaculture feed is itself an intermediate product, this is a significant use of environmental resources. Clearly, feed represents a major issue for both animal welfare and environmental sustainability.

There are several avenues available to reduce the negative welfare impacts of aquaculture feed. Most notably, feed compositions can be altered to substitute a substantial proportion of fish meal with plant-based ingredients, often without compromising performance, health, and product quality of fish (Waagbø et al. 2013; Hixson 2014; Turchini, Torstensen, and Ng 2009). However, when making such changes, the specific dietary needs of the fish should be considered to avoid health issues. Feed mixes can also be produced using byproducts and off-cuts from human consumption (T. Cashion et al. 2017). Other avenues include shifting aquaculture operations towards non-carnivorous species to reduce the need for animal ingredients in feed (Froehlich et al. 2018) and implementing technologies that automatically adjust feed levels, thereby reducing wasted feed (Hixson 2014).

■ **GSSI response**

Following comments by Aquatic Life Institute, no changes were made to the conclusion on MEL's alignment. GSSI Essential Component C.5.02 addresses predator control on endangered species, not feed composition. Therefore, the comment cannot be considered in the context of this component. The subject of concern expressed in the comment by Aquatic Life is addressed in GSSI Essential Components C.4.01-C.4.08. MEL Japan is in alignment with all GSSI Essential Components related to the Feed Use Performance Area.

Conclusion on GSSI Essential Component C.5.02

Conclusion: *The MEL Aquaculture Management Standard is in alignment because it includes the standard 4.4.2 that requires that, in case a hazardous organism belongs to an endangered species, the species be eliminated through non-lethal measures, except when there is concern about the safety of workers or when priority is given to euthanasia of a moribund organism.*

REFERENCES

1. Aquaculture Management Standard V2.0
2. Aquaculture Management Standard Guidelines for Auditors - Indicators of Conformity - Version 2.0

Essential Component C.5.03

The standard requires that in areas where damage of sensitive habitats has occurred previously, and where restoration is possible and effective; restoration efforts will or have resulted in a meaningful amount of restored habitat; either through direct on-farm restoration or by an off-farm offsetting approach. Grandfathering of historical losses is allowed.

■ **Aquatic Life comment**

The standard being evaluated should have protocols in place limiting the use of fishmeal and fish oil (where appropriate and accessible), utilize sustainable alternatives, and prohibit the use of insects as a primary ingredient in aquafeed.

■ **GSSI response**

Following comments by Aquatic Life Institute, no changes were made to the conclusion on MEL's alignment. This GSSI Essential Component addresses a requirement for habitat restoration associated with the construction of aquaculture sites, not restrictions on the use of fishmeal and fish oil. Therefore, the comment cannot be considered in the context of this component. However, limitations and restrictions on the use of fishmeal and fish oil are addressed in GSSI Essential Components C.4.01-C.4.04 and MEL Japan is in alignment with all of these.

Conclusion on GSSI Essential Component C.5.03

Conclusion: *The MEL Aquaculture Management Standard is in alignment because it includes the criterion 4.4 that requires that aquaculture be operated properly to minimize any impacts on the aquaculture sites and surrounding environment. It also includes the standard 4.4.1 that requires that, in case sensitive habitat is identified, recovery of resources be carried out.*

The indicators 4.4.1 A and 4.4.1 B require that;

- The area of the aquaculture operation not be, or not be adjacent to, a habitat of endangered species (4.4.1 A), and*
- If the area of the aquaculture operation or its surrounding area be or be adjacent to a habitat of endangered species, proper measures be taken to prevent impact on the habitat (4.4.1 B).*

REFERENCES

1. Aquaculture Management Standard V2.0
2. Aquaculture Management Standard Guidelines for Auditors - Indicators of Conformity - Version 2.0

■ Section D – Fisheries

All Components

■ Aquatic Life comment

General comments from Aquatic Life Institute: Wild capture fisheries is the last major food-producing sector that does not take animal welfare into consideration. Given the high degree of suffering that aquatic animals encounter in fisheries throughout the catch phase (capture, retrieval, onboard handling, and slaughter without stunning), and the fact that 2-3 TRILLION animals are caught in the wild each year, we urge for MEL Japan and GSSI to take into consideration pillars of animal welfare into standards and benchmarks.

In Japan, careful capture, retrieval and handling of aquatic animals is only practiced in high-value fisheries where animals are retrieved individually, and where product quality is crucial, such as in sashimi-grade tuna fisheries. However, this approach should be replicated across all fishing gears and methods.

This includes more gentle catch methods via 1) reducing the duration of capture and size of capture; 2) using species and ecosystem-specific gear; and 3) phasing out the use of live bait. More gentle retrieval methods include: 1) pump fish onboard or surface fish slowly to avoid barotrauma; 2) using descending devices for discarded deep water animals and 3) ban gaffing. Appropriate onboard handling includes: 1) minimize the time spent out of water; 2) prohibit the removal of animal body parts; and 3) live capture should be stored in species-specific holding spaces. And importantly, aquatic animals should be stunned prior to slaughter. This means that they should be rendered fully unconscious and remain unconscious until slaughtered. Ice slurry should be banned.

In terms of bycatch and ghost gear, we recommend 1) modifying gear to improve selectivity and 2) using biodegradable elements in commercial fishing gear.

For more details please see our full report:

<https://static1.squarespace.com/static/5e4ff4ae6791c303cbd43f67/t/623a013263d3f057c9819326/1647968574686/Key+Welfare+Recommendations+for+Marine+Capture+Fisheries++%281%29.pdf>

■ **GSSI response**

Following comments by Aquatic Life Institute, no changes were made to the conclusion on MEL's alignment. GSSI appreciates the Aquatic Life Institute's input on the matter of animal welfare in wild capture fisheries. Suggestions, including modifications to capture, handling, and slaughter processes, are noted.

However, the focus of this consultation is on the alignment of MEL Japan's certification scheme with the Global Benchmark Tool (version 2.0, 2021) set by GSSI. The points raised in the comments, while significant for broader animal welfare considerations, do not directly relate to the specifics of Component D-fisheries under assessment.

Given this, your feedback does not impact MEL Japan's status of alignment with Component D-fisheries. We encourage Aquatic Life to provide comments specifically related to the certification scheme's alignment with GSSI's requirements.

For broader concerns regarding fisheries' animal welfare, GSSI recommends addressing these directly to relevant benchmark and standard setting organizations during their revision processes.

Conclusion on GSSI Section D All Components

Conclusion:

Comment refers to all components therefore no specific conclusion is applicable.

REFERENCES

1. n/a
2. n/a