

Aquaculture Stewardship Council and Marine Stewardship Council



Aquaculture
Stewardship
Council



ASC-MSC Seaweed (Algae) Audit Reporting Template Public Certification Report (PCR)

Version 1.1 (Issued 10 December 2020)

Scheme documents:

- [ASC-MSC Seaweed \(Algae\) Standard](#)
- [ASC-MSC Seaweed \(Algae\) Certification and Accreditation Requirements](#)

This document is to be cited as: ASC-MSC Seaweed (Algae) Audit Reporting Template v1.1

Versions issued

Version No.	Date	Description of amendment
1.0	8-Dec-17	N/A – new document
1.1	10-Dec-20	Updated to Word version

[Fishery name]	Wando Eco-friendly Seafood Cooperative (WESC) (13 Farms)
[Client Contact details]	Mr. Hyun Kyu Woo wando2438@naver.com
[CAB contact details]	DNV GL Business Assurance Norway AS, Sabrina Bianchini / T. +393481531781 / E: sabrina.bianchini@dnv.com
[Authors]	Che King Lee (Auditor: Lead, Technical), Seung Hyun Kwak (Auditor: Social, Environment), Paul Casburn (Technical Reviewer)
[Date]	08 September 2021



Instructions

This Reporting Template should be used for initial certification and re-certification audits.

The following reports shall be prepared using the Reporting Template:

- Client Draft Report
- Public Comment Draft Report
- Final Report (FR)
- Public Certification Report (PCR)
- Re-assessment Report

Each section has instructions of what is required within that section of that report. Sometimes an instruction can be traced to an individual requirement in the CAR or Standard. At other times, an instruction represents multiple requirements.

Additional supporting material can be attached as a PDF Annex.

Any references used to support statements in the evaluation tables of the reports shall be included in the “References” section of the table and an in-text reference (e.g., number or author, date), made to the relevant source.

Some words/phrases are underlined with a dotted underline; explanations for these words/phrases can be found by hovering over them.

1 Contact details

Conformity Assessment Body (CAB)	Name of the CAB	DNV GL Business Assurance Norway AS
	Name of assessment team leader	Che King Lee (Lead, Technical)
	Name of first point of contact for the assessment (if different to the assessment team leader).	Seung Hyun Kwak (Social)
	Email address	brian.seunghyun.kwak@gmail.com
	Phone number	+82 2 724 8413
	Mailing address	18th Floor, Kyobo Building, 1, Jongno, Jongno-Gu, Seoul, 03154, Republic of Korea
Client	Name of company	Wando Eco-friendly Seafood Cooperative (WESC)
	Name of first point of contact for the assessment.	Hyun Kyu Woo
	Position in the client organisation	Marketing Director
	Email address	wando2438@naver.com
	Phone number	+82 61 552 2420
	Mailing address	#201, Corporate Support Building, Marin -Bio Research Center, 21-7, Nonggongdanji 4-gil, Wando-eup, Wando-gun, Jeollanam-do, 59108, Republic of Korea

2 Executive summary

A brief description of the scope of the audit	Unit of Certification is Wando Eco-friendly Seafood Cooperative (WESC) (13 Farms) in Wando County, Republic of Korea and Unit of Assessment includes 13 farms and auxiliary primary processing locations. Majority of the products are dried seaweeds (Kelp and Hiziki) and blanched-salted seaweeds and fresh seaweeds are also produced by WESC. Wild stock is not harvested nor used for aquaculture.
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<p>Main strengths and weaknesses of the unit of assessment</p>	<p>Governance structure and internal monitoring and trainings are strength of the unit of assessment.</p> <p>Wando Eco-friendly Seafood Cooperative (WESC) is certified to ASC-MSC Seaweeds with 11 farmers in 2020 (Certificate number: BII.DNVGL.002) and certified to ASC CoC (Certificate number: SWD-C-00005). Total number of certified farms will become 24 if this certification audit with additional 13 famers is successfully completed. Internal management systems are established and implemented.</p> <p>Stakeholder roundtable formed and led by WESC also plays great roles to consult with local stakeholders and give opportunity local stakeholders to participate in the decision-making process.</p> <p>During the initial audit, some areas to be improved to meet the requirements in ASC- MSC Seaweeds Standard are identified and conditions are issued.</p>
<p>A summary of the major findings</p>	<p>One Critical condition and two conditions are issued.</p> <p>Critical condition: PI 4.8 a</p> <p>The production unit shall verify through worker interviews or/and other evidence that the production unit complies with applicable laws related to working hours. The farmers should register the working hours in clear and detailed way and additionally also the off-day. A worker's working hours not only at the farm in the production unit but also at other farm which his employer (farmer) operates shall be recorded in order to demonstrate a weekly working hours and periodical day-off (max each 6 days) are compliant with applicable laws and ASC- MSC Seaweed Standard.</p> <p>WESC has immediately implemented the working hours recording system in the template. The farmer who only employees a worker completed the working hours record in the template. The record demonstrates that the whole working hours from the seaweed farm and the abalone farm are complete. The dates when the worker took rest are indicated in the record. The worker didn't continue to work more than 7 days in a row. The maximum consecutive days of work are 6 days. By applying the new working hours template, total weekly working hours and rest day are clearly recorded and verified. This condition is closed. (19 July 2021)</p> <p>Conditions:</p>

	<p>1) PI 2.7 a There shall be evidence of energy use monitoring relative to production and ongoing effort to improve efficiency. The farmers should clearly record the fuel name and quantity of fuel consumed in the fuel consumption record template as well as daily work log.</p> <p>2) PI 4.9 a Production unit shall demonstrate that workers have the appropriate level of understanding of environmental and social issues. There should be evidence with which the effectiveness of environmental and social trainings is verified so that production unit workers properly dispose of waste, prevent, and manage chemical and hydrocarbon spills, or lodge a grievance.</p>
Audit determination	WESC 13 farms fulfil all ASC seaweed required and all NC approved and closed. Certificate can be issued.

3 Unit of Assessment

The Unit of Assessment defines the extent of the specific production unit that is to be assessed for compliance with the Standard.

<u>Name of the production unit</u>	Wando Eco-friendly Seafood Cooperative (WESC) (13 Farms)								
<u>Target species common name/s</u>	Kelp and Hiziki								
<u>Species Latin name</u>	Saccharina japonica and Hizikia fusiformis								
<u>Production system</u>	Off-shore aquaculture / longline floating rope method								
<u>Location of the production unit</u>	<p>Production units are located in Wando-Gun, Jeollanam-do, Republic of Korea. [South Sea shore of Korean Peninsula / FAO Major Fishing Areas: Pacific, NORTHWEST (Major Fishing Area 61)]</p> <p>Farms are located in the sea around 3 islands called Sinjido(Sinji Island), Yaksando (Yaksan Island) and Geumildo (Geumil Island), and primary processing places (Sun-drying, Mixing with salt) are located in the same islands and in Wando-eup in the South sea in Wando-Gun.</p>								
<u>Stock region</u>	N/A								
<u>Receiving water body</u>	Wando-Gun Sea Area, Jellanam-Do, Republic of Korea								
<u>Clients part of the production unit</u>	Mr. Hyun Kyu Woo/Marketing Director, Wando Eco-friendly Seafood Cooperative (WESC)								
<u>Facilities</u>	Aquaculture equipment, rope, stone anchorage, float, boat, a pumping equipment and a rubber hose for washing								
<u>Unit of Certification (if different)</u>	<p>Wando Eco-friendly Seafood Cooperative (WESC) #201, Corporate Support Building, Marin -Bio Research Center, 21-7, Nonggongdanji 4-gil, Wando-eup, Wando-gun, Jeollanam-do, 59108, Republic of Korea</p> <p>[Address for farms and primary processing place of Member Farmers] (Farm doesn't have the address but have GPS Coordinates)</p> <p>1) Farm of Mr. Myung-Jin KIM: (No.13670)</p> <table border="1"> <tr> <td>34°18'51.56"N</td> <td>126°53'18.47"E</td> </tr> <tr> <td>34°18'50.87"N</td> <td>126°53'18.47"E</td> </tr> <tr> <td>34°18'45.49"N</td> <td>126°53'18.38"E</td> </tr> <tr> <td>34°18'46.67"N</td> <td>126°53'15.93"E</td> </tr> </table>	34°18'51.56"N	126°53'18.47"E	34°18'50.87"N	126°53'18.47"E	34°18'45.49"N	126°53'18.38"E	34°18'46.67"N	126°53'15.93"E
34°18'51.56"N	126°53'18.47"E								
34°18'50.87"N	126°53'18.47"E								
34°18'45.49"N	126°53'18.38"E								
34°18'46.67"N	126°53'15.93"E								

(No.13672)

34°20'25.79"N	126°54'2.97"E
34°20'25.31"N	126°54'5.01"E
34°20'20.56"N	126°54'1.06"E
34°20'19.90"N	126°54'3.30"E

Processing place & Storage: 1514-18, Sinji-ro, Sinji-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°20'35.7"N 126°53'37.1"E)

2) Farm of Mr. Tae-Min KIM & Ms. Bo-Ae JUNG:

(No. 11670)

34°18'3897"N	126°51'8791"E
34°18'34.78"N	126°51'86.02"E
34°18'42.24"N	126°51'75.95"E
34°18'37.77"N	126°51'74.27"E

Processing place & Storage: 1039-3, Woryang-ri, Sinji-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°19'01.0"N 126°50'52.4"E)

3) Farm of Mr. Seung-Ho JEONG:

(No. 13830)

34°18'11.53"N	126°51'49.48"E
34°18'10.97"N	126°51'51.06"E
34°18'03.69"N	126°51'41.80"E
34°18'03.64"N	126°51'41.68"E

Processing place & Storage: 1141-1, Woryang-ri, Sinji-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°18'39.1"N 126°51'12.3"E)

4) Farm of Mr. Kyung-Un KIM:

(No. 13690)

34°23'08.13"N	126°57'75.29"E
34°23'08.08"N	126°57'75.38"E
34°23'08.18"N	126°57'79.29"E
34°23'15.23"N	126°57'79.80"E

Processing place & Storage: 678-1, Haedong-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°22'53.6"N 126°56'13.7"E)

5) Farm of Mr. Gwan-Seop JEONG & Ms. Seon-Ae YU:

(No. 13690)

34°22'97.17"N	126°57'69.96"E
34°22'98.28"N	126°57'74.16"E
34°22'99.76"N	126°57'75.28"E
34°22'99.84"N	126°57'79.63"E

34°22'99.84"N	126°57'79.63"E
34°23'24.38"N	126°57'65.95"E
34°23'28.26"N	126°57'64.21"E
34°23'16.94"N	126°57'60.21"E

Note: The space between the areas are used for vessel path.
Farming is not performed.

Processing place: 410, Haedong-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°23'03.7"N 126°55'37.9"E) /
Storage: 710, Haedong-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°22'53.6"N 126°56'21.2"E)

- 6) Farm of Mr. Choong-Hun CHOI & Ms. Mi-So LEE:
(No. 13661)

34°23'18.03"N	126°57'66.26"E
34°24'69.13"N	126°53'85.53"E
34°24'68.03"N	126°53'74.11"E
34°24'63.48"N	126°53'74.68"E

Processing place: 125-1, Udu-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°23'29.2"N 126°53'40.2"E)
Storage 77-3, Udu-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°23'42.5"N 126°53'33.4"E)

- 7) Farm of Mr. Yong-Young KIM:
(No. 13572)

34°24'05.18"N	127°00'23.05"E
34°24'06.68"N	127°00'24.85"E
34°24'01.66"N	127°00'26.06"E
34°24'03.59"N	127°00'28.10"E

34°23'05.05"N	127°00'42.46"E
34°24'07.78"N	127°00'42.46"E
34°24'03.10"N	127°00'45.45"E
34°24'04.99"N	127°00'48.40"E

Note: There are another farm and vessel path in the space between the areas. The farm located in the space between the areas doesn't belong to the UoA.

Processing place & Storage 1225-9, Cheokchi-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°22'06.5"N 127°01'44.6"E)

- 8) Farm of Mr. Hyun-Seung KIM & Ms. Jeong-Young LEE:
(No. 13572)

34°22'30.53"N	127°02'24.91"E
34°22'28.49"N	127°02'22.37"E
34°22'30.38"N	127°02'19.22"E
34°22'33.01"N	127°02'22.27"E

(No. 14033)

34°24'58.25"N	126°59'25.77"E
34°25'00.11"N	126°59'29.51"E
34°25'02.74"N	126°59'26.94"E
34°25'01.16"N	126°59'23.30"E

Processing place & Storage 1075 Cheokchi-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°22'03.8"N 127°01'30.4"E)

- 9) Farm of Mr. Young-Soo JEON:
(No. 13794)

34°23'55.63"N	126°59'57.66"E
34°23'57.71"N	126°59'59.80"E
34°23'53.47"N	127°00'01.00"E
34°23'55.27"N	127°00'03.96"E

Processing place & Storage: 1233, Cheokchi-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°21'53.5"N 127°01'41.5"E)

- 10) Farm of Mr. Hong-Joo JEON:
(No. 13794)

34°22'24.40"N	127°02'25.27"E
34°22'22.68"N	127°02'22.82"E
34°22'20.25"N	127°02'25.35"E
34°22'22.36"N	127°02'27.76"E

(No. 14033)

34°24'21.94"N	126°59'48.80"E
34°24'18.34"N	126°59'44.87"E
34°24'15.24"N	126°59'46.30"E
34°24'19.19"N	126°59'51.73"E

Processing place & Storage: 1230-1, Cheokchi-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°22'06.2"N 127°01'39.0"E)

- 11) Farm of Mr. Hyuk SEO :
(No. 13693)

34°19'38.48"N	127°01'32.36"E
34°19'40.60"N	127°01'30.59"E
34°19'39.50"N	127°01'33.84"E
34°19'41.86"N	127°01'31.44"E

Processing place 1457, Singu-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°20'28.5"N 127°02'18.0"E)
Storage 478, Singu-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°20'51.6"N 127°02'37.5"E)

- 12) Farm of Mr. Ik-Jin Jo:
(No. 13671)

34°19'16.69"N	126°54'44.93"E
34°19'14.28"N	126°54'48.43"E
34°19'23.99"N	126°54'52.62"E
34°19'21.73"N	126°54'55.94"E

34°19'55.30"N	126°55'07.99"E
34°19'57.28"N	126°55'04.90"E
34°19'51.34"N	126°55'05.69"E
34°19'53.26"N	126°55'02.51"E

	<p>Processing place & Storage 15, Jukcheong-gil, Wando-eup, Wandogun, Jeollanam-do, Republic of Korea(34°20'44.0"N 126°44'09.5"E)</p> <p>13) Farm of Mr. Myeong-Chul Ji & Ms. Dal-Lae Ki: (No. 11341)</p> <table border="1" style="margin-left: 20px;"> <tr> <td>34°17'42.98"N</td> <td>126°49'14.59"E</td> </tr> <tr> <td>34°17'44.53"N</td> <td>126°49'14.59"E</td> </tr> <tr> <td>34°17'48.78"N</td> <td>126°49'09.49"E</td> </tr> <tr> <td>34°17'46.78"N</td> <td>126°49'14.98"E</td> </tr> </table> <p>Processing place & Storage 1084-7, Woryang-ri, Sinji-myeon, Wandogun, Jeollanam-do, Republic of Korea (34°18'36.7"N 126°51'03.3"</p>	34°17'42.98"N	126°49'14.59"E	34°17'44.53"N	126°49'14.59"E	34°17'48.78"N	126°49'09.49"E	34°17'46.78"N	126°49'14.98"E
34°17'42.98"N	126°49'14.59"E								
34°17'44.53"N	126°49'14.59"E								
34°17'48.78"N	126°49'09.49"E								
34°17'46.78"N	126°49'14.98"E								

4 Background information

<u>Seaweed category</u>	Bii Cultivation at sea: supply of seed from wild stocks NOT required or negligible.
<u>History of the Production Unit</u>	<p>Korean total fisheries and aquaculture production reached a peak of 3.1 million tonnes in 1986, declined progressively to less than two million tonnes in 2004 and has only fluctuated slightly since then. Total fish production was 2.1 million tonnes (2015) with aquaculture production accounting for approximately 23 percent of total production. Aquaculture is an important element in the fisheries sector of the country. In 2015 the total aquaculture production was about 1.6 million tonnes with the farm gate value of USD 2.16 billion. Seaweeds farming production was 1.2 million tonnes in 2015, accounting for 71 percent of the total aquaculture production by quantity and 20 percent in value. (reference: Fishery and Aquaculture Country Profile in FAO website)</p> <p>The first aquaculture of Kelp and Hiziki in Wando began in 1968 and 1981 respectively. (reference: Wando county website (www.wando.go.kr)), which is the far more than 20 years ago. The number of farms have increased since then in Wando sea area and seaweeds farming in this area is one of the most popular industries. Not only Kelp and Hiziki which are the target species for this certification audit but also other seaweed including Sea Mustard, Laver, Enteromorpha, seaweed fulvescens are commonly farmed in the area.</p> <p>The member farmers of Wando Eco-friendly Seafood Cooperative (WESC) began the aquaculture farming from 2005 at the earliest. Farmers in the production unit operate in the legitimate licenses.</p> <p>11 farms under WESC are certified to ASC-MSC Seaweed standard in 2020. The 13 new farms indicated in this report are under assessment.</p>
<u>Harvest season</u>	Harvest of Hiziki and Kelp mainly begins from May and ends in June. Partial harvest for salted products will be implemented in between February and April for Kelp and December and April for Hiziki respectively.
Target species background	<p><u>Life history, harvest or aquaculture practices</u></p> <p>Hiziki (<i>Hizikia fusiformis</i>) is a brown sea vegetable growing wild on rocky coastlines around Korea, Japan and China.</p> <p>Initial aquaculture began with wild Hiziki seedling in 1984 in Wando County Sea Area. Seedling taken from wild Hiziki was applied for aquaculture at the early stage, however it was found that wild seedling and cultured seedling resulted in the similar production volume and</p>

		<p>subsequently seedlings supplied from nursery farms are applied for aquaculture. (Reference: Footprint of Korean Fisheries and Aquaculture History)</p> <p>Kelps are large brown algae seaweeds. There are about 30 different genera.</p> <p>Aquaculture of Kelp started in 1968 in Wando County according to the information in the Wando County Website. Kelp (<i>Saccharina Japonica</i>) found in the coastal area in Korea are known to have spread and settled down from the one supplied from Japan for aquaculture.</p>
	<u>Stock status</u>	No use of natural seeds.
	<u>Harvest/production data</u>	<ol style="list-style-type: none"> 1) Farm of Mr. Myung-Jin KIM : Kelp 7 tons/year 2) Farm of Mr. Tae-Min KIM & Ms. Bo-Ae JUNG: Kelp 10 tons/year 3) Farm of Mr. Seung-Ho JEONG: Kelp 8 tons/year 4) Farm of Mr. Kyung-Un KIM: Kelp 4 tons/year 5) Farm of Mr. Gwan-Seop JEONG & Ms. Seon-Ae YU: Kelp 4 tons/year 6) Farm of Mr. Choong-Hun CHOI & Ms. Mi-So LEE: Kelp 6 tons/year 7) Farm of Mr. Yong-Young KIM : Kelp 10 tons/year 8) Farm of Mr. Hyun-Seung KIM & Ms. Jeong-Young LEE: Kelp 12 tons/year 9) Farm of Mr. Young-Soo JEON: Kelp 6 tons/year 10) Farm of Mr. Hong-Joo JEON: Kelp 6 tons/year 11) Farm of Mr. Hyuk SEO : Kelp 3.5 ton/year 12) Farm of Mr. Ik-Jin Jo: Hiziki 13 tons/year <p>Farm of Mr. Myeong-Chul JI & Ms. Dal-Lae KI: Hiziki 7 tons/year</p>
Ecosystem background	<u>Aquatic ecosystem</u>	<p>Wando County (Wando-gun) is a county located in the south of Jeollanamdo Province, Republic of Korea.</p> <p>Wando county consists of 265 islands in 4,940 km² sea area. Its lias beach is formed by foreshore and rocks are under the sea. Part of Wando county sea area (Area of Soan-do and Cheongsan-do) is designated as Dadohae National Park and designated as Marine Protected Area. Subtropical vegetation is observed in the land and islands in the wando area. Average temperature is 14.1°C and yearly average precipitation is 142.2 mm. 137 fish specify are observed in the Wando sea area (Soan and cheongsan district). Sea floor consists of mud and sand. [National Park Marine Ecosystem Fundamental Analysis, Korea National Park Research Institute, ISBN 979-11-90016-28-5 93400] The report issued by Ministry of Oceans and Fisheries in 2008, the licensed area for aquaculture in Wando County is 17,259 ha. Various species are aqua cultured in Wando County including laver, sea mustard, abalone, kelp and hiziki. Soan-Cheongsando District of Dadohaehaesang National Park belong to Wando County.</p> <p>The sea area is open, and movement of currents is free in the entire region.</p>
	<u>ETP species</u>	<p>The ETP species in the surrounding coastal area are Finless Porpoise (<i>Neophocaena asiaeorientalis</i>) and <i>Lutra</i> both of which are in IUCN Redlist. Capture of these species are prohibited by law (Article 14, Wildlife protection and management Act). Both Finless Porpoise and <i>Lutra lutra</i> are not observed in the Wando County</p>

		<p>sea area in 2019 according to Environment and space information system operated by Ministry of Environment. Coral reef is observed in the sea area of Wando county. According to Marine Environment Information Portal, the distance between the nearest farm in the UoA and the Marine Protection area designated by Ministry of Oceans and Fisheries is more than 2 kms. Serious or irreversible harm on coral reef in the Wando County Sea area is not reported in the study on current status of Endangered species (Coral) published in 2019 by National Park Research Institute. A news on increase in coral population in Wando County Sea area is reported by the local TV station in 14 January 2020. Capture and collection of coral from Wando County sea area are prohibited by the relevant law (Article 20, Conservation and management of marine ecosystems Act.) There is no evidence that demonstrates any negative impact of aquafarm operation on endangered species.</p>
	<p><u>Specific constraints</u></p>	<p>There is very low risk of unwanted catch of species as the farm practices longline based aquaculture. Hiziki and Kelp are harvested from a boat with knife.</p>
	<p><u>Critical environments</u></p>	<p>There are no other critical environments or sources of concern. Any chemical is not applied to the seaweeds (Kelp and Hiziki) cultured.</p>
	<p><u>Cumulative impacts</u></p>	<p>There are no cumulative impacts.</p>
<p>Management system</p>	<p><u>Management system</u></p>	<p>Wando Eco-friendly Seafood Cooperative (WESC) currently has 24 member farmers in the cooperative. WESC with 11 farmers were certified to ASC-MSC Seaweed (Algae) in 2020. This is the 2nd group of farmers (13 farmers) seeking the certification. 3 organizations in WESC play key roles such as General Assembly, Board of Directors and Environmentally responsible seafoods committee. All members have legitimate and valid licenses to practice aquaculture of the designated species in the designated area. The license is issue in accordance with Fisheries Act. In addition, the Fishery ground management Act for the use and management duties of the farms, the "Act on the indication of the origin of agricultural and marine products" for the indication of the origin of aquaculture products, the "Act on the Agricultural and Fishery Products Quality Control"</p>
	<p><u>Consultations</u></p>	<p>Wando Eco-friendly Seafood Cooperative (WESC) has formed stakeholder roundtable, called 'Wando ASC-MSC Seaweeds Committee' in which various stakeholder participate. The stakeholders include regulator, researcher, NGO, and industry association, etc. The main purpose of this stakeholder roundtable is to consult various stakeholders to get information or advice with regards to sustainable management of marine environment, sustainable operation of seaweeds farms, societal impact on local community by seaweeds farms, etc. The information gathered from this stakeholder roundtable is applied to the management plan.</p>
	<p><u>On-going consultations</u></p>	<p>Wando ASC-MSC Seaweeds Committee meetings are held 2 times per year. 2 consultation meetings were arranged in 2020 and 2021. 'Environmentally responsible seafoods committee' reporting to the board of directors in WESC monitors the compliance of local laws and customary laws by member farmers. The</p>

		committee has appointed an internal auditor who inspects the farms. The internal auditor conducts interview of farmers and workers, neighbour if necessary. Interview with neighbour is made use of consultation with local community.
	<u>Decision-making process</u>	The highest governing body in WESC is General Assembly which is the final authority in the management and administration of the affairs of the cooperative. It is composed of members who are entitled to vote, duly assembled and constituting quorum. The role of the Board of Directors is to set grand strategic goals and develop an overarching vision for WESC. The board of directors bears the responsibility for moving the organization in a direction, as defined by the cooperative's strategic objectives.
	<u>Agreed-upon measures for the regulation of fishing</u>	Policy on management of seaweeds cultured is addressed in the WESC Manual. All member farmers are supposed to work in accordance with the internal rules. All member farmers have valid license for aquafarming. Regular trainings on ASC-MSC Seaweeds standard, relevant local laws, internal policies and procedures are provided to member farmers. Small group meetings by location are arranged among farmers to share the information. Progress of meeting objectives are monitored and reported to the Board of Directors on a regular basis.
	<u>Monitoring, control, surveillance, and enforcement</u>	No external public surveillance is required as the aquafarm facilities are all within the licensed area. Environmentally responsible seafoods committee' reporting to the board of directors in WESC monitors the compliance of local laws and internal policies and procedures by member farmers. The committee has appointed an internal auditor who inspects the farms. If any violation of law is detected or reported by internal auditor, or stakeholder, initially verbal warning is given, and secondly written warning letter is issued. Disciplinary committee meeting will be held in case of consistent non-compliances. The internal auditor will investigate the case and report to disciplinary committee. The sanction is determined in the disciplinary committee, based on the investigation report and the testimony of the member farmer who violates the law.
	<u>Employee</u>	As of 4 June 2021, only 1 farmer employees a full-time worker. Farmers want to hire more employees however due to COVID-19 pandemic, it is difficult to find employees. Currently works are performed by family members of farmers.
Surrounding Community	<u>Stakeholders</u>	Wando county where the unit of certification is located is famous for aquaculture in Korea. There are many seaweeds farms as well as abalone farms. Recognised stakeholders are local community, regulators (Wando county office), Seaweed research center.
	<u>Community users or activities</u>	There is no community user or activities in the aquafarm facilities. Because, farming right are protected by the government license system.
	<u>Rights of access</u>	There is no individual or groups granted rights of access to the production unit.

Information if family business	<p>In this standard, three key criteria are provided to assist the recognition of micro family businesses for scoring in this Principle:</p> <ul style="list-style-type: none"> • Family members are the main workers in the business • Farming provides the main family income • The maximum farming area is not greater than two ha/family. <p>Since the conditions of production units vary widely globally, some flexibility is allowed for the identification of micro family businesses based on the judgment of CABs. To qualify for the allowed exceptions in the scoring of micro family businesses, the CAB should verify that at least two out of three of the above key criteria are met during the on-site assessment.</p>	<p>The production unit is not considered as family business as the workers in the unit of assessment are employed and the farming area of respective farmers in the unit of assessment is greater than two ha/family.</p>
<u>Main commercial market</u>		<p>3 different Hiziki and Kelp products are sold in Korean Market.</p> <p>One is fresh Hiziki and Kelp. These are sold for seaweed salad ingredient in Korea. And other 2 main products are dried Hiziki/Kelp and blanched and salted Hiziki/Kelp. Majority of Hiziki and Kelp products are dried products . Fresh Hiziki and Kelp are harvested and sold early spring before the seaweeds blade and stripe become thick. Main harvest for dried products are made in May through June.</p> <p>The harvested blade and stripe are brought to sun-dry field in land. These are dried in sun and by hot air if further dry is necessary. After drying, the harvested Hiziki and Kelp are reduced to about 10-15% in weight. For salted seaweeds, the harvested blade and stipe of seaweeds are boiled for about 1 minute and cooled in cold water. The blanched seaweeds are mixed with salt. Wando Eco-friendly Seafood Cooperative (WESC) produces and sells the salted seaweeds and dried seaweeds.</p>
<u>Other production units in the area</u>		<p>Other production units in the vicinity maintain the distance with production units under being assessed and clearly identifiable. Other production units mainly aquaculture same species either for commercial sales or feeding abalone farmed in the area.</p>
	<p>Statement that the production unit is within scope</p> <p>A clear statement from the CAB that the production unit entering assessment meets the scope requirements in Section 2 Seaweed Standard.</p> <p>2.1 Harvesting or farming activities are only eligible for certification if the target species is a seaweed.</p> <p>2.2 The Standard applies globally to all locations and scales of operations, including both harvesting of wild stocks and production from aquaculture systems.</p> <p>2.3 This Standard applies to seaweed production units only. Other production units in scope for assessment under the existing ASC or MSC standards are in no way affected by the Standard.</p>	<p>2.1 The target species in the scope of certification are Seaweeds (Hiziki and Kelp) aquacultured and harvested. All farms subject to this certification audit conduct aquaculture of the target species.</p> <p>2.2 ASC-MSC Seaweeds (Algae) standard is applicable to the unit of certification which produces the seaweeds from aquaculture systems.</p> <p>2.3 ASC-MSC Seaweeds (Algae) standard is applicable to the unit of certification. Farms under the unit of assessment are not in scope for assessment under other existing ASC or MSC standards. Other production units are not affected by the Standard.</p> <p>2.4 Farming is implemented not in onland facility but in the sea. The first aquaculture of Kelp and Hiziki in Wando began in 1968 and 1981 respectively. (reference: Wando</p>

<p>2.4 Harvesting or farming activities involving the introduction of alien (=non-native) species are not eligible for certification, unless:</p> <p>2.4.1 The introduction occurred at least 20 years prior to the date the application is made for assessment against the Standard, or</p> <p>2.4.2 The alien species is cultured in on-land facilities that are completely separated from the aquatic environment.</p> <p>2.5 Organisations seeking certification shall have been in operation for at least 12 months, or one harvest cycle, whichever is less.</p> <p>2.6 Organisations seeking certification shall have available records of performance data covering the periods of time specified in this standard.</p> <p>2.7 Harvesting or farming activities which use mutagenic, carcinogenic or teratogenic pesticides, or any other chemicals that persist as toxins in the marine environment or on the farm or farmed seaweeds, are not eligible for certification.</p>	<p>county website (www.wando.go.kr)), which is the far more than 20 years ago.</p> <p>2.5 The member farmers of Wando Eco-friendly Seafood Cooperative (WESC) began the aquaculture farming from 2005 at the earliest.</p> <p>2.6 WESC and its farmers in the UoA retain the performance data and have made available to the audit team.</p> <p>2.7 Farms don't use mutagenic, carcinogenic or teratogenic pesticides, or any other chemicals that persist as toxins in the marine environment or on the farm or farmed seaweeds.</p>
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5 Audit plan

Assessment team	Name	Summary of qualifications
Team leader	Che King Lee	<p>Che King Lee has more than 30 years of aquafarming experience and he has worked in relevant industries such as consultancy, feed manufacturing, seafood processing, etc.</p> <p>He has completed ASC-MSC Seaweed auditor courses, Bivalve, Salmon, Shrimp and Tilapia.</p> <p>He is a qualified food safety and ASC, ASC CoC Auditor.</p>
Team member 1	Seung Hyun Kwak	<p>[Environmental assessor, Social assessor]</p> <p>Seung Hyun Kwak has B. Eng. in Environmental Engineering and MBA. He possesses work experience in Environment, Health & Safety management for 8 years. He has audit experiences for more than 13 years in social compliance audit and Environment and Health & Safety audit, ASC-MSC Seaweed certification audit, ASC farm audit and the assurance on GHG emissions, Sustainability report. He also conducts trainings in the Health & Safety, Environment, Human Rights and social compliance and management system. He has successfully completed lead auditor training courses based on ISO 19011 principles, including ISO 14001 lead auditor course, OHSAS 18001 course, SA 8000 basic course and advanced course, ASC auditor trainings for Abalone and Bivalve and ASC-MSC Seaweed Auditor training, MSC CoC auditor training. He also completed EICC Labor & Ethics Lead auditor course and RBA Auditor course. His core competence includes audit, assurance and training on EHS, GHG, Sustainability, and social compliance. Seung Hyun Kwak is a qualified RBA (previously EICC) lead auditor. He has conducted more than 100 social compliance audits including 20 RBA audits. He has conducted ASC-MSC Seaweed certification audits</p>

		and ASC Abalone certification audit. He is also a qualified MSC CoC certification auditor.
Team member 2	Young Ah Kim	She majored in Food and Nutrition. Resourceful Quality Professional with over seven years of experience in various areas of quality management. Executed hands-on quality assurance tasks at one of Korea's largest confectionery companies and also performed administrative quality tasks at a certification body covering ISO 22000, FSSC 22000 and others. She has completed HACCP Program training and ISO 9001 auditor training. She is a qualified Hygienist and Nutritionist.
Social auditor	Seung Hyun Kwak	[Environmental assessor, Social assessor] Seung Hyun Kwak has B. Eng. in Environmental Engineering and MBA. He possesses work experience in Environment, Health & Safety management for 8 years. He has audit experiences for more than 13 years in social compliance audit and Environment and Health & Safety audit, ASC-MSC Seaweed certification audit, ASC farm audit and the assurance on GHG emissions, Sustainability report. He also conducts trainings in the Health & Safety, Environment, Human Rights and social compliance and management system. He has successfully completed lead auditor training courses based on ISO 19011 principles, including ISO 14001 lead auditor course, OHSAS 18001 course, SA 8000 basic course and advanced course, ASC auditor trainings for Abalone and Bivalve and ASC-MSC Seaweed Auditor training, MSC CoC auditor training. He also completed EICC Labor & Ethics Lead auditor course and RBA Auditor course. His core competence includes audit, assurance and training on EHS, GHG, Sustainability, and social compliance. Seung Hyun Kwak is a qualified RBA (previously EICC) lead auditor. He has conducted more than 100 social compliance audits including 20 RBA audits. He has conducted ASC-MSC Seaweed certification audits and ASC Abalone certification audit. He is also a qualified MSC CoC certification auditor.

[Add/delete rows as needed]

Site visit

Date of site visit	5/31/2021
Location	[Address for farms and primary processing place of Member Farmers] (Farm doesn't have the address but have GPS Coordinates) 1) Farm of Mr. Myung-Jin KIM: (No.13670) N 34° 18' 50.8" E 126° 53' 20.4", (No.13672) N 34°20'26.1"E 126°54'3.3" / Processing place & Storage: 1514-18, Sinji-ro, Sinji-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°20'35.7"N 126°53'37.1"E) 2) Farm of Mr. Tae-Min KIM & Ms. Bo-Ae JUNG: (No. 11670) N 34°18'22.7" E 126°51'44.6" / Processing place & Storage: 1039-3, Woryang-ri, Sinji-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°19'01.0"N 126°50'52.4"E)

	<p>3) Farm of Mr. Seung-Ho JEONG: (No. 13830) N 34°17'59.3" E 126°51'27.4" / Processing place & Storage: 1141-1, Woryang-ri, Sinji-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°18'39.1"N 126°51'12.3"E)</p> <p>4) Farm of Mr. Kyung-Un KIM: (No. 13690) N 34°23'07.6" E 126°57'46.9" / Processing place & Storage: 678-1, Haedong-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°22'53.6"N 126°56'13.7"E)</p> <p>5) Farm of Mr. Gwan-Seop JEONG & Ms. Seon-Ae YU: (No. 13690) N 34°23'11.72" E 126°57'37.78" / Processing place: 410, Haedong-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°23'03.7"N 126°55'37.9"E) / Storage: 710, Haedong-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°22'53.6"N 126°56'21.2"E),</p> <p>6) Farm of Mr. Choong-Hun CHOI & Ms. Mi-So LEE: (No. 13661) N 34°24'38.6" E 126°53'52.0" / Processing place: 125-1, Udu-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°23'29.2"N 126°53'40.2"E) / Storage 77-3, Udu-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°23'42.5"N 126°53'33.4"E)</p> <p>7) Farm of Mr. Yong-Young KIM: (No. 13572) N 34°24'07.34" E 127°00'45.42" / Processing place & Storage 1225-9, Cheokchi-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°22'06.5"N 127°01'44.6"E)</p> <p>8) Farm of Mr. Hyun-Seung KIM & Ms. Jeong-Young LEE:(No. 13572) N 34°25' 02.91" E 126°59' 26.98" , (No. 14033) N34°22' 30.53" E 127°02' 24.91" / Processing place & Storage 1075 Cheokchi-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°22'03.8"N 127°01'30.4"E)</p> <p>9) Farm of Mr. Young-Soo JEON: (No. 13794) N 34° 23' 55.51" E 126° 59' 57.92" / Processing place & Storage: 1233, Cheokchi-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°21'53.5"N 127°01'41.5"E)</p> <p>10) Farm of Mr. Hong-Joo JEON: (No. 13794) N 34°24'18.0" E 126°59'49.6" (No. 14033) N 34°22'22.9" E 127°02'26.3" / Processing place & Storage: 1230-1, Cheokchi-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°22'06.2"N 127°01'39.0"E)</p> <p>11) Farm of Mr. Hyuk SEO : (No. 13693) N 34°19'46.2" E 127°01'48.8" / Processing place 1457, Singu-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°20'28.5"N 127°02'18.0"E) / Storage 478, Singu-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°20'51.6"N 127°02'37.5"E)</p> <p>12) Farm of Mr. Ik-Jin Jo: (No. 13671) N 34°19'19.42" E 126°54'51.74", N 34°19'57.32" E 126°55'05.92/ Processing place & Storage 15, Jukcheong-gil, Wando-eup, Wando-gun, Jeollanam-do, Republic of Korea(34°20'44.0"N 126°44'09.5"E)</p> <p>13) Farm of Mr. Myeong-Chul JI & Ms. Dal-Lae KI: (No. 11341) N 34°17'48.78" E 126°49'09.49" / Processing place & Storage 1084-7, Woryang-ri, Sinji-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°18'36.7"N 126°51'03.3"E),</p>
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Stakeholders interviewed

Name	Organisation	Position	Summary feedback received
Hee Sung Jo	Wando County Office	Officer	<p>Waste generated by farmers is disposed by Wando county. Incident of Child labor and forced labor in the UoA is not reported.</p> <p>There are no indigenious people in the region. Structures of farms are arranged in a uniform orientation and position as per the licenses issued to farmers.</p>

			Complaint or grievance associated with WESC is not filed. The licenses issued to the farmers in UoA are valid.
Dae Cheol Seo	Fisheries Seed Research Institute, Jeollanamdo Institute of Ocean & Fisheries Science	Director / Member of stakeholder roundtable	Mr. Seo is invited to the stakeholder roundtable as researcher, namely Wando ASC-MSC Seaweeds Committee. He confirms that seaweeds disease or pest are not reported in the region. The genetic structure of wild and aquacultured kelp and hiziki in Wando County Sea area is same. There is no evidence that the marine environment has deteriorated due to the operation of the UoA.
A Neighbour	village	Neighbour fisherman	These days, farmers are well aware of legal requirements on protection of marine environment and ETP species. Illegal catch or bycatch doesn't happen in the seaweeds farm. Fisherman can access to seaweed farm. In the seaweed farm, any additive, fertilizer or chemical is not applied. Seedling is purchased from local suppliers. Wild seaweed is not used.
Doo Hun Park	WWF	Senior Officer, Sustainable Fishery	Interviewed by Phone He has requested to examine carefully if any ETP species is observed or caught in aquaculture. The audit team has verified during the audit that ETP species reported in the Wando county is not observed by farmers. Both Finless Porpoise and Lutra lutra are known to be observed in Wando area, however it is reported to have not been observed in the Wando County Sea area since 2019 according to Environment and space information system operated by Korean Ministry of Environment.
Joong Kyeon Kim	The Korea Federation of Abalone Industry Association	Director / Member of stakeholder roundtable	He is invited to the stakeholder roundtable, namely Wando ASC-MSC Seaweeds Committee. WESC has open communication channel with local community. Those who have complaint and grievance can talk to WESC and WESC is open to listen to the voice of local community.
Ji Seung Lim	Songmin Fishery	President	He is the supplier of Kelp seedling. All farmers who aquaculture kelp in the unit of assessment have purchased the kelp seedling from him. He confirms that wild Kelp is not taken to supply the Kelp seedling but the seedling is grown its nurse house.

Stakeholders written submission received before PCDR

Note: All written submissions from stakeholders (if any) received during the audit should be attached as a PDF Annex.

Name	Organisation	Position	Summary feedback received
None			

Employees interviewed

Name	Organisation	Position	Summary feedback received
Worker 1	Farm in UoA in WESC	Farm worker	He confirms that he was over 18 years old when first employed. He didn't observe any child/juvenile worker in the farm. He signed the employment contract with the farmer and no deduction from wage was practiced. Wages and accommodation are provided as agreed. He didn't experience discrimination. Health and Safety training and precautions were provided. Translation is supported by Vietnamese auditor in DNV GL. Working hours are flexible. It depends on daily workload (status of consumers/orders received). He can take rest depending on weather condition. Daily working hours are less than 6 hours and he is off on Sunday and holiday.

Stakeholders' written submissions received during the PCDR

Only for the Final Report and Certification Report.

All written submissions from stakeholders (if any) received during the audit should be attached as a PDF Annex.

Name	Organisation	Position	Summary feedback received
None			

6 Assessment tree

The final set of PIs to be included in the assessment tree shall be defined depending on the characteristics of the production unit in the UoA, as indicated in Table 3 of the Standard. Unless otherwise indicated, each PI shall be scored.

Principle 1: Sustainable wild seaweed populations

PI 1.1 – Stock status

PI 1.1	Stock status		
Scoring Issue	Minimum	Target	
a	Stock status relative to irreversible impact		
	Guide post	Available information indicates that the wild stock is above the point where the harvesting impact is irreversible or very slowly reversible.	<p>The wild stock is at or fluctuating around a level consistent with MSY (or proxy).</p> <p>OR</p> <p>Available information indicates that harvesting impact causes insignificant change to the wild stock, which is unlikely to be detectable against natural variability for this population, or if detectable is minimal and has no impact on population dynamics.</p>

	Met?	Select one	Select one
	Rationale	N/A. The farms do not use wild stock (Seedlings are supplied by hatchery (Songmin & Wando Bada) who develops sporophyte and supply to farms. Species culture Hiziki (Hizikia fusiformis) and Kelp (Saccharina japonica).	N/A. The farms do not use wild stock (Seedlings are supplied by hatchery (Songmin & Wando Bada) who develops sporophyte and supply to farms. Species culture Hiziki (Hizikia fusiformis) and Kelp (Saccharina japonica).

PI 1.2 – Harvest strategy

PI 1.2 Harvest strategy			
Scoring Issue		Minimum	Target
a	Harvest strategy design		
	Guide post	The harvest strategy is expected to achieve stock management objectives reflected in the stock status target (PI 1.1), based on plausible argument.	The harvest strategy is responsive to the state of the stock, and the elements of the harvest strategy work together towards achieving stock management objectives reflected in the stock status target (PI 1.1).
	Met?	Select one	Select one
	Rationale	N/A. All farm stocked from hatchery produces seeding. There are one each supplier for Kelp & Hiziki seedling. No wild stock is used.	N/A. All farm stocked from hatchery produces seeding. There are one each supplier for Kelp & Hiziki seedling. No wild stock is used.

b	Harvest strategy evaluation		
	Guide post		The harvest strategy may not have been fully tested but evidence exists that it is achieving its objectives.
	Met?		Select one
	Rationale		N/A. All farm stocked from hatchery produces seeding. There are one each supplier for Kelp & Hiziki seedling. No wild stock is used.

PI 1.3 – Genetic impact on wild stock

PI 1.3 Genetic impact on wild stock			
Scoring Issue		Minimum	Target
a	Genetic outcome		
	Guide post	The harvesting or farming activity is unlikely to impact the genetic structure of wild populations.	The harvesting or farming activity is highly unlikely to impact the genetic structure of wild populations.
	Met?	Yes	Yes
	Rationale	Wild population is the same genetic species and wild species is indigenous. Kelp and Hiziki farming have more than 40 year of commercial culture history in Korea.	Hiziki & Kelp have more than 40 years commercial culture history in Korea. Research on genetic difference between wild hiziki and cultured one has not been conducted. (Footprint of Korean Fisheries and Aquaculture History) Hiziki aquaculture began from 1980 in Wando and aquaculture of Kelp started in 1968 in Wando County according to the information in the Wando County Website. Kelp (Saccharina japonica) found species identification and population study on the genus Saccharian) Fisheries Seed Research Institute under Jeollanamdo Institute of Ocean & Fisheries Science confirms in the letter that genetic structure of wild

		<p>and aquacultured kelp and hiziki in Wando County and Sea Area are the same.</p> <p>All farmers in the UoA purchase the seedling from 2 suppliers. One supplier is for Kelp, another for Hiziki. The suppliers have issued a certificate of supply in which it is state that the seedlings supplied are from their nursery house and not from the wild. Date and volume of supply are indicated as well. E.g. Wando Bada (Hiziki), dated 27 October 2020 to Myung Cheol Ji Farm, 1000 kg and 2200 kg (Oct 28). Songmin Fisheries (Kelp) supply to Hong Joo Jeon Farm dated 20 October 2020, quantity 4 frames. The audit team has visited the kelp supplier, Songmin Fishery from which all Kelp farmers in the UoA are supplied with Kelp seedling. The supplier confirmed that wild Kelp is not taken to supply the Kelp seedling, but the seedling is grown its nursey house. The nursey house is visited and inspected. Given the available evidence, the farming activity is highly unlikely to impact the genetic structure of wild populations.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Molecular markers for species identification and population study on the genus Saccharian (NIBR No. 2009-01-021) , 2009, Ga Yeon Jo, Bo Ram Lee, National Institute of Biological Resources - Footprint of Korean Fisheries and Aquaculture History (Registration number 11-1192266-000101-01), 2016, National institute of Fisheries Science - Wando County Website (www.wando.go.kr) - Letter - Seaweed seed and environment (No. 912), 21 May 2020, Fisheries Seed Research Institute under Jeollanamdo Institute of Ocean & Fisheries Science - Site observation: Farms, Songmin Fishery's nursery house <p>Interview: Neighbour Seaweed farm owner, Farmers in the UoA, Director of WESC, Public officer from Wando County, President of Songmin Fishery</p>
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b	Genetic impact management		
	Guide post	There are measures in place, which are expected to maintain the genetic structure of the wild population at levels compatible with the target genetic outcome level of performance.	There is a partial strategy in place, which is expected to maintain the genetic structure of the wild population at levels compatible with the target genetic outcome level of performance.
	Met?	Yes	Yes
	Rationale	Wild population is the same genetic species. and wild species is indigenous. Sea-mustard farming has been in operation for more than 40 years in the same region.	Based on the research paper on Korea Kelp Aquaculture history (Footprint of Korean Fisheries and Aquaculture History), wild kelp and aquacultured kelp have the same genetic structure. Translocation of both Kelp and Hiziki doesn't occur in the aquafarming sites. All seedling is purchased from local suppliers who operate their own nursery house. Matured

		<p>seaweed is collected from farms. The matured sporophytes are brought into land-based tank facilities for nursing operations. There is contact with marine environment. However, the impact is considered negligible because, longline method is applied in the UoA for aquaculture and no use of any ingredients, feeds or fertilizer. This method is found to have very little impact on the surrounding ecological environment. Audit team confirmed genetic impact was limited and negligible. Kelp and Hiziki farming have been in operation for more than 30-40 years in the same region and there is no issue reported genetic impact on wild populations.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Molecular markers for species identification and population study on the genus Saccharian (NIBR No. 2009-01-021), 2009, Ga Yeon Jo, Bo Ram Lee, National Institute of Biological Resources. - Footprint of Korean Fisheries and Aquaculture History (Registration number 11-1192266-000101-01), 2016, National institute of Fisheries Science - Wando County Website (www.wando.go.kr) - Letter - Seaweed seed and environment (No. 912), 21 May 2020, Fisheries Seed Research Institute under Jeollanamdo Institute of Ocean & Fisheries Science - Site observation: Farms, Songmin Fishery's nursery house <p>Interview: Neighbour Seaweed farmer, Farmers in the UoA, Director of WESC, Public officer from Wando County, President of Songmin Fishery</p>
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Principle 2: Environmental impacts

PI 2.1 - Habitats

PI 2.1	Habitats		
Scoring	Issue	Minimum	Target
a	Seaweed-habitat status		
	Guide post	The UoA is unlikely to reduce structure and function of the habitat created by the target seaweed to a point where there would be serious or irreversible harm.	The UoA is highly unlikely to reduce structure and function of the habitat created by the target seaweed to a point where there would be serious or irreversible harm.
	Met?	Yes	Yes
	Rationale	Referred to justification in Target Level.	Farmers in the production units cultivate kelp and Hiziki in the sea-based farms. Seedling is supplied by local hatchery. Wild stock is not used for aquaculture nor for sales. Wild Kelp grows in general in the gravel sea floor in the deep sea and wild Hiziki is found in low tide line of the coast. Longline based aquaculture is practiced in the sea area which is far from low tide line and above the sea floor.

			<p>Longlines are stretched horizontally on the surface of water and anchored firmly to the bottom. The anchored habitat is only a small area in the bottom of the cultivation area where the rope is fixed.</p> <p>There is no direct contact to the bottom habitat by Kelp and Hiziki aquaculture by farmers. Farmers in the production units operate small vessels for work to the farm which does not impact on the habitat of wild seaweed as farmers take a mooring of vessel in the harbour and sail to farms by sea route. The seaweed farming in the production units is highly unlikely to reduce structure and function of the habitat created by wild Kelp and wild Hiziki. There is no risk of any negative impact on wild stocks. Given the available evidence, the UoA is highly unlikely (Highly unlikely =< 30th %) to reduce structure and function of the habitat created by the target seaweed to a point where there would be serious or irreversible harm.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Seaweed Farming Final Service Report to Establish a Strategy to cope with Climate Change in Wando County, January 2016, Wando Branch of Jeollanamdo Ocean & Fisheries Science Institute - Pest control in Aquaculture of Sargassum Fusiforme (2016, Ho Chang Yoo, Mokpo University) - National Aquaculture Sector Overview, Republic of Korea, FAO website (http://www.fao.org/fishery/countrysector/naso_korea/en) - Environment Report on Western Coastal Fisheries in South Sea, Korea (Feb 2021) monitoring on water quality temperature, salinity, DO, COD, TN, DIN, TP, NIP, Suspended Particulate Matter, Chlorophyll-a and Water Quality Grade. - Site observation: Farms, Songmin Fishery's nursery house <p>Interview: Neighbour Seaweed farmer, Farmers in the UoA, Director of WESC, Public officer from Wando County, President of Songmin Fishery</p>
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b	Other commonly encountered habitat status		
	Guide post	The UoA is unlikely to reduce structure and function of other commonly encountered habitats to a point where there would be serious or irreversible harm.	The UoA is highly unlikely to reduce structure and function of other commonly encountered habitats to a point where there would be serious or irreversible harm.
	Met?	Yes	Yes
	Rationale	Referred to justification in Target Level.	Farmers in the UoA aquaculture Hiziki and Kelp in the sea-based farms. Other species are not harvested by farmers. Longline based aquaculture is practiced in the sea area which is far from low tide line and above the sea floor. Longlines are stretched horizontally on the surface of water and anchored firmly to the bottom in order to keep the longlines on the surface of the water. The encountered habitat is only the small area in the bottom of the cultivation area where the rope is fixed.

		<p>There was no direct contact to the bottom habitat by Kelp and Hiziki aquaculture by farmers. Farmers in the UoA operate small vessels for work to the farm which does not impact on the habitat of wild seaweeds as farmers take vessel from the harbour and sail to farms by sea route. Wando County consists of 265 islands in 4,940 km² sea area. The report issued by Ministry of Marine and Fisheries in 2008, the licensed area for aquaculture in Wando County is 17,259 Ha which is equivalent to 172.59 km². Approximately 3% of the sea area of Wando County is licensed for aquaculture. The sea area is open, and movement of currents is free in the entire region. Thus, the potential environmental impacts of the aquaculture activities can be considered in the entire region of Wando County Sea area. The report published by National Park Research Institute states that number of other wild seaweeds species found in 2008 and 2009 in Wando County Sea area were 12-22 species by sampling points while in 2018 research report shows that it has increased to 65-111 species. Fisheries Seed Institute attached to Jeollanam-do Ocean & Fisheries Science Institute states in the letter dated on 21 May 2020 that native impacts on the habitats due to Kelp and Hiziki aquaculture has not been reported last 10 years. Based on the facts described above, the UoA is highly unlikely (Highly unlikely =< 30th %) to reduce structure and function of other commonly encountered habitats to a point where there would be serious or irreversible harm.</p> <p>Reference:</p> <ul style="list-style-type: none"> - A study on how to restructure aquaculture industry to improve the competitiveness, January 2008, Ministry of Oceans and Fisheries - 2018 Research report on natural resources in Dadohaehaesang National Park (Marine) (NPRI2018-12), 2018, National Park Research Institute - Letter regarding Impact on Marine Environment dated on 21 May 2020, Fisheries Seed Institute attached to Jeollanam-do Ocean & Fisheries Science Institute (Fisheries Seed Institute-012) - Website of Wando County (www.wando.go.kr) - Article 25 (Designation and Management of Protected Marine Areas), Conservation and Management of Marine Ecosystems Act [Enforcement Date 29. May, 2018.] [Act No.15135, 28. Nov, 2017., Partial Amendment] - <u>Marine Ecological Information Portal</u> (http://www.ecosea.go.kr/) / <u>Marine Ecosystem Protection Area info.</u>
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			<ul style="list-style-type: none"> - Site observation: Farms, Songmin Fishery's nursery house Interview: Neighbour Seaweed farmer, Farmers in the UoA, Director of WESC, Public officer from Wando County, President of Songmin Fishery
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Vulnerable Marine Ecosystem (VME) status			
c	Guide post	The UoA is unlikely to reduce structure and function of the VME habitats to a point where there would be serious or irreversible harm.	The UoA is highly unlikely to reduce structure and function of the VME habitats to a point where there would be serious or irreversible harm.
	Met?	Yes	Yes
	Rationale	Referred to justification in Target Level.	<p>VME possibly affected is the ecosystem of coral reefs in the sea area of Wando County. According to Marine Environment Information Portal, the distance between the nearest farm in the UoA and the Marine Protection area designated by Ministry of Oceans and Fisheries is more than 2 KM. There was no report on Serious or irreversible harm on VME in the Wando County Sea area in the study on current status of Endangered species (Coral) published in 2019 by National Park Research Institute. News on increase in coral population in Wando County Sea area is reported by the local TV station in 14 January 2020. Capture and collection of coral from Wando County sea area are prohibited by the relevant laws. [Article 14 (Prohibition against Capture, Collection, etc. of Endangered Wildlife and Wildlife protection and management act / Article 20 (Prohibitions against Capturing or Collecting, etc. Marine Organisms under Protection), Conservation and management of marine ecosystems Act. The farmers in the UoA do not have the direct contacts or sail over the area where VME is located. The public official interviewed stated that no illegal capture of coral reported. Farmers stated to respect and comply with the laws. Therefore, the UoA is highly unlikely (Highly unlikely =< 30th %) to reduce the structure and function of the VME habitats to a point where there would be serious or irreversible harm.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Marine Protection Area, Notice of Ministry of Oceans and Fisheries (Nr. 2012-836) - Marine Environment Information Portal (https://www.meis.go.kr/mes/marineSanctuary/situation.do), Ministry of Oceans and Fisheries. - Study on current status of Endangered species (Coral) published in 2019 by National Park Research Institute (NPRI2019-23) - Flowers in sea, Coral reef proliferation in Wando sea', MBC news, 14 January 2020 (https://imnews.imbc.com/replay/2020/nwtoday/article/5650573_32531.html) - National law information center (www.law.go.kr), Ministry of Government legislation - Site observation: Farms <p>interview: Public officer from Wando County, Famers, Director of WESC</p>

PI 2.2 – Ecosystem structure and function

PI 2.2		Ecosystem structure and function	
Scoring Issue		Minimum	Target
a	Ecosystem status		
	Guide post	The UoA is unlikely to disrupt the key elements underlying ecosystem structure and function to the point	The UoA is highly unlikely to disrupt the key elements underlying ecosystem structure and function to the point where there would be serious or irreversible harm.

		where there would be serious or irreversible harm.	
	Met?	Yes	Yes
	Rationale	Referred to justification in Target Level.	<p>Environment Report on Western Coastal Fisheries in South Sea Korea Sea 2021 by Southsea Fisheries Office under NFRI (National Fisheries Research Institute) on Temperature, salinity, Dissolved Oxygen (DO), Chemical Oxygen Demand (COD), Total Nitrogen (TN), Total Phosphorous (TP), Dissolved Inorganic Nitrogen (DIN), Dissolved Inorganic Phosphorous (DIP), SiO₂-Si, Chlorophyll-a & water quality grade doesn't state negative environmental impact. The report also compares water quality in Wando area from 2010 to 2020. The water quality in Wando area is classified as Grade 1 which is the best water quality.</p> <p>Fishing ground environmental assessment will be performed by the local government 1 year before the fishing license expires to determine the extension of the license in accordance with Article 11.2 Fishing ground environmental assessment, Fishing ground management Act. 'A study on Shellfish and seaweeds aquaculture farming field environmental assessment guidance' (Ministry of Oceans and Fisheries, 2016) also states that parameters of TOC and Benthic Health Index (BHI) from seaweeds aquaculture farms do not show actual difference against control group compared and are below the thresholds for Grade 1 of aquaculture farming field. Any additives or fertilization is not applied to increase production in the Kelp and Hiziki farms. Both are naturally grown in the sea. Based on the facts described above, it is considered the UoA is highly unlikely (Highly unlikely =< 30 %) to disrupt the key elements underlying ecosystem structure and function to the point where there would be serious or irreversible harm.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Environment Report on Western Coastal Fisheries in South Sea Korea Sea 2021 issued by Southsea Fisheries Office under NFRI (National Fisheries Research Institute) - A study on Shellfish and seaweeds aquaculture farming field environmental assessment guidance issued by Ministry of Oceans and Fisheries, 2016 - Site observation: Farms <p>interview: Public officer from Wando County, Famers, Director of WESC</p>

PI 2.3 – ETP species

PI 2.3	ETP species		
Scoring Issue	Minimum		Target

a	Effects of the UoA on population/stocks within national or international limits, where applicable		
	Guide post	Where national and/or international requirements set limits for impact on ETP species, the effects of the UoA on the population/stock are known and likely to be within these limits.	Where national and/or international requirements set limits for impacts on ETP species, the combined effects of the UoAs and any other certified seaweed UoA on the population/stock are known and highly likely to be within these limits.
	Met?	Yes	Yes
	Rationale	Referred to justification in Target Level.	There is no national legislation or international agreements that set limits for protection or rebuilding of ETP species. Relevant fisheries law in Korea law does not specify legal responsibility for protecting ETPs in aquafarms. Wildlife protection and management Act only states ETP species and requirements of protection. Reference: - The national law information center (www.law.go.kr) - Site observation: Farms interview: Public officer from Wando County, Famers, Director of WESC

b	Direct effects		
	Guide post	Known direct effects of the UoA are likely to not hinder recovery of ETP species.	Direct effects of the UoA are highly likely to not hinder recovery of ETP species.
	Met?	Yes	Yes
	Rationale	Referred to justification in Target Level.	The ETP species in the surrounding coastal area are Finless Porpoise (<i>Neophocaena asiaeorientalis</i>) and Eurasian Otter (<i>Lutra lutra</i>) both of which are in IUCN Redlist. In the UoA, longline based aquaculture is practiced in the sea area which is far from low tide line and above the sea floor. Nearest is 2 KM, furthest is 15 KM from the protected area. Longlines are stretched horizontally on the surface of water and anchored firmly to the bottom to keep the longlines on the surface of the water. Once the seedling is tied to the rope, the seaweeds naturally grow floating in the sea. In the IUCN Website, the main cause of the continued decline in abundance of Finless Porpoise (<i>Neophocaena asiaeorientalis</i>) is stated to be attributed mainly to bycatch in gill net, trawl-net and stow-net fisheries in the area and fishing activities such as fish farming and lost or abandoned (ghost) fishing nets. Korea Otter Research Center in its website state that one of the main causes of the decline of Eurasian Otter (<i>Lutra lutra</i>) is trap-net. The seaweeds farms in the UoA do not use gillnet, trawl-net or stow-net. Finless Porpoise and Eurasian Otter (<i>Lutra lutra</i>) can come and escape from the seaweed farming area as farm is constructed with only ropes installed in distance. Farmers in the UoA operate small vessels for work in the farm. Eurasian Otter (<i>Lutra lutra</i>) is most active at night when farmers don't work according to a paper called

			<p>Endangered Wildlife at a glance published by National Institute of Biological Resources (2018). Both Finless Porpoise and Lutra lutra were not observed in the Wando County Sea area in 2019 according to Environment and space information system operated by Korean Ministry of Environment. Probability of collision with Finless Porpoise or Lutra lutra by work vessel is very low in the UoA. Farmers are aware of legal requirements on protection of ETP species in Chapter 14 Prohibition against Capture, Collection, etc. on Endangered Wildlife, Wildlife protection and management Act. There is no obvious direct impact on surrounding land and marine environment and there is very low risk direct contact other species by kelp and hiziki. WESC director, farmers in the UoA, and neighbour stated that there has been no case of mortality of ETP species due to seaweed farming activities and they have not observed the ETP species within the boundary of farms. Therefore, the direct effects of the UoA are highly not likely to not hinder the recovery of ETP species. Therefore, the direct effects of the UoA are highly likely (Highly likely = > 80th %ile) to not hinder the recovery of ETP species.</p> <p>Reference:</p> <ul style="list-style-type: none"> - IUCN Website (https://www.iucncongress2020.org/motion/110) - Korea Otter Research Center Website (http://www.ottercenter.org/otterInfo.html) - Endangered Wildlife at a glance (Revised in 2017) (Registration number 11-1480592-001380-01), 2018, National Institute of Biological Resources <p>Environment and space information system operated by Ministry of Environment (http://egis.me.go.kr/map/map.do?type=eco) / Observation Frequency of Endangered species in Wando area</p>
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C	Indirect effects		
	Guide post		Indirect effects have been considered for the UoA and are thought to be highly likely to not create unacceptable impacts.
	Met?		Yes
	Rationale		A negative impact which aquaculture activity in the production units may have on ETP species is fuel spillage and noise from vessel and operation. The farmers prevent the spillage of fuel both on the boat and in land and the noise is not serious as it is from a small boat. The aquaculture farms are in the sea and the farmers don't use any feed in the farm. Therefore, there is no significant direct impact on the surrounding land and the marine environment. There is no light or noise on the shore. According to the Annual Report on Marine Environment Monitoring, the

		<p>environment and habitats have not changed significantly.</p> <p>Public officer from Wando County and a neighbour interviewed state that there was no fuel spillage reported since last calendar year in UoA and Wando County sea area.</p> <p>Given the available evidence, the negative impact of farms is unlikely, so UoA is considered highly likely (Highly likely => 80%) to not create unacceptable Impact.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Annual Report on Marine Environment Monitoring 2017, 2018, 2019 (Registration Number 11-1192000-000508-10), Co-authored by Ministry of Oceans and Fisheries and Korea Marine Environment Management Corporation (KOEM) - Site observation: Farms <p>interview: Public officer from Wando County, Neighbour, Famers, Director of WESC</p>
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d	Management strategy in place		
	Guide post	<p>There are measures in place that minimise the UoA-related impact on ETP species, and it is expected to be highly likely to achieve national and international requirements for the protection of ETP species.</p> <p>OR</p> <p>Where there are no requirements for protection and rebuilding provided through national ETP legislation or international agreements, there are measures in place that are expected to ensure the UoA does not hinder the recovery of ETP species.</p>	<p>There is a strategy in place for managing the impact of the UoA on ETP species, including measures to minimise mortality, which is designed to be highly likely to achieve national and international requirements for the protection of ETP species.</p> <p>OR</p> <p>Where there are no requirements for protection and rebuilding provided through national ETP legislation or international agreements, there is a strategy in place that is expected to ensure the UoA does not hinder the recovery of ETP species.</p>
	Met?	Yes	Yes
	Rationale	Referred to Target Level.	<p>The aquafarms are in the areas as indicated in the license. According to Marine Environment Information System, the distance between the nearest farm in the UoA and the Marine Protection area designated by Ministry of Oceans and Fisheries is more than 2 KM. The aquaculture method (longline) ensures that there is little interaction with the ETP species in the area.</p> <p>The relevant legal requirements to protect the ETP species are identified, assessed, and addressed in the WESC Manual (Chapter 4, WESC Manual). The farmer prevents fuel spillage from the vessel and the noise using small boat (Sub Chapter 10.2.3, and 14.2.5, WESC Manual). No additive, chemical or feed are applied in the farm. The ETP species in the area are identified (Chapter 9, WESC Manual) and farmers are trained on how to protect the ETP species. Farmers are required to record in the work log and report to WESC when observing the ETP species (Sub Chapter 9.2, WESC Manual).</p> <p>Reference:</p>

		<ul style="list-style-type: none"> - Fishery License - Marine Protection Area, Notice of Ministry of Oceans and Fisheries (Nr. 2012-836) - Marine Environment Information Portal (https://www.meis.go.kr/mes/marineSanctuary/situation.do), Ministry of Oceans and Fisheries. - WESC Manual (Rev. 1.2, 30 April 2021) - Training records - National law information center, Ministry of Government legislation (www.law.go.kr) - Site observation: Farms <p>interview: Public officer from Wando County, Neighbour, Famers, Director of WESC</p>
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e	Management strategy evaluation		
	Guide post	The measures are considered likely to work, based on plausible argument.	There is an objective basis for confidence that the measures/strategy will work, based on information directly about the UoA and/or the species involved.
	Met?	Yes	Yes
	Rationale	Referred to Target Level.	<p>The ETP species to be protected in the region are clearly identified and the relevant legal requirements are addressed in the WESC Manual (Chapter 4 and 9, WESC Manual). The aquafarms are constructed as licensed and not located in the Marine Protection area. Policy and procedures to prevent the fuel spillage and noise generation are established in the WESC manual (Sub Chapter 10.2.3 and 14.2.5). The procedure to record and report is established. (Sub Chapter 9.2, WESC Manual). Interview with the farmers and the director of WESC demonstrate that they are aware of both internal and legal requirements to protect the ETP species. The farmers and neighbour famer state that the no catching or any mortality of the ETP species observed in the UoA. The public official also states that the no record of catching or mortality of the ETP species in UoA. Given the available evidence, the measures and strategy to protect the ETP species in UoA are compliant to ASC MSC Seaweed requirement.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Fishery License - Marine Protection Area, Notice of Ministry of Oceans and Fisheries (Nr. 2012-836) - Marine Environment Information Portal (https://www.meis.go.kr/mes/marineSanctuary/situation.do), Ministry of Oceans and Fisheries. - WESC Manual (Rev. 1.2, 30 April 2021) - Training records - National law information center, Ministry of Government legislation (www.law.go.kr) - Site observation: Farms - interview: Public officer from Wando County, Neighbour, Famers, Director of WESC

f	Management strategy implementation		
	Guide post		There is some evidence that the measures/ strategy is being implemented successfully.
	Met?		Yes
	Rationale		The WESC Manual (Rev. 1.2, 30 April 2021) states the information with regards to the ETP species in the region. The management strategy including policies and procedures are addressed in the WESC manual.

		<p>Trainings were provided to the farmers in the UoA and records are retained. The farmers in the UoA can state the policies and procedures.</p> <p>Daily work log in which the observation of ETP Species was recorded and record are available. The work log shows there is no unwanted catch or mortality of the ETP species.</p> <p>No fuel spillage is reported in Wando Sea Area. (Korean Statistical Information Service), farmers, and stakeholder's interview.</p> <p>The evidence described above demonstrates that the measures/strategy is in place and implemented accordingly.</p> <p>Reference</p> <ul style="list-style-type: none"> - Fishery License - Marine Protection Area, Notice of Ministry of Oceans and Fisheries (Nr. 2012-836) - Marine Environment Information Portal (https://www.meis.go.kr/mes/marineSanctuary/situation.do), Ministry of Oceans and Fisheries. - WESC Manual (Rev. 1.2, 30 April 2021) - Training records - National law information center, Ministry of Government legislation (www.law.go.kr) - Site observation: Farms - interview: Public officer from Wando County, Neighbour, Famers, Director of WESC
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g	Review of alternative measures to minimise mortality of ETP species		
	Guide post	There is a review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species.	There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species and they are implemented as appropriate.
	Met?	Yes	Yes
	Rationale	Referred to Target Level.	<p>There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species and they are implemented as appropriate and record in farmer work log. Latest reviewed of the farmer work log, no mortality of ETP species since last calendar year.</p> <p>Reference</p> <ul style="list-style-type: none"> - Work log - Site observation: Farms - Interview: Public officer from Wando County, Neighbour, Famers, Director of WESC

PI 2.4 – Other species

PI 2.4	Other species			
Scoring Issue	Minimum	Target		
a	Main species stock status			
	Guide post	Main species are likely to be above biologically based limits.	Main species are highly likely to be above biologically based limits.	
		<p>OR</p> <p>If the main species are below biologically based limits, there are measures in place expected to</p>	<p>OR</p> <p>If the main species are below biologically based limits there is either evidence of recovery or a demonstrably effective</p>	

		ensure that the UoA does not hinder recovery and rebuilding.	strategy in place between the UoA and any other certified seaweed UoAs, which categorise these species as main, to ensure that they collectively do not hinder recovery and rebuilding.
	Met?	Yes	Yes
	Rationale	Referred to Target.	<p>Sebastis cusmarmoratus, Ditrema temminckii, Chromis notata, Pterogobius zonoleucus are the most frequently observed in Wando County Sea area according to the research report published by National Park Research Institute. 16 species are designated for stock rebuilding plan and Thamnaconus modestus and Gadus chalcogrammus are the species targeted by National Institute of Fisheries Science for intensive recovery and rebuilding since 2014. Another 4 species (Sebastis cusmarmoratus, Ditrema temminckii, Chromis notata, Pterogobius zonoleucus) are not designated species for recovery. The farmers in the WESC do not capture these species. 'Sargassum horneri' floats around the South Sea of Korea and hinders seaweeds farming. 'Sargassum horneri' is observed in the Wando County area. Farmers remove 'Sargassum horneri' from the farming area. According to the report issued by Korea Maritime Institute, 'Sargassum horneri' travels from the coastal area of the southern China on the current and harms the aquafarming and fishery. Local government and Korea Marine Environment Management Corporation mainly harvest and remove it. The catch of 'Sargassum horneri' by the UoA comprises far less than 1% by weight of the total harvest of all species. Therefore, Sargassum horneri was not considered 'main' species.</p> <p>Reference</p> <ul style="list-style-type: none"> - 2018 Research report on natural resources in Daedohaehaesang National Park (Marine) (NPRI2018-12), 2018, National Park Research Institute - National Institute of Fisheries Science Website (www.nifs.go.kr) - KMI Analysis, Volume 44, 2017 September, Korea Maritime Institute

b	Management strategy in place		
	Guide post	There are measures in place, if necessary, which are expected to maintain or not hinder rebuilding of main species at/to levels, which are highly likely to be above biologically based limits or to ensure that the UoA does not hinder their recovery.	There is a partial strategy in place for the UoA, if necessary, which is expected to maintain or to not hinder rebuilding of the main species at/to levels, which are highly likely to be above the biologically based limits or to ensure that the UoA does not hinder their recovery.
	Met?	Yes	Yes
	Rationale	Referred to Target Level.	The UoA applies longline based seaweed aquaculture in the sea area and the lines are anchored firmly to the bottom. Seaweed Farming Final Service Report to Establish a Strategy to cope with Climate Change in Wando County states that the target seaweed contributes to rebuild the fish population. Any net or other gears in which fishes are caught is not installed in the farms. The policy on

		<p>respect for compliance is clearly stated in the Chapter 4, WESC Manual. All farmers in the UoA have valid aquaculture license (Fishery license) and signed the agreement with fishery village association. The license and the agreement state that the location where the aquaculture is implemented and the species which are allowed to culture. Farmers in the UoA are not permitted to catch other species which are not indicated in the license and the agreement.</p> <p>WESC has established the strategic objectives, which is Objective 1. Preservation of Sustainable Marine Environment. To achieve this objective, action plan is established. Given the available evidence, the strategy in the UoA is expected to maintain or to not hinder rebuilding of the main species to the levels which are highly likely (Highly likely = > 80th %) to be above the biologically based limits or to ensure that the UoA does not hinder their recovery.</p> <p>Reference</p> <ul style="list-style-type: none"> - 2018 Research report on natural resources in Daedohaehaesang National Park (Marine) (NPRI2018-12), 2018, National Park Research Institute - National Institute of Fisheries Science Website (www.nifs.go.kr) - Seaweed Farming Final Service Report to Establish a Strategy to cope with Climate Change in Wando County, January 2016, Wando Branch of Jeollanam-do Ocean & Fisheries Science Institute - WESC Manual - Site observation: Farms <p>Interview: Public officer from Wando County, Neighbour, Famers, Director of WESC</p>
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C	Management strategy evaluation		
	Guide post	The measures are considered likely to work, based on plausible argument (e.g. general experience, theory or comparison with similar UoAs/species, etc.).	There is some objective basis for confidence that the measures/partial strategy will work, based on some information directly about the UoA and/or species involved.
	Met?	Yes	Yes
	Rationale	Referred to Target Level.	The relevant legal requirements are addressed in the WESC Manual (Chapter 4, WESC Manual, Version 1.2 dated 30 April 2021). All 13 farms in the UoA has legitimate aquafarm license. All farmers are required to record the work log from which all daily activities are monitored. Environmentally responsible seafoods committee of WESC monitors the compliance of local laws and policy & procedures by member farmers. The committee has appointed an internal auditor who inspects the farms. Interview with the farmers and the director of WESC demonstrate that they are aware of both internal and legal requirements to protect the ETP

		<p>species. The farmers and neighbour farmers stated that the catch of fishes doesn't happen in the UoA as the farms only target aquaculture seaweeds. Given the available evidence, there are some objective basis for confidence that the measures, partial strategy will work, based on some information directly about the UoA and species involved.</p> <p>Reference</p> <ul style="list-style-type: none"> - WESC Manual - Meeting minutes of Environmentally responsible seafoods committee - Site observation: Farms - Interview: Public officer from Wando County, Neighbour, Famers, Director of WESC
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d	Management strategy implementation		
	Guide post		There is some evidence that the measures/partial strategy is being implemented successfully.
	Met?		Yes
	Rationale		<p>Trainings on legal requirements and policies, procedures were provided to the famers in the UoA and records are retained. The farmers in the UoA can state the policies and procedures. Daily work log is recorded and retained. The work log shows there is no catch or mortality of the other species.</p> <p>The evidence described above demonstrates that the measures, partial strategy is being implemented successfully.</p> <p>e.g. WESC Manual Training dated 2020.7.30 (Office), 2020.8.19 (Office) & 2020.9.14-16 for farm training, training include disease & waste management. Trainer Mr KIM & Ms Park.</p> <p>Reference</p> <ul style="list-style-type: none"> - Training records - WESC Manual <p>Interview: Famers, Director of WESC</p>

e	Review of alternative measures		
	Guide post	There is a review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of main species.	There is a regular review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of unwanted catch of main species and they are implemented as appropriate.
	Met?	Yes	Yes
	Rationale	Referred to Target Level.	There has been no catch of other species nor UoA-related mortality of unwanted catch, which is verified with farmer interview and daily work log. Environmentally responsible seafoods committee of WESC regularly reviews the monitoring results of farmers' aquaculture practice in the UoA. Committee meetings are scheduled and conducted. Meeting minutes

		are recorded and retained. No unwanted catch of main species since last calendar year. Reference <ul style="list-style-type: none"> - Training records - Work Log - WESC Manual - Interview: Famers, Director of WESC
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PI 2.5 – Waste management and pollution control

PI 2.5		Waste management and pollution control	
Scoring Issue		Minimum	Target
a	Waste reduction		
	Guide post	There are some measures in place that can help to reduce waste produced by the UoA.	There is a strategy in place, which is expected to reduce waste produced by the UoA.
	Met?	Yes	Yes
	Rationale	Referred to Target Level.	<p>Waste reduction strategy is addressed in the Sub Chapter 10.2.1 Chemical waste and 10.2.2 Biological waste, WESC Manual, version 1.2 dated on 30 April 2021. Regular training on Awareness on ETP, farm training on management, waste and disease, e.g. 12-13 May 2021 to all farmers.</p> <p>Farmers are trained on waste reduction strategy. Training records are retained. All wastes generated and collected from farms will be recorded in the work log and are moved to the designated area in land or on the sea floating deck which is arranged by local government.</p> <p>Reuse and recycling of gears are encouraged in the production units and unused and/or waste gears shall be recovered for proper disposal.</p> <p>This will result in less supply of inorganic matter to the sea. Pruned seaweed shall not be thrown away to the sea, instead used for the feed of abalone, or sold to reduce organic load in the sea. Farmers actively collect 'Sargassum horneri' which floats around and hinders seaweeds grow and farming. The collected 'Sargassum horneri' are dried and applied to crop field on land. Farmers have replaced Styrofoam buoys to environmentally friendly plastic buoys. Tie-Ties are collected during the maintenance of gears during the off season.</p> <p>Reference: <ul style="list-style-type: none"> - Work log - Training record - WESC Manual - Interview: Famers, Director of WESC </p>

	Chemicals and hydrocarbon wastes
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b	Guide post	There are some measures in place that can help to reduce chemical and hydrocarbon wastes produced by the UoA.	There is a strategy in place, which is expected to reduce chemical and hydrocarbon waste produced by the UoA.
	Met?	Yes	Yes
	Rationale	Referred to Target level.	<p>Chemical is not used in the production units. Waste reduction strategy is addressed in the Sub-Chapter 10.2.1 Chemical waste, WESC manual (Rev. 1.2, 30 April 2021). The engine oil shall get changed by the specialist service vendor. The vendor shall collect the waste engine oil back to his garage for disposal as per Article 17, Wastes Control Act. Maintenance records of vessels are retained. Farmers are trained on this waste reduction strategy. Regular training on Awareness on ETP, farm training on management, waste and disease, e.g. 12-13 May 2021 to all farmers.</p> <p>Reference</p> <ul style="list-style-type: none"> - Vessel maintenance record - WESC Manual - Training record - Interview: Famers, Director of WESC

c	Chemicals and hydrocarbon spills		
	Guide post	There are some measures in place that can help to prevent spills of chemicals and hydrocarbons originating from the UoA.	There is a spill prevention and response plan in place for chemicals and hydrocarbons originating from the UoA.
	Met?	Yes	Yes
	Rationale	Referred to Target Level.	<p>Chemical is not used in the production units. Spillage preparedness and response plan is addressed in the Sub Chapter 10.2.3, WESC Manual (Rev. 1.2, 30 April 2021). Farmers are required to complete the Vessel Safety Training as per the Article 29, Vessel Safe work rules. All farmers have completed yearly safe work training. Certificates of completion are verified. Wando Eco-friendly Seafood Cooperative (WESC) has arranged training sessions for its member farmers. More than 10 trainings were provided to farmers for last calendar year. Prevention and response to spillage was noted in the training subjects. Any incident of oil spillage during the sea trip, farmers are required to report local coast guard immediately as per the article 63, Marine Environment Management Act. Phone number of local coast guard is indicated in the WESC Manual. Secondary containment is installed in each of the farm fuel storage area as observed during site visit. Training record on Fuel Spillage and Prevention is retained.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Training record

		<ul style="list-style-type: none"> - WESC Manual - Site observation: Farms, Fuel storage - Interview: Famers, Director of WESC
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PI 2.6 – Pest/s and disease/s management

PI 2.6		Pest/s and disease/s management	
Scoring Issue		Minimum	Target
a	Spread of pest/s and disease/s		
	Guide post	There is a partial strategy that is expected to prevent the spread of pest/s and disease/s.	There is a strategy that is expected to prevent the spread of pest/s and disease/s.
	Met?	Yes	Yes
	Rationale	Referred to Target Level.	<p>Prevention and response plan on pest and disease is addressed in the section 11, WESC Manual (Rev. 1.2, 30 April 2021). Farmers are trained on the prevention and response plan. Training records were available.</p> <p>Farmers regular work are the inspection of seaweeds in the farms. If disease or pest is observed, farmer shall immediately report to WESC and subsequently report to National Institute of Fisheries Science and Wando County. Contact person and number are indicated in the manual. The seaweed called 'Sargassum horneri' floats around and grows in the farms. Farmers actively remove this seaweed. The number of ropes installed in the respective farms shall not exceed the numbers indicated in the agreement with Fishery Village Association to prevent the decrease the quality and value of seaweeds cultured. This also helps to maintain the space between and among seaweeds and maintain good water flow.</p> <p>Head of Fisheries Seed Research Institute under Jeollanamdo Institute of Ocean & Fisheries Science confirms that seaweeds disease or pest are not reported.</p> <p>Reference</p> <ul style="list-style-type: none"> - WESC Manual - Site observation: Farms <p>Interview: Public officer in Wando County, Head of Fisheries Seed Research Institute, Farmers</p>

PI 2.7 – Energy efficiency

PI 2.7		Energy efficiency	
Scoring Issue		Minimum	Target
a	Energy use monitoring		
	Guide post	There is some information about energy use of the production unit.	There is evidence of energy use monitoring relative to production and ongoing effort to improve efficiency.
	Met?	Yes	No
	Rationale	WESC monitors energy use for each of the farmer and retains the records.	Efficient energy use plan is addressed in the Chapter 12, WESC manual (Rev. 1.2, 30 April

			<p>2021). The plan includes no speeding, no idling, periodic maintenance of vessel, etc. Farmers are trained on the plan. Training records are retained.</p> <p>Energy use are fuel for boat vessel, energy usage for trucks, crane, forklift, e.g. Tae Min Kim, July 2020 to May 2021, vessel gasoline: 105 litre, forklift: diesel: 20 litre, Truck: diesel: 15 litre.</p> <p>Fuel oil consumption is monitored consistently, and maintenance of vessel is implemented regularly.</p> <p>Production units use energy during primary processing and temporary storage on land. Electricity is consumed for lighting. e.g. Electricity or diesel use for seaweeds Energy uses are identified, and monthly energy log is developed to monitor the consumption. Energy sources and energy uses are indicated in the monthly energy log. Farmers record the energy consumption from July 2020. WESC Manual is updated to address the rules with regard to energy consumption and monitoring. In the section 12, WESC Manual (Rev 1.2, 20 April 2021), farmers are required to record energy consumption for vessel in the work log and for tool, equipment, and storage in the monthly energy log.</p> <p>There is evidence of energy use monitoring relative to production and ongoing effort to improve efficiency. A farmer only records frequency of energy use from July 2020 to May 2021 for vessels, forklift, truck and dehumidifier, energy consumption record, from July 2020 to May 2021, fuel for vessels, forklift, truck. Gasoline and electricity for dehumidifier, however, the fuel consumption was recorded on frequency of usage per month, but no quantity recorded.</p> <p>One condition is issued.</p> <p>There shall be evidence of energy use monitoring relative to production and ongoing effort to improve efficiency. The farmers should clearly record the fuel name and quantity of fuel consumed in the fuel consumption record template as well as daily work log.</p> <p>Reference</p> <ul style="list-style-type: none"> - WESC Manual - Energy consumption record - Work log - Site observation: Farms, Fuel storage <p>Interview: Farmers</p>
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b	Maintenance records of equipment		
	Guide post	There are maintenance records for equipment.	Maintenance records for equipment are up to date and available.
	Met?	Yes	Yes
	Rationale	Referred to Target.	Maintenance of equipment is stated in the Sub Chapter 12.2, WESC Manual (Rev. 1.2, 30 April 2021). Vessels and farm equipment

		<p>shall be regularly maintained, and the status shall be recorded in the work log.</p> <p>Vessels are maintained by service providers on a regular basis and maintenance records are up-to-date. E.g.</p> <p>Farmer Gwan Seop Jeong, name of vessel: Legend #2, Fishing Vessel Survey certificate, issued by President of Korea Maritime Transportation Safety Authority dated on 14 April 2021, valid until 27 April 2026.</p> <p>Regular service dated on 2 April 2021: regular service and oil change.</p> <p>Other equipment such as crane and working boat, etc. are regularly maintained by farmers. It is recorded in the work log.</p> <p>Reference</p> <ul style="list-style-type: none"> - WESC Manual - Vessel maintenance record - Work log - Site observation: Farms <p>Interview: Farmers</p>
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PI 2.8 – Translocation

PI 2.8		Translocations	
Scoring Issue		Minimum	Target
a	Impact of translocation activity		
	Guide post	The translocation activity is unlikely to introduce diseases, pests, pathogens, or non-native species into the surrounding ecosystem.	The translocation activity is highly unlikely to introduce diseases, pests, pathogens, or non-native species into the surrounding ecosystem.
	Met?	Select one	Select one
	Rationale	N/A. Translocation was not occurred.	N/A. Translocation is not occurring in the aquafarming sites. The seaweed seedling is from hatchery (Songmin & Wando Bada) to the farm. The distant is around 5 to 20 KM from hatchery to farm. There is no wild seed use as seedling in all 13 farms. Verified with farmers and stakeholder.

b	Translocation management strategy evaluation		
	Guide post	There is a partial strategy in place that is expected to protect the surrounding ecosystem from the translocation activity at levels compatible with the translocation impact target level of performance defined in SIa (target level).	There is a strategy in place that is expected to protect the surrounding ecosystem from the translocation activity at levels compatible with the translocation impact target level of performance defined in SIa (target level).
	Met?	Select one	Select one
	Rationale	N/A. Translocation was not occurred.	This is not applicable. Because translocation is not occurring in the aquafarming sites. The seaweed seedling is from hatchery (Songmin & Wando Bada) to the farm. The distant is around 5 to 20 KM from hatchery to farm. There is no wild seed use as seedling in all 13 farms. Verified with farmers and stakeholder.

PI 2.9 – Introduction of alien species

PI 2.9		Introduction of alien species	
Scoring Issue	Minimum	Target	
a	Management of alien species		
	Guide post	There is a partial strategy in place to prevent progression of ecosystem impacts from occurring due to the presence of the alien species.	There is a strategy in place to prevent progression of ecosystem impacts from occurring due to the presence of the alien species.
	Met?	Yes	Yes
	Rationale	UoA is not targeting alien species. Use only <i>Undaria pinnatifida</i> and <i>Saccharida japonica</i> for cultivation	<p>There is a restriction to bring alien species into marine systems and increase their habitats or numbers. Any intends to import or bring in alien shall obtain permission from the Ministry of Oceans and Fisheries according to Article 23 (Management of Organisms Disturbing Marine Ecosystems), Conservation and Management of Marine Ecosystem Act. The translocation of fishery resources is restricted as per Article 35 (Orders to Recover Fishery Resource) in Fishery Resources Management Act. The translocation of seaweeds is required to get the approval from National Institute of Fisheries Science as per Fishery Resource Transplantation Approval Standard (National Institute of Fisheries Science Notification Number 2020-2).</p> <p>It is addressed in Sub Chapter 7.2, WESC Manual that member farmers shall farm the seaweed which is approved by the government and seedling shall be purchased from suppliers who can demonstrate that the seedling is not alien species. Farmers shall secure the evidence document of it. Ropes and gears used for the production shall be brought up to land for maintenance and for prevention of unintended spread of spores which may be attached in the gears and ropes.</p> <p>Training record: 1. WESC Manual Training dated on 30 July 2020 (Office), 19 August 2020 (Office) & 14-16 September 2020 (Farm), include disease & waste management. Trainer Mr Kim & Ms Park.</p> <p>Verified Farmers and stakeholder that there was no new species bought to the farm so far.</p> <p>UoA is not targeting alien species. Use only <i>Undaria pinnatifida</i> and <i>Saccharida japonica</i> for cultivation.</p> <p>Reference</p> <ul style="list-style-type: none"> - Training record - WESC Manual - The national law information center (www.law.go.kr) - National Institute of Fisheries Science Notification Number 2020-2 - Site observation: Farms <p>Interview: Farmers</p>

Principle 3: Effective management

PI 3.1 – Legal and/or customary framework

PI 3.1		Legal and/or customary framework	
Scoring Issue		Minimum	Target
a	Compatibility of laws or standards with effective management		
	Guide post	There is an effective national legal system and a framework for cooperation , with other parties where necessary, to deliver management outcomes consistent with the Principles of this standard.	There is an effective national legal system and organised and effective cooperation , with other parties where necessary, to deliver management outcomes consistent with the Principles of this standard.
	Met?	Yes	Yes
	Rationale	<p>Korea is a signatory party to The Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (UNFSA) and Korea is a signatory party to United Nations Convention on the Law of the Sea (UNCLOS). Korea has ratified 32 ILO Conventions.</p> <p>There are national laws governing the actions of the authorities and actors involved in managing the Units of Assessment. These include Fishery Management Act, Fishing Ground Management Act and Marine Environment Management Act.</p> <p>The farms in the UoA are governed by a single jurisdiction of Republic of Korea. In Korea, there is no indigenous people. The farms don't harvest the wild stocks, but farm the seaweeds in the sea.</p> <p>Reference: The national law information center (www.law.go.kr)</p>	<p>Korea is a signatory party to UNFSA and UNCLOS and cooperates with other parties to conventions as required by the conventions. Farming is managed and controlled under national legal framework such as Fishery Management Act, Fishing Ground Management Act and Marine Environment Management Act.</p> <p>Ministry of Oceans and Fisheries and its sub-organizations, and Ministry of Foreign Affairs internally cooperate with other governments and international organizations.</p> <p>The control procedure is defined in Wando Eco-friendly Seafood Cooperative (WESC) Manual (Version 1.2, dated 30 April 2021). Legal requirements from the national and international level are identified in the manual and communicated to the farmers in the UoA. Legal requirements in Korea.</p> <ul style="list-style-type: none"> - "Fishery Management Act" - "Act on the indication of the origin of agricultural and marine products" for the indication of the origin of aquaculture products, - "Act on the Agricultural and Fishery Products Quality Control" - "Agriculture, Forestry and Fisheries Credit Guarantee Act" - " Act on the Agricultural and Fishery Products Quality Control" - "Labor standard act" <p>Reference:</p> <ul style="list-style-type: none"> - UNFSA - UNCLOS - 32 ILO Conventions (Ratifications of ILO conventions: Ratificat https://www.ilo.org/dyn/normlex/en/f?p=NO_RMLEXPUB:11200:0::NO::P11200_COUNTRY_ID:103123ions for Republic of Korea) - Fishery Management Act - Fishing Ground Management Act - Marine Environment Management Act - Website of Ministry of Oceans and Fisheries (www.mof.go.kr)

			- Website of Ministry of Foreign Affairs (www.mofa.go.kr) The national law information center (www.law.go.kr)
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b	Respect for rights																							
	Guide post	The management system has a mechanism to generally respect the legal rights created explicitly or established by custom of people dependent on harvesting or farming for food or livelihood in a manner consistent with the objectives of Principles of this standard.	The management system has a mechanism to observe the legal rights created explicitly or established by custom of people dependent on harvesting or farming for food or livelihood in a manner consistent with the objectives of Principles of this standard.																					
	Met?	Yes	Yes																					
	Rationale	<p>The respect of laws is stated in the Chapter 4, WESC Manual (Rev. 1.2, 30 April 2021). All farms in the units of assessment has valid licenses and agreement with respective fishery village associations. The legal rights are verified with license and the signed agreement with respective fishery village associations. Fishery village association is an organization to which the authority to manage the aquafarmings in a village is granted within the legal and customary framework by the local government. Wando Eco-friendly Seafood Cooperative (WESC) is committed to respect these frameworks in the manual.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Farmer Name</th> <th style="text-align: left;">License Number</th> </tr> </thead> <tbody> <tr> <td>Farm of Mr. Myung-Jin KIM</td> <td>No.13670 No.13672</td> </tr> <tr> <td>Mr. Tae-Min KIM & Ms. Bo-Ae JUNG</td> <td>No. 11670</td> </tr> <tr> <td>Farm of Mr. Seung-Ho JEONG</td> <td>No. 13830</td> </tr> <tr> <td>Farm of Mr. Kyung-Un KIM</td> <td>No. 13690</td> </tr> <tr> <td>Farm of Mr. Gwan-Seop JEONG & Ms. Seon-Ae YU</td> <td>No. 13690</td> </tr> <tr> <td>Farm of Mr. Choong-Hun CHOI & Ms. Mi-So LEE</td> <td>No. 13661</td> </tr> <tr> <td>Farm of Mr. Yong-Young KIM</td> <td>(No. 13572)</td> </tr> <tr> <td>Farm of Mr. Hyun-Seung KIM & Ms. Jeong-Young LEE</td> <td>No. 13572 No. 14033</td> </tr> <tr> <td>Farm of Mr. Young-Soo JEON</td> <td>No. 13794</td> </tr> <tr> <td>Farm of Mr. Hong-Joo JEON</td> <td>No. 13794 No. 14033</td> </tr> </tbody> </table>	Farmer Name	License Number	Farm of Mr. Myung-Jin KIM	No.13670 No.13672	Mr. Tae-Min KIM & Ms. Bo-Ae JUNG	No. 11670	Farm of Mr. Seung-Ho JEONG	No. 13830	Farm of Mr. Kyung-Un KIM	No. 13690	Farm of Mr. Gwan-Seop JEONG & Ms. Seon-Ae YU	No. 13690	Farm of Mr. Choong-Hun CHOI & Ms. Mi-So LEE	No. 13661	Farm of Mr. Yong-Young KIM	(No. 13572)	Farm of Mr. Hyun-Seung KIM & Ms. Jeong-Young LEE	No. 13572 No. 14033	Farm of Mr. Young-Soo JEON	No. 13794	Farm of Mr. Hong-Joo JEON	No. 13794 No. 14033
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		Farm of Mr. Hyuk SEO	No. 13693	
		Farm of Mr. Ik-Jin Jo	No. 13671	
		Farm of Mr. Myeong-Chul JI & Ms. Dal-Lae KI	No. 11341	
		- Wando Eco-friendly Seafood Cooperative (WESC) Manual (Version 1.2, dated 30 April 2021)		

PI 3.2 – Decision-making processes

PI 3.2		Decision-making processes	
Scoring Issue	Minimum	Target	
a	Objectives		
	Guide post	Objectives to guide decision-making, which are consistent with achieving the outcomes expressed in the Principles of this standard, are implicit within the production unit specific management system.	Short and long-term objectives, which are consistent with achieving the outcomes expressed in the Principles of this standard, are explicit within the production unit's specific management system.
	Met?	Yes	Yes
	Rationale	<p>The purpose of Wando Eco-friendly Seafood Cooperative (WESC) is to produce safe and environmentally friendly seafoods to contribute the sustainable development of the country and to support the local and national economy (Article 2.1 Purpose of WESC).</p> <p>WESC has established the 1st strategic objectives as follows;</p> <p>Objective 1. Conservation of Sustainable Marine Environment</p> <p>Objective 2. Establishing responsible aquafarming practice</p> <p>Objective 3. Increase in supply and sales of certified seafoods</p> <p>The farmers in the production units are aware of the purpose of WESC and the objectives.</p> <p>The objectives are addressed in the Article 2.4.1 of WESC Manual.</p>	<p>The purpose of Wando Eco-friendly Seafood Cooperative (WESC) established on 14 December 2018 is stated in the Articles of incorporation which is registered in Jellanamdo province.</p> <p>The strategic objectives for the period of 2019 and 2022 are clearly addressed in the article 2.4.1, WESC manual (Rev. 1.2, 30 April 2021).</p> <p>Respective targets and actions plan are established and documented to achieve objectives in the article 2.4.2, WESC manual.</p> <p>Targets include;</p> <p>Objective 1. Conservation of Sustainable Marine Environment;</p> <ul style="list-style-type: none"> To implement monitoring of Marine environment by 2020/Achieved. To establish waste reduction and waste collection system by 2022/Partially achieved, To use environmentally buoys (replacement of Styrofoam buoy) – by 2022/Partially achieved, <p>Objective 2. Establishing responsible aquafarming practice;</p> <ul style="list-style-type: none"> To establish Wando ASC-MSC Seaweed Council and local community forum by 2021/Partially achieved, To develop cooperative member training programs by 2022/On-going <p>Objective 3. Increase in supply and sales of certified seafoods</p> <ul style="list-style-type: none"> To expand the ASC-MSC Seaweeds certification to newly joining cooperative member farms by 2022/On-going

		<ul style="list-style-type: none"> To increase the certified products in the WESC by 2022/On-going To secure more clients who sell Eco-friendly Seafood by 2022/On-going <p>The progress of achieving the objectives and targets are monitored regularly.</p> <p>Reference:</p> <ul style="list-style-type: none"> WESC Manual Articles of Incorporation for WESC <p>Interview: Farmers, Director of WESC</p>
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b	Decision-making processes		
	Guide post	There are some decision-making processes in place that result in measures and strategies to achieve the production unit specific objectives.	There are established decision-making processes that result in measures and strategies to achieve the production unit specific objectives.
	Met?	Yes	Yes
	Rationale	<p>Governance and decision-making process is addressed in the Articles of incorporation (No date, No revision number).</p> <p>The highest governing body in WESC is General Assembly which is the final authority in the management and administration of the affairs of the co-operative. It is composed of members who are entitled to vote, duly assembled and constituting quorum.</p> <p>The role of Board of Directors is to set grand strategic goals and develop an overarching vision for WESC. The board of directors bears the responsibility for moving the organization in a direction, as defined by the cooperative's strategic objectives. These governance structures are addressed in Chapter 4, General Assembly and Board of Directors, the Articles of incorporation.</p> <p>Reference:</p> <ul style="list-style-type: none"> Articles of incorporation (No date, No revision number) Meeting minutes of WESC 	<p>Governance and decision-making process is addressed in Chapter 4. General Assembly and Board of Directors, the Articles of Incorporation. Authority, role and responsibility of General Assembly, Board of Directors are clearly described in the Articles of Incorporation. In addition, the organization called 'Environmentally responsible seafoods committee' is established under Board of Directors.</p> <p>Main roles of 'Environmentally responsible seafoods committee' are to assist Board of Directors and member farmers to comply with the Principles of ASC-MSC Seaweeds Standard. The organizational structure and roles and responsibilities of Environmentally responsible seafoods committee are documented in the WESC Manual (Rev. 1.2, 30 April 2021).</p> <p>The committee has the bi-monthly meeting. The agenda for meeting is indicated in the manual.</p> <p>Reference:</p> <ul style="list-style-type: none"> WESC Manual (Rev. 1.2, 30 April 2021) Interview: Farmers in UoA, President of WESC Meeting minutes of Environmentally responsible seafoods Committee

c	Responsiveness of decision-making processes		
	Guide post	Decision-making processes respond to serious issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner, and take some account of the wider implications.	Decision-making processes respond to all issues identified in relevant research, monitoring, evaluation and consultation, in a transparent, timely and adaptive manner, and take account of the wider implications of decisions.
	Met?	Yes	Yes
	Rationale	Governance and decision-making process in the WESC Manual includes	In addition to the decision-making process on the issues raised by stakeholder, all member

		<p>how to respond stakeholders' request. Environmentally responsible seafoods committee in WESC shall review and respond the issues raised by stakeholders. Priority should be given to the request. The discussion process and result shall be disclosed to members of WESC. The decisions made can be shared with other stakeholders with approval of the committee chairman unless it is confidential.</p> <p>Decisions made by Environmentally responsible seafoods committee are reported to the Board of Directors and subsequently reported to the General Assembly of WESC.</p> <p>Environmentally responsible seafoods committee meeting minutes and stakeholder grievance log show that there has been no serious issues identified in relevant research, monitoring, evaluation and consultation.</p> <p>Reference</p> <ul style="list-style-type: none"> - WESC Manual - Articles of incorporation (No date, No revision number) - Meeting minutes of Environmentally responsible seafoods committee - Stakeholder grievance log 	<p>farmers are required to report all issues to Environmentally responsible seafoods committee in WESC. (WESC Manual, Chapter 5.3).</p> <p>It is stated in the Chapter 5.1 The purpose of Environmentally responsible seafoods committee, WESC Manual that the committee shall ensure the principles of Transparency, Accountability and Responsiveness in all decision-making processes. The committee has a meeting monthly to identify issues which WESC responds.</p> <p>There has been no serious or negative issues identified in relevant research, monitoring, evaluation and consultation.</p> <p>The meeting minutes of Environmentally responsible seafoods committee, Board of Directors and General Assembly show that the defined decision-making process is implemented and response to the issues identified is to relevant stakeholders made in a timely and adaptive manner. The wider implications are taken into account when the decision is made and precautionary approach is taken.</p> <p>Reference</p> <ul style="list-style-type: none"> - WESC Manual - Articles of incorporation (No date, No revision number) - Meeting minutes of General Assembly of WESC - Meeting minutes of Board of Directors - Meeting minutes of Environmentally responsible seafoods committee - Stakeholder grievance log -
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d	Use of precautionary approach		
	Guide post		Decision-making processes use the precautionary approach and are based on the best available information.
	Met?		Yes
	Rationale		<p>WESC identifies issues in a proactive way. Small groups of member farmers are formed by location and have regular and periodic meetings to exchange information and to prevent foreseeable issues. (Chapter 5.3, WESC Manual)</p> <p>According to the WESC Manual sub-chapter 14.2.2, the Environmentally responsible seafood committee is required to interview relevant stakeholders during the conflict resolution process and to reflect the collected information in the report submitted to the Board of Directors</p> <p>Wando Eco-friendly Seafood Cooperative (WESC) has formed stakeholder roundtable, called 'Wando ASC-MSC Seaweeds</p>

		<p>Committee' in which various stakeholder participate. The stakeholders include regulator, researcher, NGO, and industry association, etc. The main purpose of this stakeholder roundtable is to consult various stakeholders to get information or advice with regards to sustainable management of marine environment, sustainable operation of seaweeds farms, societal impact on local community by seaweeds farms, etc. The information gathered from this stakeholder roundtable is used to support the decision making.</p> <p>Reference</p> <ul style="list-style-type: none"> - WESC Manual - Articles of Incorporation for WESC - Meeting minutes of General Assembly, - Meeting minutes of Board of Directors, - Meeting minutes of Environmentally responsible seafoods committee <p>Interview: Farmers, Director of WESC</p>
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e	Accountability and transparency of management system and decision-making process		
	Guide post	<p>Some information on the production unit's performance and management action is generally available on request to stakeholders.</p>	<p>Information on the production unit's performance and management action is available on request to stakeholders, and explanations are provided for any actions or lack of action associated with findings and relevant recommendations emerging from research, monitoring evaluation and review activity.</p>
	Met?	Yes	Yes
	Rationale	<p>It is stated in the Chapter 5.2, WESC manual (Rev. 1.2, 30 April 2021) that decision making process and result shall be disclosed to WESC members and should be available to stakeholders on request. A general summary of information on subsidies, allocation, compliance and farming management decisions should be available to stakeholders on request. Environmentally responsible seafoods committee holds responsible for decision-making on getting the information available. So far, there has been no request of the information from stakeholders. WESC have disclosed its activities in its website(blog.naver.com/asc7177).</p>	<p>It is stated in the Chapter 5.2, WESC manual (Rev. 1.2, 30 April 2021) that decision making process and result shall be disclosed to WESC members and should be available to stakeholders on request. In addition to a general summary of information on subsidies, allocation, compliance and farming management decisions, the information on decisions, production unit data supporting decisions, and the reasons for decisions, should be made available to all stakeholders on request.</p> <p>The information on the production unit's performance and management action was presented to local stakeholders in the Wando ASC-MSC Council.</p> <p>Reference</p> <ul style="list-style-type: none"> - WESC Manual - Articles of Incorporation for WESC - Meeting minutes of General Assembly, - Meeting minutes of Board of Directors, - Meeting minutes of Environmentally responsible seafoods committee - WESC Website (blog.naver.com/asc7177) <p>Interview: Farmers, Director of WESC</p>

f	Approach to disputes		
	Guide post	Although the management authority or production unit may be subject to continuing court challenges, it is not indicating a disrespect or defiance of the law by repeatedly violating the same law or regulation necessary for the sustainability of the production unit.	The management system or production unit is attempting to comply in a timely fashion with judicial or administrative tribunal decisions arising from any legal challenges.
	Met?	Yes	Yes
	Rationale	There is no legal dispute in the production units.	<p>The respect of laws is stated in the Chapter 4, WESC Manual (Rev. 1.2, 30 April 2021). It is stated in the Sub-chapter 5.2.2 WESC Manual that Environmentally responsible seafoods committee responds the legal dispute in a timely manner in accordance with the law of Korea.</p> <p>Director of WESC states that there is not legal dispute or legal challenge in the production units.</p> <p>Public officer from Wando County and neighbour interviewed say that they have not heard of any legal dispute with WESC.</p> <p>Reference - WESC Manual Interview: Farmers, Director of WESC, Public officer from Wando County, Neighbour farmer</p>

PI 3.3 – Compliance and enforcement

PI 3.3		Compliance and enforcement				
Scoring Issue	Minimum	Target				
a	MCS implementation					
	Guide post	Monitoring, control and surveillance (MCS) mechanisms exist and are implemented in the production unit, and there is a reasonable expectation that they are effective.	A monitoring, control and surveillance system (MCS) has been implemented in the production unit and has demonstrated an ability to enforce relevant management measures, strategies and/or rules.			
	Met?	Yes	Yes			
	Rationale	Monitoring, control and surveillance (MCS) mechanisms are addressed in the Section 6, WESC Manual (Rev. 1.2, 30 April 2021). Environmentally responsible seafoods committee monitors the compliance of local laws and customary laws by member farmers. The committee has appointed an internal auditor who inspects the farms, and conducts interview of farmers and workers, neighbour if necessary. Farmers state that the auditor performs internal audit.	<p>The internal audit was performed in December 2020 through May 2021 by the external auditor.</p> <p>Simple report in the meeting minutes of Environmentally responsible seafood committee shows that the audit agenda covers the compliance items.</p> <p>The director of WESC and farmers say that the audit results were shared with respective farmers on-site.</p> <p>Regular audit is regulated in the sub-chapter 6.2.1, WESC Manual (Rev. 1.2, 30 April 2021). WESC manual states that the audit is commissioned to external party. The audit report, called 'Producer and aquaculture farm Audit report' shall be prepared and reported to Environmentally responsible seafood committee. The internal audit reports are retained.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Dates</td> <td style="width: 50%;">Farms in</td> </tr> <tr> <td>9 December 2020</td> <td>Yaksan Island</td> </tr> </table>	Dates	Farms in	9 December 2020
Dates	Farms in					
9 December 2020	Yaksan Island					

				Sinji Island
			16 December 2020	Geumil Island
			19 January 2021	Geumil Island
			28 March 2021	Yaksan Island
			1 April 2021	Geumil Island
			5 April 2021	Sinji Island
			10 May 2021	Yaksan Island
			13 May 2021	Geumil Island
			Reference - WESC Manual - Internal audit report Interview: Farmers, Auditors	

b	Sanctions		
	Guide post	Sanctions to deal with non-compliance exist and there is some evidence that they are applied.	Sanctions to deal with non-compliance exist, are consistently applied , and thought to provide effective deterrence.
	Met?	Yes	Yes
	Rationale	<p>There has been no violation of law or regulation in the production units. The public officer interviewed states that violation of law or regulation in the production units is not reported. Internal audits are performed frequently to prepare the certification audit. The audits were planned and performed by location in 2020 and 2021. Legal requirements and management systems requirements are audited. Corrective actions are taken against the nonconformances observed. The internal audit reports are retained. The audit reports demonstrate that legal noncompliance is not observed. Common findings include insufficient safety precaution, no record of daily log, etc.</p> <p>Reference - WESC Manual - Internal audit report - Work log - Interview: Farmers, Auditors, Public officer from Wando County</p>	<p>Mechanism of sanctions is described in the Sub-chapter 6.2.3, WESC manual (Rev. 1.2, 30 April 2021). If any violation of law is detected or reported by internal auditor, or stakeholder, initially verbal warning is given and secondly written warning letter is issued. Disciplinary committee meeting will be held in case of consistent non-compliances. The internal auditor will investigate the case and report to disciplinary committee. The sanction is determined in the disciplinary committee, based on the investigation report and the testimony of the member farmer who violates the law. There has been no case against which disciplinary committee meeting is held, as non-compliance has not been detected nor reported in the production units. Farmers in the production units are aware of this mechanism of sanctions. Corrective actions against the findings from internal audits were requested by the auditor. Farmers have taken the corrective actions. The findings are related to nonconformance with management system requirements. Legal noncompliance finding is not observed from the internal audit. Corrective actions are consistently taken. Farmers are aware of the purpose of internal audit and can state what corrective actions were taken.</p> <p>Reference - WESC Manual - Internal audit report - Interview: Farmers, Auditors, Public officer from Wando County</p>

c	Compliance		
	Guide	Production units are generally thought to comply with the	Some evidence exists to demonstrate production units comply with the management

	post	management system under assessment, including, when required, providing information necessary for effective management.	system under assessment, including, when required, providing information of importance to the effective management of the production unit.
	Met?	Yes	Yes
	Rationale	<p>Farmers can state the management system established in WESC. Record regarding Non-compliance or non-conformance is not noted during the document review.</p> <p>A printed copy of WESC manual is issued to each members of WESC. The director of WESC explains that member farmers are very cooperative and their support is of help of effective management of WESC.</p>	<p>Some evidence to demonstrate production units comply with the management system is verified. The evidence include meeting minutes, training records, internal audit report, statement made by the director of WESC and member farmers of WESC.</p> <p>Regular meetings are held to share the information and discuss the resolutions on issues. Regular trainings are provided to farmers regarding the management system and ASC-MSD Seaweeds standard. Internal audit is performed to identify if non compliance exists. The records of these activities are retained.</p> <p>Farmers state that all requested information is provided to WESC.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Training record - WESC Manual - Internal audit report - Interview: Farmers, Auditors, Director of WESC

d	Systematic non-compliance		
	Guide post		There is no evidence of systematic non-compliance.
	Met?		Yes
	Rationale		<p>No evidence of systematic non-compliance is noted from document review, site observation and interview of stakeholders including neighbour, public officials, and farmers, director of WESC.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual - Internal audit report - Interview: Farmers, Auditors, Director of WESC

Principle 4: Social responsibility

PI 4.1 – Child labour

PI 4.1		Child labour	
Scoring Issue	Minimum	Target	
a	Child labour		
	Guide post	No incidences of child labour or young worker abuse are found to have occurred.	There is evidence that the risk of child labour and young worker abuse has been minimised.
	Met?	Yes	Yes
	Rationale	Child labour or young worker is not observed.	During the site visit, child labour and juvenile worker are not observed. A neighbour interviewed states that no child labour or

	<p>Child labor remediation policy is stated in the sub-chapter 13.2 Regulation and Guidance, the WESC manual. Definition of child in Korea is under 15 including those under the age of 18 who are attending a middle school pursuant to the "Elementary and Secondary Education Act" regulated in the Article 64 Minimum Age and Employment Permit, Labor Standard Act.</p> <p>The age of worker is verified with identification issued by government. Normally government issued ID, Drivers license, Passport, Foreigner registration card. Photo copies of identification are retained by farmers who used to hire workers.</p> <p>Currently there is only one permanent worker (Migrant worker) in Wando Eco-friendly Seafood Cooperative (WESC) and in the aquafarms in the units of assessment.</p> <p>Photocopy of his identification shows that he is above 18 years old. As of the date of on-site audit, he is 35 years old.</p> <p>Child labor or young worker is not observed during the site visit to Farms and drying process area.</p> <p>Farmers state that they have never employed a child labour or juvenile worker.</p> <p>Reference: - Interview: Worker, Farmers</p> <p>Observation: Farms, Drying area</p>	<p>juvenile worker is observed in the production units.</p> <p>A worker confirms not to have seen any child labour or juvenile worker working in the production units. He confirms that he is over 33 years old when joining the farm.</p> <p>Worker register and copy of workers' ID show that the ages of worker is above 18 years old. It is addressed in the sub-chapter 13.2.2, WESC Manual (Rev. 1.2, 30 April 2021) that a worker under 18 years old shall not be employed. Juvenile worker shall not be assigned to hazardous job, if hired as a part timer.</p> <p>Farmers state that they have never employed a child labour or juvenile worker. Farmers are aware of the policy on a child labor and young worker in the WESC manual.</p> <p>Public officer from Wando County states that any incident of forced, bonded or compulsory labour is not reported.</p> <p>Nonconformity on child labour or young labour in the production units is not reported.</p> <p>Reference: - WESC Manual - Copies of ID - Internal audit report - Site observation: Farms, Sun-dry fields, Temporary storage</p> <p>Interview: Neighbour Seaweed farm owner, Farmers, Worker, Public officer from Wando County</p>
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PI 4.2 – Forced, bonded or compulsory labour

PI 4.2 Forced, bonded, or compulsory labour				
Scoring Issue	Minimum	Target		
a	Incidences and risk of forced, bonded, or compulsory labour			
	Guide post	No incidences of forced, bonded or compulsory labour are found to have occurred.	There is evidence that the risk of forced, bonded or compulsory labour has been minimised.	
	Met?	Yes	Yes	
	Rationale	<p>Employment contract is written in Korean and East Timor Language which are the primary languages of the worker in the production units. The migrant worker is hired via Employment Permit System. Standard employment contracts are used for workers. The worker is not required to pay any fees under Employment Permit System operated by Ministry of Employment and Labor.</p> <p>Wages were paid monthly, which is verified with bank transaction records.</p>	<p>During the site visit, forced, bonded or compulsory labour is not observed. A neighbour interviewed states that forced, bonded or compulsory labour is not observed in the UoA.</p> <p>The worker interviewed states that he came to Korea under Employment Permit System and any fee is not paid. He confirms that any original identity documents are not withheld by the farmer. He states that the employment can be terminated as per Employment Permit System rules. The worker confirms that any part of the salary, deposit or any valuables are</p>	

		<p>Deduction is not made from the agreed wage.</p> <p>He is the only worker in WESC now. The worker states that any fee is not paid to get the job. He confirms that any original identity documents are not withheld by the farmer(his employer). Both the worker and the farmer state that the employment can be terminated at worker's discretion. The worker confirms that any part of the salary, deposit or any valuables are not withheld by the farmer. The worker confirms that he is free to leave the workplace when he doesn't want to work, but he wants to work here further. No deduction is made from the wage.</p> <p>President of WESC states that any complaint from worker regarding unreasonable deduction from the wage, withholding wages or deposit is not received.</p> <p>Forced, bonded or compulsory labor are not observed.</p> <p>Reference: - Interview: Worker, Farmer, President of WESC</p> <p>Site Observation: Farms, Drying area, temporary storage</p>	<p>not withheld by owners and that he is free to leave the workplace when he doesn't want to work anymore. No deduction is made from the wage. He states to have received a copy of the policy against forced, bonded and compulsory labour. He understands the policy clearly.</p> <p>It is addressed in the sub-chapter 13.21, WESC Manual (Rev. 1.2, 30 April 2021) that Standard Employment Agreement shall be applied with employee. Worker can terminate the employment contract at his/her discretion. Policy on prevention of forced, bonded or compulsory labor is stated in the Article 13.2.4 of the WESC Manual.</p> <p>Public officer from Wando County states that any incident of forced, bonded or compulsory labour is not reported.</p> <p>Internal audit reports show that no Nonconformity on forced, bonded or compulsory labour in the production units is not reported.</p> <p>Reference: - WESC Manual - Internal audit report - Site observation: Farms, Sun-dry fields, Temporary storage</p> <p>Interview: Neighbour Seaweed farm owner, Farmers, Worker, Public officer from Wando County</p>
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PI 4.3 – Discrimination

PI 4.3		Discrimination	
Scoring Issue	Minimum	Target	
a	Incidences and risk of discrimination		
	Guide post	No incidences of discrimination are found to have occurred.	There is evidence that the risk of discrimination covering all aspects of potential discrimination has been minimised.
	Met?	Yes	Yes
	Rationale	<p>Employment contracts, payroll records, training records for farmers and workers are retained. A worker interviewed states that there has been no case of discrimination. A register of complaints is prepared but there is no case filed.</p> <p>Farmers state that they understand the policy on Prohibition of discrimination.</p> <p>All the records are retained more than 1 year and available.</p> <p>Reference: - Employment contracts - Payroll records - Training records</p>	<p>A worker interviewed states that discrimination was not exercised.</p> <p>Policy on prohibition of discrimination is addressed in the Sub-chapter 13.2, WESC Manual (Rev. 1.2, 30 April 2021).</p> <p>The policy states that cooperative members shall not engage in or support discrimination at any point of the employment stage based on the national origin, religion, disability, gender, sexual orientation, union membership, political affiliation or age. The procedures to raise, file and respond to a discrimination complaint is addressed in the manual.</p> <p>Training records (materials and training reports) are retained. Subject on Discrimination is noted from the records.</p> <p>A neighbour interviewed states that seasonal workers and part time workers are mainly</p>

		<ul style="list-style-type: none"> - Complaint/Grievance log - Interview: Worker, Farmers - Observation: Farms, Drying process area 	<p>neighbour in the village or family members or relatives. Discrimination doesn't occur.</p> <p>Internal audit reports show that no Nonconformity on discrimination in the production units is not reported.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual - Internal audit report - Interview: Worker, Farmers, Neighbour <p>Observation: Farms, Drying process area</p>
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PI 4.4 – Health, safety and insurance

PI 4.4		Health, safety, and insurance	
Scoring Issue	Minimum	Target	
a	Safe and healthy working and living environment for workers		
	Guide post	The employer provides a safe and healthy working and living environment (where accommodation is provided) for workers.	
	Met?	Yes	
	Rationale	<p>Immediate hazards are not observed from the production units during the site visit. A worker interviewed states that he can remove himself from immediate serious dangers. Farmers and the worker are aware of the hazards associated with works such as 'falling into water on the sea or while landing', 'slippery hazard especially harvesting work', 'hit by objects during lifting work', 'injury due to manual handling of heavy objects', etc. Farmers and the worker are supposed to wear life vest while on board. Life vest is prepared on the vessel. Farmers are trained on the operation of lifting equipment in the port by local authority. The worker states he was provided with a living quarter, food and drinking water by his employer. The living quarter is inspected and found clean and safe. Vessel Portal Service (VPS) system or GPS is installed in the vessels used for farming. The local coast guard can monitor the location of vessels with VPS system and the VPS system helps farmers navigate the farm areas. If a vessel is overturned or sank, coast guard immediately send a rescue team. Vessels are basically not allowed to go to sea when Wind/Storm/Typhoon watch or warning is issued. Farmers state that they don't normally go to sea even when it rains. The lowest temperature in winter is negative 1 to zero Celsius</p>	

		<p>degree (-1 - 0 °C) in average in Wando county area. Cold stress in the winter and COVID-19 are assessed as medium risk. Countermeasures to prevent cold stress and COVID-19 infection are prepared in the manual and implemented. All farmers and worker are supposed to wear face mask.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Weather Data Open Portal (https://data.kma.go.kr/), Korea Meteorological Administration - WESC Manual (Ver. 1.2, dated 30 April 2021) - Interview: Farmers, Worker 	
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b	Health and safety records and corrective action		
	Guide post	<p>There is evidence that health and safety related accidents and violations are recorded and corrective action is taken when necessary. No immediate and serious dangers to personnel health or safety were identified.</p>	<p>Hazards to personnel health and safety are known. Accidents are analysed for root causes. The root causes are addressed and remediated to prevent future accidents of a similar nature. All incidences including minor accidents are included. Records are complete and accurate.</p>
	Met?	Yes	Yes
	Rationale	<p>Farmers state that there has been no health and safety related accidents or violation. A worker interviewed explains that he has not experienced any accident in the farm. A neighbour interviewed states that they are not aware of accidents from the farms in the unit of assessment.</p> <p>Immediate serious hazards are not observed from the production units during the site visit.</p> <p>Regular internal audits are conducted of which scope includes Health & Safety in order to ensure the effectiveness of Health & Safety program. The audit findings are reported to Environmentally responsible seafoods committee in Wando Eco-friendly Seafood Cooperative (WESC) and corrective actions are followed up by Environmentally responsible seafoods committee. The meeting minute is verified.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual - Internal audit report - Meeting minute of Environmentally responsible seafoods committee in WESC - Training records - Work log 	<p>Farmers and the worker are aware of the hazards associated with works such as 'falling into water on the sea or while landing', 'slippery hazard especially harvesting work', 'hit by objects during lifting work', 'injury due to manual handling of heavy objects', etc.</p> <p>Farmers in the unit of assessment state that they can identify the work-related hazards. The safety responsible and the health responsible are appointed respectively in Wando Eco-friendly Seafood Cooperative (WESC).</p> <p>Trainings on health and safety are conducted to member farmers and workers, which is verified with training records and daily work log. (Please see PI 4.4 c for training dates and subjects).</p> <p>There has been no safety accidents or violations. Farmers state that they try to prevent accident. If it happens, root cause will be identified and removed to prevent recurrence according to the Manual (Article 13.2.6 Health, Safety and Insurance). The procedure addresses that any accident shall be reported to Wando Eco-friendly Seafood Cooperative (WESC) and recorded for analysis and training/communication. No accident reports are observed during the audit.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Internal audit report

	<ul style="list-style-type: none"> - Interview: Famers and worker, Neighbour Seaweed farmer, Officer from Wando County, the Safety Responsible of WESC, the Health Responsible of WESC, Director of WESC - Site observation: Farms, Sun-dry fields, Temporary storage 	<ul style="list-style-type: none"> - Meeting minute of Environmentally responsible seafoods committee in WESC (dated on 12 May 2021) - Training records - Work log - Interview: Famers and worker in UoA, Neighbour Seaweed farmer, Officer from Wando County, the Safety Responsible of WESC, the Health Responsible of WESC, Director of WESC - Site observation: Farms, Sun-dry fields, Temporary storage
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C	Occupational health and safety assessment and personnel training											
	Guide post	There is evidence that personnel are trained effectively on health and safety topics related to their role, responsibilities and activities.	<p>Formal and regular training courses are undertaken. Risk assessments are documented and/or certified. Personnel are appointed to apply health and safety risk assessment, which may include an overseeing management committee, first aiders and/or fire marshals.</p> <p>Special risks associated with changing workplace or worker condition, such as expectant mothers, will have due consideration.</p>									
	Met?	Yes	Yes									
	Rationale	<p>Wando Eco-friendly Seafood Cooperative (WESC) has arranged training sessions for its member farmers. More than 10 trainings were provided to farmers for last 1 year. Health and Safety topics are noted in the training subjects. Training records are retained.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;"><u>1st training</u> • ASC-MSC Seaweed Standard</td> <td style="width: 30%;">31 July 2020</td> </tr> <tr> <td><u>2nd training</u> • Sustainable farming • Marine environment in Wando region</td> <td>19 August 2020</td> </tr> <tr> <td><u>3rd training</u> • ASC-MSC Seaweed Standard • Legal compliance • WESC Manual • How to complete work log • Social issues • Energy • Waste control • Control of substantial gears</td> <td>14, 16, 23, 29 September 2020</td> </tr> <tr> <td><u>4th training</u> • ASC-MSC Seaweed Standard</td> <td>16 October 2020</td> </tr> <tr> <td><u>5th training</u> • How to complete work log • Farm location (GPS Coordinates), License, • Origin of seedling</td> <td>24 November 2020</td> </tr> </table>	<u>1st training</u> • ASC-MSC Seaweed Standard	31 July 2020	<u>2nd training</u> • Sustainable farming • Marine environment in Wando region	19 August 2020	<u>3rd training</u> • ASC-MSC Seaweed Standard • Legal compliance • WESC Manual • How to complete work log • Social issues • Energy • Waste control • Control of substantial gears	14, 16, 23, 29 September 2020	<u>4th training</u> • ASC-MSC Seaweed Standard	16 October 2020	<u>5th training</u> • How to complete work log • Farm location (GPS Coordinates), License, • Origin of seedling	24 November 2020
<u>1st training</u> • ASC-MSC Seaweed Standard	31 July 2020											
<u>2nd training</u> • Sustainable farming • Marine environment in Wando region	19 August 2020											
<u>3rd training</u> • ASC-MSC Seaweed Standard • Legal compliance • WESC Manual • How to complete work log • Social issues • Energy • Waste control • Control of substantial gears	14, 16, 23, 29 September 2020											
<u>4th training</u> • ASC-MSC Seaweed Standard	16 October 2020											
<u>5th training</u> • How to complete work log • Farm location (GPS Coordinates), License, • Origin of seedling	24 November 2020											

		<ul style="list-style-type: none"> • MCS 		<p>Responsible of WESC, the Health Responsible of WESC, Director of WESC</p> <p>Site observation: Farms, Sun-dry fields, Temporary storage</p>
		<p>6th training</p> <ul style="list-style-type: none"> • How to complete work log • ASC-MSC Seaweed Standard • Improvement of farm structure • Social issues • Environmental issues 	18, 19, 29, 30 January 2021	
		<p>7th training</p> <ul style="list-style-type: none"> • ASC-MSC Seaweed Standard • WESC Manual 	17 February 2021	
		<p>8th training</p> <ul style="list-style-type: none"> • Preparation of certification audit 	7 May 2021	
		<p>Safety training is provided to worker by farmers. Training result is recorded in the daily work log.</p> <p>Regular internal audits are conducted of which scope includes health & safety in order to ensure the effectiveness of Health & Safety program. The latest audit was conducted on 13 May 2021. The audit findings are reported to Environmentally responsible seafoods committee in Wando Eco-friendly Seafood Cooperative (WESC) and corrective actions are followed up by Environmentally responsible seafoods committee.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Internal audit report dated on 13 May 2021 - Training records - Work log - Interview: Farmers and worker in UoA, Neighbour Seaweed farmer, the Safety Responsible of WESC, the Health Responsible of WESC, Director of WESC - Site observation: Farms, Sun-dry fields, Temporary storage 		

d	Organisation responsibility and insurance provided for personnel accident or injury		
	Guide post	No incidences of workers having to cover their own work-related medical expenses.	The organisation is responsible and there is proof of insurance (accident or injury) for personnel medical costs in a job-related accident or injury, unless otherwise covered. This includes all seasonal workers.
	Met?	Yes	Yes
	Rationale	There is only one worker. He is covered by Industrial Accident Compensation Insurance of which the	It is addressed in the Sub-chapter 13.2.6 Health, Safety and Insurance, WESC manual that members of Wando Eco-friendly Seafood

		<p>certificate is verified. And he is covered by national health insurance as well.</p> <p>Incidence of worker having to cover his own work-related medical expenses is not observed.</p> <p>Farmers state that there has been no health and safety related accidents or violation. The worker interviewed explains that he didn't experience any accident while he worked in the farm. Farmers have sailor insurance to cover work-related medical expenses.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Industrial Accident Compensation Insurance Certificate (Issued by Korea Workers' Compensation & Welfare Service, dated on 2 June 2021, No. 8500-20210602-00049) - National health insurance Certificate (Issued by National Health Insurance Service, dated on 2 June 2021, Certificate no. 12-20210602-2583980) - Work Log - Interview: Worker in UoA, Famers in UoA 	<p>Cooperative (WESC) shall provide the insurance worker to cover work-related medical expenses of workers. And members shall pay the work-related medical expenses. Worker shall not cover his/her own work-related medical insurance.</p> <p>There has been no accident in the units of assessment.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Industrial Accident Compensation Insurance Certificate (Issued by Korea Workers' Compensation & Welfare Service, dated on 2 June 2021, No. 8500-20210602-00049) - National health insurance Certificate (Issued by National Health Insurance Service, dated on 2 June 2021, Certificate no. 12-20210602-2583980) - Work Log - Interview: Worker in UoA, Famers in UoA
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PI 4.5 – Fair and decent wages

PI 4.5		Fair and decent wages	
Scoring Issue		Minimum	Target
a	Fair and decent wages		
	Guide post	The organisation pays at least the legally required minimum wage. Deductions in pay for disciplinary actions are not allowed and payments are made in a manner convenient to workers.	The organisation pays a living wage and there are no labour-only contracting relationships.
	Met?	Yes	Yes
	Rationale	Minimum wage is determined by Minimum wage commission (www.minimumwage.go.kr) every year in Korea. Only one minimum wage across Korea is applied. Workers are paid above the minimum wage (KRW8,590/hr in 2020 and KRW8,720/hr in 2021). Wage is paid by bank transfer to workers. Bank transaction records are verified. It is addressed in the Chapter 13. Working conditions, WESC manual that members of Wando Eco-friendly Seafood Cooperative (WESC) shall pay workers above the minimum wage. Wage deduction shall not be	The units of assessment have identified the living wage announced by Jeollanamdo (Provincial government). WESC Manual (Chapter 13) states that farmer shall ensure that at least the minimum wage announced by Minimum Wage Commission is paid. In addition, farmer shall pay the living wage announced by Jeollanamdo (KRW10,473/hr). During the site visit, it was observed that the evidence showing the living wage was paid. Labour-only contracting is not observed during the site visit. It is addressed in the Sub-chapter 13.2.6 Fair and decent wage, WESC manual that members shall not engage in labour-only contracting relationship.

		<p>excised as a disciplinary measure. Payment shall be made in a manner convenient to workers. The worker interviewed states that the wage agreed is paid by bank transfer. No deduction was made.</p> <p>Reference: - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Pay stub - Bank transaction records - Minimum wage (Minimum Wage Commission (www.minimumwage.go.kr))</p> <p>Interview: Worker, Famers</p>	<p>Reference: - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Pay stub - Bank transaction records - Jeollanamdo living wage Ordinance (No. 2020-410, Dated 24 September 2020) - Interview: Worker, Famers</p>
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PI 4.6 – Freedom of association and collective bargaining

PI 4.6		Freedom of association and collective bargaining	
Scoring Issue		Minimum	Target
a.	Freedom of association and collective bargaining		
	Guide post	There are no incidences of the production unit restricting worker access to associate or bargain collectively.	There is evidence that the risk of restrictions to freedom of association and collective bargaining has been minimised.
	Met?	Yes	Yes
	Rationale	<p>It is addressed in the Sub-Chapter 13.2.7 Freedom of association and collective bargaining, WESC manual that members shall not restrict the freedom of association and collective bargaining. Trade union is not formed. The worker interviewed state that his employer (a farmer) never restricted or threatened them not to form a trade union. Furthermore, he is the only full time employee to his employer. President of WESC states only one farmer have a worker. Seasonal or part-time workers are more commonly utilized.</p> <p>Reference: - WESC Manual (Rev. 1.2, dated on 30 April 2021)</p> <p>Interview: Worker, Famers</p>	<p>It is addressed in the Sub-chapter 13.2.7 Freedom of association and collective bargaining, WESC manual that members shall not restrict the freedom of association and collective bargaining. Farmers are trained on the freedom of association and collective bargaining. Farmers state to be aware of the policy on the freedom of association and collective bargaining. President of WESC states only one farmer have a worker. Trade union is not formed.</p> <p>Reference: - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Interview: Worker, Famers</p>

PI 4.7 – Disciplinary practices

PI 4.7		Disciplinary practices	
Scoring Issue		Minimum	Target
a	Disciplinary practices		
	Guide post	There is a policy in place to ensure against abusive disciplinary practices. No incidences of tolerated abuse have taken place.	The risk of potential abuse around discipline has been minimised. There are clearly outlined procedures to raise, file and respond to a complaint of abuse in an effective manner. Management and workers are clear on the policy and procedures. Training is

			provided to supervisors on acceptable disciplinary measures.
	Met?	Yes	Yes
	Rationale	<p>Farmers state that there has been no disciplinary action taken. The worker interviewed states that he has not experienced any abuse or harassment.</p> <p>A neighbour says they have never heard of worker abuse case.</p> <p>Public officer from Wando County office confirms that any abuse case of worker is not reported.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Interview: Worker, Famers, Officer from Wando County 	<p>It is addressed in the Article 13.2.8 Disciplinary measures, WESC manual that members shall not exercise physical, verbal and/or mental abuse, bullying, harassment. If disciplinary action is necessary, a farmer shall not discipline the worker at his/her on discretion, but shall report to Environmentally Responsible Seafoods Committee reporting to the Board of Directors in Wando Eco-friendly Seafood Cooperative (WESC). Anti-harassment and anti-abuse policy shall be annexed to the worker contracts.</p> <p>Training records on the policy on disciplinary measures and anti-harassment and anti-abuse policy are retained.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) <p>Interview: Worker, Famers, Officer from Wando County</p>

PI 4.8 – Working hours

PI 4.8		Working hours	
Scoring Issue	Minimum	Target	
a	Working hours		
	Guide post	The organisation abides at least to the legally required working and overtime laws. All overtime is voluntary.	The organisation abides by industry norms. Overtime is not regular. Workers are provided with at least one day off following every six consecutive days of work.
	Met?	No	Yes
	Rationale	<p>Farmers are aware of the Labour Standard Act in which weekly working hours and overtime limit are defined. Currently the number of employees in the respective production units are less than 4. 40 hours of weekly working hours and 12 hours of overtime rules are not applicable to the organization hiring less than 5 employees as per the Annex 1, Presidential Decree of Labour Standard Act. In addition, Article 63, Labour Standard Act states that working hours rules and rest day rules are not applicable to aqua culture business. It is addressed in the Sub-chapter 13.2.9 Working hours,</p>	<p>It is addressed in the Article 13.2.9 Working hours, WESC manual that weekly working hours are clearly defined. Wando Eco-friendly Seafood Cooperative (WESC) is committed to 40 hours of weekly working. Any overtime work are supposed to be clearly recorded in the daily work log. Farmers shall pay for overtime and rest day work at a premium rate. It is also stated in WESC manual that a rest day is given to workers every 6 consecutive days of working.</p> <p>The worker interviewed states that he was given a day off after 6 consecutive days of work.</p> <p>According to the newly developed working hours template, weekly and monthly working hours and rest days are easily</p>

		<p>WESC manual that overtime work shall be voluntary.</p> <p>.</p> <p>The working hour records don't properly demonstrate that a worker is provided with at least one day off following every six consecutive days of work. The farmer who employees a worker records the working hours in the seaweed farm, however the worker also works in Abalone farm owned by the same farmer. Weekly total hours of working and the rest day are not verified with current records.</p> <p>A critical condition is issued. The production unit shall verify through worker interviews or/and other evidence that the production unit complies with applicable laws related to working hours. The farmers should register the working hours in clear and detailed way and additionally also the off-day. A worker's working hours not only at the farm in the production unit but also at other farm which his employer (farmer) operates shall be recorded in order to demonstrate a weekly working hours and periodical day-off (max each 6 days) are compliant with applicable laws and ASC-MSC Seaweed Standard.</p> <p>The corrective actions are taken by WESC. The farmer who only employees a worker completed the working hours record in the template. The record demonstrates that the whole working hours from the seaweed farm and the abalone farm are complete. The dates when the worker took rest are indicated in the record. The worker didn't continue to work more than 7 days in a row. The maximum consecutive days of work are 6 days. By applying the new working hours template, total weekly working hours and rest day are clearly recorded and verified. This</p>	<p>accounted for. The farmer who only employees a worker completed the working hours record in the template. The record demonstrates that the whole working hours from the seaweed farm and the abalone farm are complete. The dates when the worker took rest are indicated in the record. The worker didn't work more than 7 days in a row. The maximum consecutive days of work are 6 days.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - National Law Information Center (www.law.go.kr) - Daily Work Log <p>Interview: Worker, Famers</p>
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		<p>condition is closed. (Critical condition is closed. 19 July 2021)</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - National Law Information Center (www.law.go.kr) <p>Interview: Worker, Famers</p>	
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PI 4.9 – Environmental and social training

PI 4.9		Environmental and social training	
Scoring Issue	Minimum	Target	
a	Environmental awareness and training		
	Guide post	Information is delivered to production unit workers about environmental and social issues included in this standard such as disposal of waste, and prevention and management of chemical and hydrocarbon spills, grievance procedure.	There is evidence of environmental and social awareness and training in production unit workers, sufficient for them to properly dispose of waste, and prevent and manage chemical and hydrocarbon spills, or to lodge a grievance.
	Met?	Yes	No
	Rationale	<p>WESC states the environment and social information applicable to operate farms.</p> <p>Wando Eco-friendly Seafood Cooperative (WESC) has arranged training sessions for its member farmers. More than 10 trainings were provided to farmers for last 1 year. Training subjects include environmental and social issues such as disposal of waste, prevention and response to chemical spillage, grievance, etc. Training records are retained.</p> <p>Trainings on general environmental and social issues are provided to a worker by farmer. Training result is recorded in the daily work log.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Training Records including training materials <p>Interview: Worker, Famers</p>	<p>Wando Eco-friendly Seafood Cooperative (WESC) has arranged training sessions for its 13 farmers since July 2020. More than 8 trainings were provided to farmers. Training subjects include environmental and social issues such as disposal of waste, prevention and response to chemical spillage, grievance, etc. Training records are retained.</p> <p>Trainings on general environmental and social issues are provided to a worker by farmer. Training result is recorded in the daily work log, however there is no evidence of environmental and social training in production unit workers, sufficient for them to properly dispose of waste, prevent and manage chemical and hydrocarbon spills, or to lodge a grievance.</p> <p>One condition is issued.</p> <p>Production unit shall demonstrate that workers have the appropriate level of understanding of environmental and social issues. There should be evidence with which the effectiveness of environmental and social trainings is verified so that production unit workers properly dispose of waste, prevent and manage chemical and hydrocarbon spills, or lodge a grievance.</p> <p>Reference:</p>

		<ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Training Records including training materials <p>Interview: Worker, Famers</p>
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Principle 5: Community relations and interaction

PI 5.1 – Community impacts

PI 5.1		Community impacts	
Scoring Issue		Minimum	Target
a	Community impact		
	Guide post	An assessment of the production unit community impact is conducted, and if determined necessary by the assessment, an independent p-SIA is conducted.	Recommendations of the production unit's community impact assessment are being implemented and the production unit is shown to have positive social benefits for the community.
	Met?	Yes	Yes
	Rationale	<p>Consultation with local communities is implemented in the local community forum, which is stated in the sub-chapter 14.2.1, WESC Manual. And each farmer participates in the Village Fishery Associations and explain the activity by WESC. The local community forum was hold on 18 May 2021 and WESC organizes consultations with local community at least twice per year. The following topics were explained and discussed.</p> <ul style="list-style-type: none"> - Activities of WESC in 2020-2021 - Current status and future of eco-friendly fishery in Jeollanamdo - ASC Certification status in Wando County - Q&A and Participants' opinion - Production unit community impact assessment <p>The assessment of the production unit community impact was conducted. Wando Eco-friendly Seafood Cooperative (WESC) invited 64 stakeholders including representatives from local communities and local community organizations (Fishermen's associations, Village heads, Head of village women's association, Village fishery management association) for Production unit community impact assessment. 57 out of 64 stakeholders (89%) answered the questionnaires regarding the production unit community impact. The impact assessment covers the followings;</p> <ul style="list-style-type: none"> - The process and transparency of communication with stakeholders. - The inclusiveness of the assessment undertaken in such a manner that all 	<p>Negative impacts are not identified from the Production unit community impact assessment. Participants in the Production unit community impact assessment answered that the awareness in ASC-MSC Seaweed certification is poor in the Wando region, however majority of stakeholders participated in the impact assessment considered that this certification has positive impacts on the local community and will result in further positive impacts. Stakeholders stated that the shortage of labour for seaweed farming is the main difficulty. The participants in the local community forum suggested to further promote the ASC-MSC Seaweed certification by campaign and training.</p> <p>Procedure of community impact assessment is addressed in the WESC Manual. (Sub-chapter 14.2.1 Regular assessment of the production unit community impact).</p> <p>WESC President and farmers in the production unit state that they understand the result and recommendation from the assessment and these are implemented. The impact assessment shows that preventive and mitigating measures on negative impacts are already taken, based on the due diligence. And WESC's activities regarding the ASC-MSC Seaweed certification have brought positive social benefits for the local community. There has been no claims to the resource.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Monthly Meeting minutes - Response Plan on the production unit community impact dated on 18 May 2021 - Complaint/Grievance log

		<p>stakeholder groups have input in the process, are informed of the results and outcome of such an assessment, and that steps taken and information gathered are openly accessible to all.</p> <ul style="list-style-type: none"> - The social impact assessment process being participatory and transparent. - The risks and actual impacts of the current or intended production unit and at least two alternatives have been included. One of these is the “no production unit or no expansion” scenario. - The inclusion of research and reports of probable impacts likely to be most important. - The consequences of changes. - The recommendations on avoiding issues with the intended production unit or production unit development. - The mitigation and monitoring plans for negative impacts. <p>WESC President and the public officer from Wando county state that restricting access to vital community resource is not permitted without community approval.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Assessment Report on the production unit community impact dated on 18 May 2021 - Meeting minutes on 18 May 2021 <p>Interview: President of WESC, Farmers, Public officer from Wando County</p>	<ul style="list-style-type: none"> - Interview: a neighbour village, and officer from Wando county, President of WESC, Farmers
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PI 5.2 – Conflict resolution

PI 5.2		Conflict resolution	
Scoring Issue	Minimum	Target	
a	Resolution of disputes		
	Guide post	The management system incorporates or is subject by law to a mechanism for the resolution of legal disputes arising within the system.	The management system incorporates or is subject by law to a transparent mechanism for the resolution of legal disputes, which is considered to be effective in dealing with most issues and that is appropriate to the context of the UoA.
	Met?	Yes	Yes
	Rationale	Farmers and Director of Wando Eco-friendly Seafood Cooperative (WESC) state that there has been no complaint, grievance or legal disputes. A neighbour interviewed states that there has been no legal dispute or complaint against the production units. Local community can always freely raise a grievance or complaint to the president of WESC and/or WESC members.	It is address that in the sub-chapter 14.2.3, WESC manual (that member farmer shall report to Environmentally Responsible Seafoods Committee under the Board of Directors in Wando Eco-friendly Seafood Cooperative (WESC) when complaint or grievance is filed. The resolution process of disputes is established in the WESC manual. Contact point is indicated in the signs posted on the vessels and storages owned or operated by member farmers.

		<p>A public officer from Wando County is interviewed. He states that there has been no legal dispute or complaint against the production units as far as he knows. Dispute between farmers can normally be resolved within Fishery Village Association or can be escalated to Wando County.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Complaint/Grievance log <p>Interview: Farmers, Director of WESC, Public officer from Wando county</p>	<p>Any person can file a complaint or grievance associated with the WESC to Environmentally Responsible Seafoods Committee. Complaint shall be recorded in the 'Local community complaint log' which is the attachment 3 to the WESC manual. The complaint shall be resolved within 30 days from the date of receipt.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Complaint/Grievance log <p>Interview: a neighbour farmer, Farmers, Director of WESC, Public officer from Wando county</p>
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b	Roles and responsibilities		
	Guide post	Organisations and individuals involved in the management process have been identified. Functions, roles and responsibilities are generally understood.	Functions, roles and responsibilities are explicitly defined and well understood for key areas of responsibility and interaction/s.
	Met?	Yes	Yes
	Rationale	<p>In the sub-chapter 14.2.3, the WESC manual, the governance of conflict resolution management system including main role and function and responsibility for conflict resolution are indicated. Environmentally Responsible Seafoods Committee under the Board of Directors in Wando Eco-friendly Seafood Cooperative (WESC) will lead the investigation of conflict, interview of stakeholders, preparation of investigation report and decision making and corrective actions. President and directors of WESC can state their role and responsibilities in conflict resolution and the functions of Environmentally Responsible Seafoods Committee and Board of Directors.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Interview: President of WESC, Directors of WESC 	<p>President of Wando Eco-friendly Seafood Cooperative (WESC) can explain her role and responsibility as well as the role and responsibility of Environmentally Responsible Seafoods Committee in resolving any conflict or disputes with stakeholders. Material determination and decisions are made by the board of Directors based on the reports, and opinion from Environmentally Responsible Seafoods Committee. Farmers state they are aware of the conflict resolution process in WESC.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Complaint/Grievance log <p>Interview: a neighbour farmer and officer from Wando county</p>

c	Consultation process		
	Guide post	The management system includes consultation processes that obtain relevant information from the main affected parties, including local	The management system includes consultation processes that regularly seek and accept relevant information, including local communities and knowledge. The

		communities and knowledge, to inform the management system.	management system demonstrates transparency and consideration of the information obtained.
	Met?	Yes	Yes
	Rationale	<p>In the article 14.2.2, WESC manual (Rev. 1.2, 30 April 2021), Environmentally Responsible Seafoods Committee shall interview the relevant stakeholders in the course of conflict resolution. The obtained information will be incorporated into the investigation report for the board of directors.</p> <p>Wando Eco-friendly Seafood Cooperative (WESC) has formed stakeholder roundtable, called 'Wando ASC-MSC Seaweeds Forum' in which various stakeholder participate. The main purpose of this stakeholder roundtable is to consult various stakeholders to get information or advice with regards to sustainable management of marine environment, sustainable operation of seaweeds farms, societal impact on local community by seaweeds farms, etc.</p> <p>In the article, 14.1 of WESC Manual, conflict resolution policy is stated. The policy provides the foundation on how to resolve the conflict. The conflict resolution process is addressed in the article 14.2.2 of WESC Manual.</p> <p>The policy is issued to participants including local communities during the local community forum was hold on 18 May 2021. The record of policy issuance is retained.</p> <p>There has been no dispute, complaint or grievance filed. Neighbours interviewed state that WESC is not involved in any dispute. They don't have complaint to WESC.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Forum Meeting minutes dated on 18 May 2021 	<p>Consultation process is described in the sub-chapter 14.2.2, WESC manual. Wando ASC-MSC Seaweeds Committee is the main channel to consult with the representatives from various stakeholders including local community representatives, Public officials, Members of Provincial parliament, Members of Count parliament, Researchers, etc. The minutes of Wando ASC-MSC Seaweeds Committee meetings demonstrate the consultation process is in place and stakeholders are invited in the bi-yearly meetings. The opinions and recommendations collected during the meetings are to be followed up and implementation results are to be reported. Stakeholders are regularly engaged in the called 'Wando ASC-MSC Seaweeds Committee'. The meeting minute is verified.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Complaint/Grievance log - Seaweed committee meeting minute dated on 18 May 2021 - Interview: a neighbour farmer and officers from Wando county, President of WESC

		- Interview: Farmers in UoA, Neighbours, Officer from Wando County	
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d	Participation		
	Guide post	The consultation process provides opportunity for all interested and affected parties to be involved.	
	Met?	Select one	
	Rationale		

PI 5.3 – Rights of indigenous people

PI 5.3		Rights of indigenous people	
Scoring Issue	Minimum	Target	
a	Rights of indigenous people		
	Guide post	There is evidence that the rights of indigenous people are respected by the production unit (where applicable to growing area) and attempts are made to accommodate their needs.	
	Met?	Yes	
	Rationale	<p>There has been no complaint, grievance or legal disputes. A neighbour interviewed states that there was no legal dispute or complaint against the production units. Local community can always freely raise a grievance or complaint to the president of Wando Eco-friendly Seafood Cooperative (WESC) and/or WESC members.</p> <p>WESC runs its website where any stakeholder can lodge a complaint or leave his/her opinion. (https://blog.naver.com/asc7177)</p> <p>In the article 14.2.2, WESC manual (Rev. 1.2, 30 April 2021), all stakeholders are given the opportunity to get involved in the consultation process.</p> <p>In addition, various stakeholders including local communities participate in the stakeholder roundtable, Wando ASC-MSC Seaweeds Committee.</p> <p>Independent internal auditor who reports to the chairman of Environmentally responsible seafoods committee of WESC states that he will meet the local community members semi-yearly</p>	

		<p>to listen to their voice, grievance or complaint.</p> <p>The signboard put on the vessels and storages contains name of farmer, telephone number of WESC. Anyone who wants to express his/her opinion on the WESC and its member farmers has the opportunity to talk to WESC.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Meeting minutes - Interview: Farmers, Neighbours, Officer from Wando County <p>WESC Blog https://blog.naver.com/asc7177</p>	
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PI 5.4 – Visibility, positioning, and orientation of production units or water-based structures

PI 5.4 Visibility, positioning, and orientation of production units or water-based structures			
Scoring Issue	Minimum	Target	
a	Compliance with navigational rules and regulations		
	Guide post	Production units allow access for other resource users as prescribed by custom or law.	Production units proactively facilitate access for other water users.
	Met?	Yes	Yes
	Rationale	<p>The aquaculture farming licenses are awarded to fishery village associations by local government (Wando County). Each fishery village association and farmers have signed the agreement to allocate the area and size of each aquaculture farm. This custom is practiced in Wando County and accepted by local communities, which is verified by Wando County officer during the interview. It is verified with the licenses and the agreements that production units have acquired the valid right to operate the aquaculture farms. Other resource users and public officials are allowed to access to production units as prescribed by Fishing ground management Act.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Licenses - National Law Information Center (www.law.go.kr) operated by Korea Ministry of Government Legislation 	<p>It is addressed in the sub-chapter 14.2.4, WESC Manual (Rev. 1.2, 30 April 2021) that farmers shall allow the access by other resource users. Farmers state that other resource users can access the production units. Local fisherman is observed to fish near the production units. A neighbour interviewed states that others can access the area. Wando County officer states that fishing boat can access the farming area, however fisherman avoid cruising in the farming area because the ropes submerged may cause accident. The buoys indicating the border lines of farms are installed.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, 30 April 2021) - Interview: a neighbour and officer from Wando county, Farmers <p>Observation: Farms</p>

	Interview: Officer from Wando county
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b	Positioning of production unit sites		
	Guide post	Visible structures of production units are arranged in an orientation and position as prescribed by custom or law.	Visible structures of production units are arranged in a uniform orientation and position, except where specified by law.
	Met?	Yes	Yes
	Rationale	<p>The visible structures of production units are installed in the orientation and position as stated in the Aquaculture farming licenses issued by Wando County. The float installed meets the product quality standard as prescribed by the article 13, Fishing ground management Act. It is observed that farms in UoA are arranged and positioned as per the licenses and legal requirements.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Licenses - National Law Information Center (www.law.go.kr) operated by Korea Ministry of Government Legislation - Observation: Farms 	<p>Visible structures of production units are observed to be uniformly positioned and oriented as per the license and the enforcement decree of Ministry of Oceans and Fisheries (Rules on management of fishery license issued on 15 May 2020). Officer from Wando county states that the farms along the coast are structured as per the licenses. It is observed that farms in UoA are arranged and positioned as per the licenses and legal requirements. Visible structures of production units are observed to be uniformly positioned and oriented.</p> <p>Reference:</p> <ul style="list-style-type: none"> - License - National Law Information Center (www.law.go.kr) operated by Korea Ministry of Government Legislation - Interview: Officer from Wando county <p>Observation: Farms</p>

PI 5.5 – Identification and recovery of substantial gear

PI 5.5	Identification and recovery of substantial gear	
Scoring Issue	Minimum	Target
a	Identification of substantial gear	
	Guide post	There is evidence that all substantial gear is identifiable to the production unit.
	Met?	Yes
	Rationale	<p>All substantial gear is identifiable to the production unit. Boundary of seaweed farm is identified with bigger buoy in cylindrical shape or round shape on which ASC mark is attached. All substantial gears and production unit equipment are clearly labelled and identifiable by farmer's own symbol/code. Other farms near or around the production unit doesn't apply identification with symbol nor code, etc. The symbol mark and code is unique identification of production unit.</p> <p>Reference:</p> <ul style="list-style-type: none"> - Licenses <p>Observation: Farms</p>

Gear recovery

b	Guide post	There is evidence that gear recovery is conducted by the production unit.	The production unit ensures that they maintain the proper equipment and /or mechanisms for recovering lost gear.
	Met?	Yes	Yes
	Rationale	<p>Maintenance of gears and floats in the production units are recorded in the daily work log. Records are retained. Farmers help each other recover lost gears found near/in their production units. The recovered gears are moved to the designated area in land or on the sea floating deck which is arranged by local government. Local government (Wando County) regularly cleans up the coast lines with the support of fisherman/aquafarmer's association. Production unit also voluntarily clean the farm area and coast lines bimonthly. Waste including lost gears is not observed from the shoreline during the site visit.</p> <p>Gear recovery is addressed in the sub-chapter 14.2.5, WESC Manual (Rev. 1.2, 30 April 2021).</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Interview: Officer from Wando County, Neighbour farmer <p>Observation: Farms, Waste disposal area near Daeyeong port</p>	<p>WESC requires its member farmers to use environmentally friendly buoy as much as possible. Most of the floats and buoys are replaced with environmentally friendly one. Substantial gear is identified and labelled so that farmers can easily recover it if gear is lost. Farmers state to inspect gears daily and replace these if necessary. In the daily work log, inspection result such as missing gear, replacement gear is recorded.</p> <p>It is stated in the sub-chapter 14.2.5, WESC Manual (Rev. 1.2, 30 April 2021) that farmer shall take actions to recover it with supports by member farmers if gear is missing/lost. Farmers of production units have boats and equipment used for recovering lost gears. Shorelines were observed nearest harbour area from seaweed farms. Wastes abandoned are not observed. Shoreline is observed clean.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Interview: Officer from Wando County, Neighbour farmer <p>Observation: Farms, Waste disposal areas</p>

c	Float use		
	Guide post	Float use is recorded by the production unit. Floats are securely attached so that they do not become loose.	
	Met?	Yes	
	Rationale	<p>Use of float is recorded in the daily work log including consumption, loss, recovery and replacement of float. Last 1 year records are retained. It is observed during the site visit that floats are securely installed to prevent from losing. Farmers state that wooden anchor and mooring rope are applied to securely hold floats.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Interview: Farmers <p>Observation: Farms,</p>	

PI 5.6		Noise, light, and odour	
Scoring Issue		Minimum	Target
a	Noise, light, and odour		
	Guide post	There are some measures that can help minimise operational noise, light and odour as appropriate to local custom.	There is evidence that noise, light and odour originating from the production unit are minimised in areas where it may impact others or as prescribed by law.
	Met?	Yes	Yes
	Rationale	<p>Source of operational noise, light and odour is identified and precautions and preventive measures to minimise operational noise, light and odour are addressed in the sub-chapter 14.2.5 of WESC Manual.</p> <p>Farmers state that they don't operate the vessel at high speed in the harbour area where village is nearby. It is also to prevent accident and operational noise. Farmers state that they seldom conduct night work as night work is dangerous. If the vessel is operated before sun rise and after sunset, light may be used. But as the distance from the farm and village is far. Drying work is only performed in the daytime when the sunlight is available. The drier is not used in the UoA.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Interview: Farmers in UoA, Officer from Wando County, Neighbours - Observation: Farms, Dry processing area 	<p>Neighbour explains that work boat/vessel should be operated at low speed within port area to prevent accident, which actually helps to minimize the noise level.</p> <p>Public officer from Wando County states that public complaint with regards to noise, light or odour is not received. It is verified during the interview that farmers are aware of the procedures addressed in the WESC manual. For example, work boat is operated at low speed within port area to minimise the noise, and more care is taken especially before sun rise and after sunset. It is observed that lighting is not installed in the production unit.</p> <p>Operational noise from work and work boat/vessel is not generated constantly. Odour is not sensed during the site visit to farms and dry processing area. Waste gears are stored in the areas designated by Wando County or Fishery Village Association. The areas are relatively remote to avoid the nuisance from odour.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Interview: - Observation: Farms, Dry processing area, Waste disposal area

PI 5.7 – Decommissioning of abandoned production units or water-based structures

PI 5.7		Decommissioning of abandoned production units or water-based structures	
Scoring Issue		Minimum	Target
a	Abandoned production units		
	Guide post	There is a mechanism in place for clearing up any unused production units.	
	Met?	Yes	
	Rationale	<p>Farmers in UoA shall not abandon production units or farm structure as per Fishing Ground Management Act (Article 13).</p> <p>Farmers dismantle and clean up the structure after harvest. Collected ropes, floats, buoys are brought up to land for maintenance and repairing. Removal of damaged gears is</p>	

		<p>recorded in the daily work log. The waste gears are transported to land and stored in the place designated by Wando County.</p> <p>It is addressed in the sub-chapter 14.2.6, WESC manual that dismantled gears should be disposed to legitimate vendor and recorded in the daily work log.</p> <p>Public officer from Wando county states that farmers are encouraged to collect unused, damaged gears and waste from the sea. The collected gears and wastes are temporarily kept in a waste storage designated by Wando County and disposed by Wando County.</p> <p>Reference:</p> <ul style="list-style-type: none"> - WESC Manual (Rev. 1.2, dated on 30 April 2021) - Daily work log - National Law Information Center (www.law.go.kr) operated by Korea Ministry of Government Legislation - Interview: a representative of local neighbour village, and officers from Wando county <p>Observation: Farms, Dry processing area, Waste disposal area</p>	
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7 Summary of scoring table

Principle	Performance Indicator		Level	Number of Conditions	Pass
1	PI 1.1	Stock Status	NA		Pass
	PI 1.2	Harvest strategy	NA		
	PI 1.3	Genetic impact on wild stock	Target		
2	PI 2.1	Habitat	Target		Pass
	PI 2.2	Ecosystem structure and function	Target		
	PI 2.3	ETP species	Target		
	PI 2.4	Other species	Target		
	PI 2.5	Waste management and pollution control	Target		
	PI 2.6	Pest(s) and disease(s) and management	Target		
	PI 2.7	Energy efficiency	Minimum	1	
	PI 2.8	Translocations	NA		
	PI 2.9	Introduction of alien species	NA		
3	PI 3.1	Legal and/or customary framework	Target		Pass
	PI 3.2	Decision-making processes	Target		
	PI 3.3	Compliance and enforcement	Target		
4	PI 4.1	Child labour	Target		Pass
	PI 4.2	Forced, bonded or compulsory labour	Target		
	PI 4.3	Discrimination	Target		
	PI 4.4	Health, safety and insurance	Target		
	PI 4.5	Fair and decent wages	Target		
	PI 4.6	Freedom of association and collective bargaining	Target		

	PI 4.7	Disciplinary practices	Target		
	PI 4.8	Working hours	Target		
	PI 4.9	Environmental and social training	Minimum	1	
5	PI 5.1	Community impacts	Target		Pass
	PI 5.2	Conflict resolution	Target		
	PI 5.3	Rights of indigenous groups	Target		
	PI 5.4	Visibility, positioning and orientation of farms or water-based structures	Target		
	PI 5.5	Identification and recovery of substantial gear	Target		
	PI 5.6	Noise, light and odour	Target		
	PI 5.7	Decommissioning of abandoned farms or water-based structures	Target		

8 Table 4 Maximum number of conditions allowed for a certified UoA

Principle	Production unit category (as in Table 2)				
	A	Bi	Bii	Ci	Cii
P1	1	1	0	1	0
P2	2	2	2	2	2
P3	1	1	1	1	1
P4	2	2	2	2	2
P5	2	2	2	1	1
Total	8	8	7	7	6

9 Summary of conditions

The team shall create a schedule of conditions stating the specific requirements that are to be met within a specified timeframe, using the Summary of Conditions section of the ASCMSC Seaweed Audit Reporting Template [CAR, 17.12.4].

Note: If no conditions are raised, this table should not be completed.

Condition number	Condition	Timeframe	Performance Indicator (PI)	Scoring Issue	Related to previously raised condition?	Action Plan	Status of condition	Rationale for closing conditions
1	There shall be evidence of energy use monitoring relative to production and ongoing effort to improve efficiency. The farmers should clearly record the fuel name and quantity of fuel consumed in the fuel consumption record template as well as daily work log.	Within one year after Public Certification Report is issued.	2.7	a	N/A	Recording energy consumption i.e. gasoline and diesel monthly from July 2021 for 1 year following by analysing the consumption quantity per sources. Based on this data, we shall establish the strategy to improve energy efficiency before next surveillance audit.	Open	

2	Production unit shall demonstrate that workers have the appropriate level of understanding of environmental and social issues. There should be evidence with which the effectiveness of environmental and social trainings is verified so that production unit workers properly dispose of waste, prevent and manage chemical and hydrocarbon spills, or lodge a grievance.	Within one year after Public Certification Report is issued.	4.9	a	N/A	WESC will also provide education and relevant material about environmental, social and safety issue to farmer's worker when we carry the site visit.	Open	

[Create new rows as required]

10 Summary of critical conditions

Note: If no critical conditions are raised, this table should not be completed.

Condition number	Condition	Timeframe	Performance Indicator (PI)	Scoring Issue	Related to previously raised condition?	Client response	Rationale for closing conditions
1	The production unit shall verify through worker interviews or/and other evidence that the production unit complies with applicable laws related to working hours. The farmers should register the working hours in clear and detailed way and additionally also the off-day. A worker's working hours	3 months	4.8	a	N/A	WESC has developed 'Monthly work log and wage payment log template'. In the template, the definitions of weekly working hours, rest day and monthly wage payment date are stated on the first page. Daily working hours, overtime, and rest time should be	WESC has immediately implemented the working hours recording system in the template. The farmer who only employees a worker completed the working hours record in the template. The record demonstrates that the whole working hours from the seaweed farm and the abalone farm are complete. The dates when the

	not only at the farm in the production unit but also at other farm which his employer (farmer) operates shall be recorded in order to demonstrate a weekly working hours and periodical day-off (max each 6 days) are compliant with applicable laws and ASC-MSC Seaweed Standard.					recorded for one month period. Once a month is closed, worker and farmer shall review and verify the records and sign off on the template if both agree the records are accurate. Details of the wage for the month are addressed in the template.	worker took rest are indicated in the record. The worker didn't continue to work more than 7 days in a row. The maximum consecutive days of work are 6 days. By applying the new working hours template, total weekly working hours and rest day are clearly recorded and verified. This condition is closed. (19 July 2021)

[Create new rows as required]

11 Traceability section (CAR 17.14)

1. Review and document	Description
a. The flow of certified product from harvest to sale within the UoA	<p>Farmers in the Unit of Assessment of Wando Eco-friendly Seafood Cooperative (WESC) culture seaweeds (Kelp & Hiziki) in the sea during the winter season. Harvested seaweed will be transported by vessel and truck owned by farmers to their sun-drying field in land. The seaweeds (Kelp & Hiziki) are dried for about one day under sunlight and additional hot air dry is applied to Hiziki if removal of moisture is further required. Seaweeds to be sold as 'salted seaweed' is transported after harvest to Factory 3 of WESC for the primary processing (Washing, blanching, and mixing with salt) and transported to Factory 2 of WESC for storage (freezer).</p> <p>Daily harvest volume and processed volume are recorded in the work log by each farmer. The processed seaweeds are temporarily stored in each farmer's storage. Each farmer transports the dried seaweed to Wando Eco-Friendly Seafood Cooperative (WESC) for sales. 'ASC' acronym is posted at the storage of each farmer. A label is posted on the dried seaweeds bundle to identify the batch. And each batch is segregated in the storage by location and with temporary packing. The batch number written in the label states the location of the farm and the date of harvest.</p> <p>Certified seaweed will exclusively sold to WESC. From the date of the certification audit.</p>
b. The associated traceability system which allows product to be traced from first point of sale back to the harvesting/culturing facilities in the UoA	<p>The batch number (code for primary processing and temporary storage) and the lot number (Code for longline ropes in the farms) is to be recorded in the certificate of receipt issued by WESC and in the certificate of supply issued to the farmers. The batch number is traced back to stored volume in the individual farmer's warehouse and daily harvested volume recorded in the farmer's work log. The farmers record the seedlings in the aquafarm with location and volume and retain the purchasing invoice of seaweed seedling or certificate of purchase. Lot number is given to each line of aquafarms with farmers' identification code. The volume of seedlings purchased and planted, and the volume of seaweed harvested and primarily processed, stored in the farmer's warehouse are recorded by each farmer so that product can be traced from the first point of sale back to harvesting.</p>
c. The traceability documentation at each stage of handling	<p>WESC Traceability Manual, Rev 1.2, 30 April 2021 is established. Lot number (Code for longline in the farms) is given to each longline rope in the</p>

<p>certified product and how product can be linked from each document (e.g. through batch codes, lot codes, etc.)</p>	<p>respective farms in the UoA. The lot number is recorded in the plant management log. When the certified seaweeds are harvested, primary processed and temporarily stored, the batch number (code for the longlines from which seaweeds are harvested for primary processing and temporary storage) is created and recorded in the harvesting management log. The batch number and the lot number are indicated in the certificate of receipt retained by WESC and the certificate of supply retained by the farmers.</p>			
<p>d. A detailed description of the systems used to segregate and identify certified product at each stage of handling</p>	<p>All certified seaweeds are exclusively sold to WESC. Certified seaweeds are sun-dried, and stored in the area owned or exclusively used by the farmers within the units of assessment. Uncertified seaweeds are sold as fresh and not stored in the same location. At each stage of handling, the farmers put the labelling with information of farmer name, farm row number and acronyms of “ASC” on the batch of certified seaweed for identification.</p>			
<p>2. Identify if the following risks are currently or potentially applicable</p>	<p>Currently applicable risk (Y/N)</p>	<p>Potentially applicable risk (Y/N)</p>	<p>If answer to current or potential risk is yes clearly document the risk</p>	<p>Describe any traceability, segregation, or other systems in place to manage and minimise the risk.</p>
<p>a. The possibility of mixing or substitution of certified and non-certified product, including product of the same or similar appearance or species, produced within the same UoA.</p>	<p>N</p>	<p>N</p>		<p>The possibility of mixing or substitution of certified and non-certified is low. All 13 Farms in the UoA produced certified seaweeds (Kelp and Hiziki). Traceability criteria will include farm name, date of harvest, row of harvest. Harvested seaweeds are dried by each farmer in the sun-dry field owned or controlled by each farmer. Dried seaweeds are stored in the each farmer’s storage until sold to WESC. Fresh seaweeds are transported to WESC Factory 3 and sold right after the harvest. The ownership is transferred to WESC at this point. Hence the risk of mixing with non-certified is low as the seaweed produced by each farmer under UoA controlled exclusively. WESC is certified to a separate CoC. All purchased seaweeds are coded when delivered to WESC’s factories. Processed (first and second) seaweeds with unique code are labelled and stored in its warehouse. The area for the certified seaweed is segregated from the one</p>

				<p>for non-certified seaweed.</p> <p>WESC has another group of farmers to whom a separate ASC-MSC Seaweed certification is issued. Unique code is given to the certified seaweeds supplied by this first group of farmers according to WESC CoC Manual (Ver. 1.21; 20 April 2021). The seaweeds from the first group of 11 farmers and this second group of 13 farmers are handled and controlled by respective farmers until the ownership is transferred to WESC. Once the ownership is changed, WESC applies its CoC procedures to apply the unique code and segregate the certified one from non-certified one.</p>
<p>b. The possibility of mixing or substitution of certified and non-certified product, type of production/harvest, including product of the same or similar appearance or species, present during production, harvest, transport, storage, or processing activities.</p>	N	N		<p>The possibility of mixing between certified and non-certified is low as all UoA only certified seaweed is sun-dried, stored in the area owned or exclusively used by the farmers of aquafarms within the units of assessment. Uncertified seaweed from neighbour farms are not sun-dried, primarily processed and stored in the same location.</p> <p>At each stage of handling, the farmers put the labelling including name of farmer, ropes number, date processed, telephone number of WESC and the logo of ASC on the batch of certified seaweed for identification.</p>
<p>c. The possibility of subcontractors being used to handle, transport, store, or process certified products</p>	No	No		<p>The UoA farmers handle their own harvest, transportation, drying and storage. No subcontractor being used.</p>
<p>d. Any other opportunities where certified product could</p>	No	No		<p>All UoA farmers are under the initial</p>

potentially be mixed, substituted, or mislabelled with non-certified product before the point where product enters the Chain of Custody			certification, and all products of Kelp and Hiziki will become certified products once certified.
3. Determination	Yes/No	Justification	
a. Any traceability and segregations systems in place are sufficient to address the risks and to ensure all products identified and sold as certified originate from the UoA?	Yes	All certified seaweeds, Kelp and Hiziki are produced by the aquafarms in the units of assessment and noncertified product is not produced in the farms. There is a Traceability Procedure CoC, version 1.2 dated 2021.4.30. e.g. 2021K-Bii/KI/Farmer name/A/3/2020-06-03 2021: year K: Kelp, H: Hiziki Bii: sea farming and seed not from wild. Farmer name A: site A. 3: how many ropes harvested. 2020-06-03: date of drying.	
b. Is a separate chain of custody certification required for the UoA before products can be sold as certified?	N	UoA not required a separate chain of custody, farmer will harvest, dry and store certified products in their own storage. Farmers only handle their own seaweed, no handling noncertified seaweed.	
c. Confirm whether products are eligible to enter further chains of custody	Y	Products can enter chain of custody after certified and certificate issued. Produced seaweed is sold to WESC which is certified to CoC. WESC is certified to ASC CoC (SWD-C-00005). Locations included in the certificate are as follows; 1) WESC Factory 1: 9, Nonggongdanji 2-gil, Wando-eup, Wando-gun, Jeollanam-do, 59108 Republic of Korea 2) WESC Factory 2: 23, Nonggongdanji-gil 5, Wando-eup, Jeollanam-do, 59108, Republic of Korea 3) WESC Factory 3: 73, Haedong 2-gil, Yaksan-myeon, Wando-gun, Jeollanam-do, 59136, Republic of Korea	
d. If a separate chain of custody certification is not required, document the intended point of first sale	Y	Intended first point of sale is in the warehouse or processing factories of WESC. The ownership of the certified seaweeds is transferred when the delivery of the seaweeds is completed.	
e. If a separate chain of custody certification is not required, document the point from which chain of custody is required to begin	Y	Point from which chain of custody is required to begin when certified seaweed transported to the warehouse or processing factories of WESC.	

12 Determination

<u>Draft determination</u>	Wando Eco-friendly Seafood Cooperative (WESC) 13 farms will be recommended for the initial certification based on the ASC-MSC Seaweed (Algae) Standard V1.1
<u>Final determination</u>	There was no comments under PCDR, hence Wando Eco-friendly Seafood Cooperative (WESC) 13 Farms all condition were closed. Hence, final certification would be recommended.
<u>Entities allowed to use certificate</u>	UoC: Wando Eco-friendly Seafood Cooperative (WESC) #201, Corporate Support Building, Marin -Bio Research Center, 21-7, Nonggongdanji 4-gil, Wando-eup, Wando-gun, Jeollanam-do, 59108, Republic of Korea UoA: (Farm doesn't have the address but have GPS Coordinates) 1) Farm of Mr. Myung-Jin KIM:

(No.13670)

34°18'51.56"N	126°53'18.47"E
34°18'50.87"N	126°53'18.47"E
34°18'45.49"N	126°53'18.38"E
34°18'46.67"N	126°53'15.93"E

(No.13672)

34°20'25.79"N	126°54'2.97"E
34°20'25.31"N	126°54'5.01"E
34°20'20.56"N	126°54'1.06"E
34°20'19.90"N	126°54'3.30"E

Processing place & Storage: 1514-18, Sinji-ro, Sinji-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°20'35.7"N 126°53'37.1"E)

2) Farm of Mr. Tae-Min KIM & Ms. Bo-Ae JUNG:

(No. 11670)

34°18'3897"N	126°51'8791"E
34°18'34.78"N	126°51'86.02"E
34°18'42.24"N	126°51'75.95"E
34°18'37.77"N	126°51'74.27"E

Processing place & Storage: 1039-3, Woryang-ri, Sinji-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°19'01.0"N 126°50'52.4"E)

3) Farm of Mr. Seung-Ho JEONG:

(No. 13830)

34°18'11.53"N	126°51'49.48"E
34°18'10.97"N	126°51'51.06"E
34°18'03.69"N	126°51'41.80"E
34°18'03.64"N	126°51'41.68"E

Processing place & Storage: 1141-1, Woryang-ri, Sinji-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°18'39.1"N 126°51'12.3"E)

4) Farm of Mr. Kyung-Un KIM:

(No. 13690)

34°23'08.13"N	126°57'75.29"E
34°23'08.08"N	126°57'75.38"E
34°23'08.18"N	126°57'79.29"E
34°23'15.23"N	126°57'79.80"E

Processing place & Storage: 678-1, Haedong-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°22'53.6"N 126°56'13.7"E)

5) Farm of Mr. Gwan-Seop JEONG & Ms. Seon-Ae YU:

(No. 13690)

34°22'97.17"N	126°57'69.96"E
34°22'98.28"N	126°57'74.16"E
34°22'99.76"N	126°57'75.28"E
34°22'99.84"N	126°57'79.63"E

34°22'99.84"N	126°57'79.63"E
34°23'24.38"N	126°57'65.95"E
34°23'28.26"N	126°57'64.21"E
34°23'16.94"N	126°57'60.21"E

Note: The space between the areas are used for vessel path.
Farming is not performed.

Processing place: 410, Haedong-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°23'03.7"N 126°55'37.9"E) /
Storage: 710, Haedong-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°22'53.6"N 126°56'21.2"E)

- 6) Farm of Mr. Choong-Hun CHOI & Ms. Mi-So LEE:
(No. 13661)

34°23'18.03"N	126°57'66.26"E
34°24'69.13"N	126°53'85.53"E
34°24'68.03"N	126°53'74.11"E
34°24'63.48"N	126°53'74.68"E

Processing place: 125-1, Udu-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°23'29.2"N 126°53'40.2"E)
Storage 77-3, Udu-ri, Yaksan-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°23'42.5"N 126°53'33.4"E)

- 7) Farm of Mr. Yong-Young KIM:
(No. 13572)

34°24'05.18"N	127°00'23.05"E
34°24'06.68"N	127°00'24.85"E
34°24'01.66"N	127°00'26.06"E
34°24'03.59"N	127°00'28.10"E

34°23'05.05"N	127°00'42.46"E
34°24'07.78"N	127°00'42.46"E
34°24'03.10"N	127°00'45.45"E
34°24'04.99"N	127°00'48.40"E

Note: There are another farm and vessel path in the space between the areas. The farm located in the space between the areas doesn't belong to the UoA.

Processing place & Storage 1225-9, Cheokchi-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°22'06.5"N 127°01'44.6"E)

- 8) Farm of Mr. Hyun-Seung KIM & Ms. Jeong-Young LEE:
(No. 13572)

34°22'30.53"N	127°02'24.91"E
34°22'28.49"N	127°02'22.37"E
34°22'30.38"N	127°02'19.22"E
34°22'33.01"N	127°02'22.27"E

(No. 14033)

34°24'58.25"N	126°59'25.77"E
34°25'00.11"N	126°59'29.51"E
34°25'02.74"N	126°59'26.94"E
34°25'01.16"N	126°59'23.30"E

Processing place & Storage 1075 Cheokchi-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°22'03.8"N 127°01'30.4"E)

- 9) Farm of Mr. Young-Soo JEON:
(No. 13794)

34°23'55.63"N	126°59'57.66"E
34°23'57.71"N	126°59'59.80"E
34°23'53.47"N	127°00'01.00"E
34°23'55.27"N	127°00'03.96"E

Processing place & Storage: 1233, Cheokchi-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°21'53.5"N 127°01'41.5"E)

- 10) Farm of Mr. Hong-Joo JEON:
(No. 13794)

34°22'24.40"N	127°02'25.27"E
34°22'22.68"N	127°02'22.82"E
34°22'20.25"N	127°02'25.35"E
34°22'22.36"N	127°02'27.76"E

(No. 14033)

34°24'21.94"N	126°59'48.80"E
34°24'18.34"N	126°59'44.87"E
34°24'15.24"N	126°59'46.30"E
34°24'19.19"N	126°59'51.73"E

Processing place & Storage: 1230-1, Cheokchi-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°22'06.2"N 127°01'39.0"E)

- 11) Farm of Mr. Hyuk SEO :
(No. 13693)

34°19'38.48"N	127°01'32.36"E
34°19'40.60"N	127°01'30.59"E
34°19'39.50"N	127°01'33.84"E
34°19'41.86"N	127°01'31.44"E

Processing place 1457, Singu-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°20'28.5"N 127°02'18.0"E)
Storage 478, Singu-ri, Geumil-eup, Wando-gun, Jeollanam-do, Republic of Korea (34°20'51.6"N 127°02'37.5"E)

- 12) Farm of Mr. Ik-Jin Jo:
(No. 13671)

34°19'16.69"N	126°54'44.93"E
34°19'14.28"N	126°54'48.43"E
34°19'23.99"N	126°54'52.62"E
34°19'21.73"N	126°54'55.94"E

	<table border="1"> <tr><td>34°19'55.30"N</td><td>126°55'07.99"E</td></tr> <tr><td>34°19'57.28"N</td><td>126°55'04.90"E</td></tr> <tr><td>34°19'51.34"N</td><td>126°55'05.69"E</td></tr> <tr><td>34°19'53.26"N</td><td>126°55'02.51"E</td></tr> </table> <p>Processing place & Storage 15, Jukcheong-gil, Wando-eup, Wando-gun, Jeollanam-do, Republic of Korea(34°20'44.0"N 126°44'09.5"E)</p> <p>13) Farm of Mr. Myeong-Chul JI & Ms. Dal-Lae KI: (No. 11341)</p> <table border="1"> <tr><td>34°17'42.98"N</td><td>126°49'14.59"E</td></tr> <tr><td>34°17'44.53"N</td><td>126°49'14.59"E</td></tr> <tr><td>34°17'48.78"N</td><td>126°49'09.49"E</td></tr> <tr><td>34°17'46.78"N</td><td>126°49'14.98"E</td></tr> </table> <p>Processing place & Storage 1084-7, Woryang-ri, Sinji-myeon, Wando-gun, Jeollanam-do, Republic of Korea (34°18'36.7"N 126°51'03.3"E)</p>	34°19'55.30"N	126°55'07.99"E	34°19'57.28"N	126°55'04.90"E	34°19'51.34"N	126°55'05.69"E	34°19'53.26"N	126°55'02.51"E	34°17'42.98"N	126°49'14.59"E	34°17'44.53"N	126°49'14.59"E	34°17'48.78"N	126°49'09.49"E	34°17'46.78"N	126°49'14.98"E
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34°17'44.53"N	126°49'14.59"E																
34°17'48.78"N	126°49'09.49"E																
34°17'46.78"N	126°49'14.98"E																
<u>The point from which CoC is required to begin</u>	<p>Wando Eco-friendly Seafood Cooperative (WESC) Warehouses and processing factories</p> <ol style="list-style-type: none"> 1) WESC Factory 1: 9, Nonggongdanji 2-gil, Wando-eup, Wando-gun, Jeollanam-do, 59108 Republic of Korea 2) WESC Factory 2: 23, Nonggongdanji-gil 5, Wando-eup, Jeollanam-do, 59108, Republic of Korea 3) WESC Factory 3: 73, Haedong 2-gil, Yaksan-myeon, Wando-gun, Jeollanam-do, 59136, Republic of Korea <p>WESC is certified to ASC CoC (SWD-C-00005).</p>																
<u>Eligibility date</u>	<p>The Eligibility Date can be set as either:</p> <ol style="list-style-type: none"> a. The date of the certification of the UoC as specified on the certificate, or b. The publication date of the PCDR. <p>The variation request on the eligibility date is approved by Seaweed standard team (21 May 2021) The date is set as the audit visit date, which there is no harvest before the visit date. So the entire harvest season is included, the eligibility date is set as 31 May 2021.</p>																

13 Additional resources

Table 3: Applicability of PIs depending on the characteristics of the UoA production system/unit

Performance Indicators	Criteria	Yes/No	Action
PI 1.1 Stock status	1. Does the activity depend on wild stocks of seaweed or on seed supplied from them (categories A, Bi or Ci)?	Yes	Score these PIs
PI 1.2 Harvest strategy		No	Do not score these PIs
PI 1.3 Genetic impact on wild stock	1. Is translocation occurring or the activity requires stages cultivated in hatcheries?	Yes	See next criteria
		No	Do not score this PI
	2. Is it a land-based system (category C)?	Yes	See next criteria

		No	Score this PI
	3. Is there contact with, extraction from, or impact on the marine environment which cannot be considered negligible?	Yes	Score this PI
		No	Do not score this PI
PI 2.1 Habitat	1. Is it a land-based system (category C)?	Yes	See next criteria
		No	Score these PIs
PI 2.2 Ecosystem structure and function	2. Is there contact with, extraction from, or impact on the marine environment which cannot be considered negligible?	Yes	Score these PIs
		No	Do not score these PIs
PI 2.7 Energy efficiency	1. Is it a micro family business?	Yes	Do not score this PI
		No	Score this PI
PI 2.8 Translocations	1. Is translocation occurring?	Yes	See next criteria
		No	Do not score this PI
	2. Is it a land-based system (category C)?	Yes	See next criteria
		No	Score this PI
	3. Is there contact with, extraction from, or impact on the marine environment which cannot be considered negligible?	Yes	Score this PI
		No	Do not score this PI
PI 2.9 Introduction of alien species	1. Is the UoA targeting an alien species	Yes	Score this PI
		No	Do not score this PI
PI 3.1 Legal and/or customary framework	1. Is the production of such low intensity, scale, and level of development as to be considered to not yet need a national legal framework?	Yes	Do not score this PI
		No	Score this PI
PI 5.4 Visibility, positioning and orientation of farms or water-based structures	1. Is it a land-based system (category C)?	Yes	See next criteria
		No	Score these PIs
PI 5.5 Identification and recovery of substantial gear	2. Does the activity require the use of substantial gear or structures in the wild aquatic environment?	Yes	Score these PIs
		No	Do not score these PIs

