| How various certification compare to CIWF criteria for higher animal welfare: Farmed Fish          |  |         |  |   |  |   |   |   |   |  |
|--|--|---------|--|---|--|---|---|---|---|--|
| Certification Scheme   | Logo   | Country | Species  | Is stunning prior to killing mandatory?       |  | What is the maximum stocking density? (kg/m³)   | Is genetic engineering<br>(GE), cloning or triploidy<br>prohibited?                       | What is the max. time out of water permitted? | Is killing of predators<br>prohibited?                          |  |
| CIWF - Food business - better level of animal welfare  | Food Business  | Global  | All farmed fish  | YES   | YES  | salmon: 10, trout: 15-17, sea<br>bass/bream: 13-15, pangasius: 10   | YES   | 15 sec.                                       | YES   |  |
| Best Aquaculture Practices (BAP)   | American  American  I marin  I | Global  | All farmed fish  | YES   | MAYBE <sup>1,5</sup>                             | salmon: 25+5% if KWI are good<br>other species: max based on best<br>management practices                                 | NO  | no max. <sup>1</sup>                          | NO  |  |
| Friends of the Sea (FOS)   |  | Global  | All farmed fish. Specific for<br>Salmon, trout, sea<br>bass/bream, pangasius | YES   | YES  | Salmon: <22 kg/m3;<br>Trout: >10 kg/m3 and below 60<br>kg/m3;<br>bass/bream: 20 kg/m3                                     | Genetic engineering<br>is prohibited.<br>Poliploidy and<br>cloning are not<br>prohibited. | Max 15 sec.<br>without<br>anaesthesia         | NO  |  |
| Global GAP   | GGN<br>GGN<br>AMARINA  | Global  | All farmed fish <sup>3</sup>   | YES   | MAYBE <sup>1,5</sup>                             | UNCLEAR <sup>1</sup>  | GE prohibited   | no max.                                       | NO  |  |
| Certified Quality Aquaculture (CQA)  | Specifical Security of the Control o | Ireland | All farmed fish  | YES   | YES  | UNCLEAR <sup>1</sup>  | NO  | no max.                                       | UNCLEAR <sup>1</sup>  |  |
| Aquaculture Stewardship Council (ASC)  | asc  | Global  | Salmon, trout, sea<br>bass/bream, pangasius                                  | NO  | NO   | salmon, sea bass/bream: no max.,<br>trout: MAYBE <sup>1</sup> , pangasius: 38-80  | cloning prohibited (except pangasius)   | no max.                                       | salmon and trout: YES<br>sea bass/bream: MAYBE<br>pangasius: NO |  |
| RSPCA  | RSPCA<br>ASSURED   | Global  | Salmon and trout   | YES   | YES  | Salmon: 17; Trout: Up to ongrowers<br>60 kg/m3, <100 g: 10 kg/m3, >100g:<br>17 kg/m3                                      | YES   | 15 sec.                                       | NO  |  |
| A Greener World  | SALMON<br>WELFARE<br>CERTIFIED   | Global  | Salmon <sup>3</sup>  | YES   | YES  | Salmon: 17  | YES   | 15 sec.                                       | NO  |  |
| Label rouge  | Ø.   | France  | salmon, trout, sea<br>bass/bream   | salmon: YES,<br>trout, sea bass/<br>bream: NO | salmon: YES,<br>trout, sea bass/<br>bream: MAYBE | salmon: 15-20, trout: 60-70, sea<br>bass/bream: 20  | NO  | no max.                                       | trout: NO other species:<br>YES                                 |  |
| Sistema di Qualità Nazionale<br>"Acquacoltura sostenibile"   | J. C.  | Italy   | trout, seabass/bream,<br>other   | NO  | NO   | trout (land-base): 20-35 kg/m3<br>sea bass/seabream (land-based): 40<br>kg/m3<br>seabass/seabream (seacages): 40<br>kg/m3 | Genetic engineering<br>is prohibited.<br>Poliploidy is not<br>prohibited.                 | no max.                                       | NO  |  |
| Naturland  | Noturiand  | Global  | All farmed fish  | YES   | MAYBE  | salmon; 10, trout: 15-20, salmonids<br>in net cages: 10   | GE, cloning prohibited  | no max.                                       | NO  |  |
| EU organic legislation   | 23   | EU      | All farmed fish  | YES   | YES  | salmon: 20, trout: 25, salmonids in<br>sea water: 10, sea bass/bream: 15,<br>pangasius: 10                                | GE prohibited   | no max.                                       | NO  |  |
| Soil Association   | ٥  | UK      | All farmed fish  | YES   | YES  | Salmon: 15 Trouts: 25 Seabass/seabream: 4 (ponds), 10 kg/m3   | GE, cloning prohibited  | no max.                                       | NO  |  |
| Organic food federation  | <b>©</b>   | UK      | All farmed fish  | YES   | YES  | Same as EU organic  | GE prohibited   | no max.                                       | NO  |  |
| O-label Debio  |  | Norway  | All farmed fish  | YES   | YES  | Same as EU organic  | GE prohibited   | no max.                                       | NO  |  |
| Global Animal Partnership (G.A.P.) -<br>Step 1   |  | Global  | Farmed salmon  | YES   | YES  | No, up to 17 permitted  | YES   | 10 sec. <sup>4</sup>                          | YES   |  |
| Global Animal Partnership (G.A.P.) -<br>Step 3   |  | Global  | Farmed salmon  | YES   | YES  | No, up to 17 permitted  | YES   | 10 sec. <sup>4</sup>                          | YES   |  |
| Global Animal Partnership (G.A.P.) -<br>Step 5   |  | Global  | Farmed salmon  | YES   | YES  | YES   | YES   | 10 sec.4                                      | YES   |  |
| Marine Stewardship Council (MSC)2  1 This certification does not have a clear guideline on this we | MSC September 1997   | Global  | Wild caught fish only  | NO  | NO   | N/A   | N/A   | N/A   | N/A   |  |

<sup>1</sup> This certification does not have a clear guideline on this welfare criteria. CIWF encourages these standards to be more clear regarding this subject

<sup>2</sup> MSC is a fisheries only certification scheme so only stunning and slaughter are applicable

<sup>3</sup> Global GAP and A Greener World have agreed with RSPCA to apply RSPCA welfare standards for Farmed Alantic Salmon

<sup>4</sup> If fish are handled out of water for more than 10 seconds, fish must be anesthetized using acceptable anesthetics listed in Standard 2.5.2

<sup>5</sup> This certifications accepts use of ice, ice slurry or thermal shock as stunning-killing technique for certain species. Doesn't detail which.

| Certification Scheme   | Logo   | Country | Species  | Is the prophylactic use of antibiotics prohibited? | What is the max. crowding duration?                      | Is enrichment provided?  | What is the max. fasting duration?   | Is Fish meal and<br>fish oil being<br>reduced? | Are routine mutilations permitted? | Is water<br>quality<br>monitored?                        | Is the welfare of cleaner fish assured? | Does this<br>certification meet<br>CIWF higher AW<br>criteria? |
|--|--|---------|--|--|--|--|--|--|------------------------------------|--|---|--|
| CIWF - Food business - better level of animal welfare  | Food Business  | Global  | All farmed fish  | YES  | 2h   | recommended  | salmon and trout: 72h,<br>sea bass/bream,<br>pangasius: 48h  | YES  | NO                                 | YES  | YES                                     | YES  |
| Best Aquaculture Practices (BAP)   | State of the Period of the Per | Global  | All farmed fish  | YES  | salmon: 1h,<br>other: No max. <sup>1</sup>               | NO   | no max.  | Limits amount.                                 | YES                                | YES  | YES                                     | NO   |
| Friends of the Sea (FOS)   |  | Global  | All farmed fish.<br>Specific for Salmon,<br>trout, sea<br>bass/bream,<br>pangasius | YES  | Max 1.5 h for grading/treatmen ts. Max 2h for harvesting | Recommended<br>structural<br>enrichment should<br>be provided.     | Just enough to get gut<br>clearance. Max 50<br>degree-day  | MAYBE  | YES                                | YES - every 6<br>month                                   | NO                                      | PARTIAL  |
| Global GAP   | GGN<br>AGASTAN<br>AGASTAN  | Global  | All farmed fish <sup>3</sup>   | YES  | no max.  | Efforts to provide environment that cover needs <sup>1</sup>       | no max.  | NO   | YES                                | Some<br>guidelines                                       | YES                                     | NO   |
| Certified Quality Aquaculture (CQA)  | BIM III-   | Ireland | All farmed fish  | NO   | no max.  | NO   | no max.  | NO   | YES                                | Requires a programme <sup>1</sup>                        | NO                                      | NO   |
| Aquaculture Stewardship Council (ASC)  | CARACTE CONTROL OF THE PROPERTY OF THE PROPERT | Global  | Salmon, trout, sea<br>bass/bream,<br>pangasius                                     | YES  | no max.  | NO   | no max.  | MAYBE  | YES                                | Some<br>guidelines                                       | NO                                      | NO   |
| RSPCA  | RSPCA<br>ASSURED   | Global  | Salmon and trout   | YES  | 2h   | NO   | salmon: 72h (might be<br>longer if advised by vet)<br>(pre-transport: 48h),<br>trout: 54 degree days | NO   | NO                                 | YES  | YES                                     | PARTIAL  |
| A Greener World  | SALMON<br>WELFARE<br>CERTIFIED   | Global  | Salmon <sup>3</sup>  | YES  | 2h   | NO   | 72h (might be longer if<br>advised by vet) (pre-<br>transport: 48h)                                  | NO   | NO                                 | YES  | YES                                     | PARTIAL  |
| Label rouge  | R  | France  | salmon, trout, sea<br>bass/bream   | NO   | salmon: 4h, trout,<br>sea bass/bream:<br>no max.         | salmon, sea<br>bass/bream: NO,<br>trout: shelter from<br>predators | salmon, trout: 10 days,<br>sea bass/bream: 14 days   | MAYBE  | YES                                | YES  | NO                                      | NO   |
| Sistema di Qualità Nazionale<br>"Acquacoltura sostenibile"   |  | Italy   | trout,<br>seabass/bream,<br>other  | NO   | no max.  | NO   | no max.  | NO   | YES                                | YES - many<br>parameters<br>every 3<br>months or<br>more | Not applicable                          | NO   |
| Naturland  | Naturland  | Global  | All farmed fish  | YES  | No max.  | NO   | Salmon, trout: 50 degree<br>days<br>Other: not specified   | YES  | YES                                | maybe <sup>1</sup>                                       | NO                                      | NO   |
| EU organic legislation   | 12.2   | EU      | All farmed fish  | YES  | no max.  | freshwater fish: YES   | no max.  | YES  | YES                                | YES  | NO                                      | NO   |
| Soil Association   | 0  | UK      | All farmed fish  | YES  | no max.  | same as EU organic   | salmon and trout: 50<br>degree days  | YES  | YES                                | YES  | YES                                     | NO   |
| Organic food federation  | <b>©</b>   | UK      | All farmed fish  | YES  | no max.  | same as EU organic   | no max.  | YES  | YES                                | YES  | NO                                      | NO   |
| O-label Debio  | <b>(3)</b>   | Norway  | All farmed fish  | YES  | no max.  | same as EU organic   | no max.  | YES  | YES                                | YES  | NO                                      | NO   |
| Global Animal Partnership (G.A.P.) -<br>Step 1   |  | Global  | Farmed salmon  | YES  | Max. 2h  | YES  | 24h  | MAYBE  | NO                                 | YES  | YES                                     | YES  |
| Global Animal Partnership (G.A.P.) -<br>Step 3   |  | Global  | Farmed salmon  | YES  | Max. 2h  | YES  | 24h  | MAYBE  | NO                                 | YES  | YES                                     | YES  |
| Global Animal Partnership (G.A.P.) -<br>Step 5   |  | Global  | Farmed salmon  | YES  | Max. 2h  | YES  | 24h  | МАҮВЕ  | NO                                 | YES  | YES                                     | YES  |
| Marine Stewardship Council (MSC) <sup>2</sup> 1 This certification does not have a clear guideline on this | MSC  | Global  | Wild caught fish only  | N/A  | N/A  | N/A  | N/A  | N/A  | N/A                                | N/A  | N/A                                     | NO   |

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<sup>3</sup> Global GAP and A Greener World have agreed with RSPCA to apply RSPCA welfare standards for Farmed Alantic Salmon