

FRESHWATER TROUT AQUACULTURE DIALOGUE

Draft Criteria

(Notes from May 27-28, 2009 Dialogue Meeting)

INTRODUCTION

These draft impacts, principles and criteria represent the work of the 2nd Freshwater Trout Aquaculture Dialogue (FTAD) meeting, held May 27 & 28, 2009 in Thorshavn, Faroe Islands. The criteria are presented as a work in progress that builds off the impacts and principles identified in the 1st FTAD meeting in November 2008. The next step for the dialogue process is to identify indicators for these criteria, followed by standards for each indicator. All the work remains in draft form and open to revision.

Principle 1: Comply with all applicable international, national and local laws and regulations

Criteria:

- Operate within the legal framework of applicable international, national and local laws and regulations

Notes: Question whether it's necessary to write "international, national and local" as they are implied in "applicable." Does international include, for example, EU regulations implemented within EU? What should be the approach when EU law conflicts with national law – what law trumps? Additionally, what is the appropriate resolution when two regulations conflict each other – agricultural standards versus water standards? Finally, what is the best stance to adopt when permits are delayed by appeals – should there be a time limit, or no time limit?

Principle 2: Conserve local habitat and biodiversity

This Principle encompasses the impacts of Habitat Conversion, Escapees and Predator Control

Criteria:

- Indigenous flora and fauna
- High-value ecosystems (determining parameters for farm site locations)
- Predators
- Escapees (competing for habitat, genetic impact, disease transmission)

Notes: The scope of the definition of “high-value ecosystems” is not yet clear. Indicators for high-value habitat may need to be different for established farms vs new farms (grandfather clause?). Indicators for Escapees could include presence of grids, nets, bars, grills, closed systems. Genetically modified trout may be an issue that needs to be addressed with regard to escapees. Questions emerged regarding approved methods for predator control indicators (non-lethal vs lethal). Also, is it important to distinguish between predators and pests? One indicator for indigenous (flora and) fauna could be systems to prevent fish and fauna from entering the influent. Are we missing something in these criteria that looks at keeping farms away from flood-prone areas to minimize disease transmission risks (this may only be relevant in certain regions)?

Principle 3: Minimize negative effects on water resources

This Principle encompasses the impacts of Discharges and Water Use

Criteria:

- Use of water (altering natural water flow, watertable/groundwater depletion/saltwater intrusion)
- Effluent quality and load
- Impact on receiving body of water (receiving water carrying capacity/change)

Notes: Effluent indicators could be: nitrogen, phosphorus, turbidity, antibiotics, solids, oxygen saturation, chemicals, disease agents (pathogens), BODs, CODs or a nitrogen budget (probably need to prioritize this list). Questions were raised about when quality vs load is most appropriate measure. Load was defined as mass per time and quality was defined as the concentration of contents in water. How should this process deal with farms that are helping to restore degraded habitats? Suggestion, that we need specific criteria/indicators around bio-solids and indicators to deal with critical moments such as draining of pools. Nitrogen budget could be an indicator for that. Third bullet is about measuring the impact on the recipient environment, such as a lake downstream. There was some debate around whether bullet three is really different from bullet two (Effluent).

Principle 4: Proactively maintain the health and welfare of cultured fish and minimize risk of disease transmission

This Principle encompasses the impact of Fish Health/Welfare and Disease Transfer

Criteria:

- Survival and health of farmed fish
- Bio-security (disease-free eggs, hygiene (SSOP), staff capacity, traceability)
- Medical/Chemical treatment
- Water quality on site
- Care and handling (slaughtering/careful moving of fish etc)

Notes: Possible indicators for the water quality are temperature, oxygen, pH, eutrophication, benthic impacts). Questions about whether welfare should be mentioned explicitly in the principle?

Principle 5: Use resources responsibly

This Principle encompasses the impacts of Energy Efficiency, Carbon Footprint and Feed Ingredients

Criteria:

- Energy usage and carbon footprint on production site
- Feeding regime
- Source of marine raw material in feed
- Source of non-marine raw material in feed
- Use of wild fish for feed (dependency on marine protein and lipid source)

Notes: For energy, possible indicator is best available technology. How to deal with the fact that recirculation technology will always be more energy intensive than flow-through. No mention of human and equipment resources: should we? Feeding regime refers to the efficient use of feed – indicators could include Feed Conversion Ratio (FCR) and documentation/reporting of fish farm practice (effluent indicators may also address this). Source of feed ingredients concerns sustainability of harvesting raw materials. There was a debate about the value of indicators that measured the dependency on fishmeal in feed (such as “fish-in, fish-out”). Some thought it was important to set a cap and push to reduce dependency on fishmeal through a “fish-in, fish-out” indicator (FFER). Others suggested the focus should be ensuring certificates of sustainable fish harvest and sustainable vegetable protein harvest, and the standards shouldn’t take a stand on the percentage composition of

ingredients in the feed. There were some concerns about the availability of feed that would meet the future standard.

Principle 6: Be socially responsible

This Principle encompasses Social/Community impacts

Criteria:

- 1) Freedom of association and collective bargaining
- 2) Child labor
- 3) Forced, bonded or compulsory labor
- 4) Discrimination
- 5) Health and safety
- 6) Wages
- 7) Labor contracts
- 8) Conflict resolution
- 9) Working hours
- 10) Living conditions
- 11) Co-existence with other community activities

Notes: Women's Equality may need to be its own criteria, apart from discrimination. Some social criteria may be combined under a single heading such as "Labor Practices," which could encompass Wages, Labor Contracts, Working Hours and Living Conditions (for instance.) The co-existence criteria should include "Community Access" as an indicator. Other possible indicators for community co-existence may be: having an upfront impact assessment; compliance with results of any civil litigation from community.