

Assessment against SEG Standard:

Component 1: Core requirements
Component 2: Glass eel fishing
Component 4 : Eel buying and trading
Component 5: Eel farming

Completed by
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Final

Reviewed and Approved by Certification Body:
David Bunt, Sustainable Eel Group, 16 July 2021

1. Introduction

This document represents the report realized following the audit of June 23 and 24, 2021 carried out within the framework of the SEG (Sustainable Eel Group) standard (version 6.0a, December 2019) at the Nounemaroc aquaculture farm located in the commune of Kenitra in Morocco.

This audit is particular by 2 aspects, firstly Nounemaroc is located in Morocco, a developing country outside the European Union, the standards, regulations or fisheries management are very different from the European Union. On the other hand, Nounemaroc is the only farm where the chain is totally integrated from fishing to exporting, requiring an evaluation against components 1, 2, 4 and 5 of the standards.

Nounemaroc is an eel production farm established in 2006 in Kenitra, Morocco. It is part of the Nijvis group. It has a permit to exploit the Oued Sebou River in the form of a leasehold right issued by the Moroccan state. This right to exploit is delivered against a financial remuneration and includes: an annual quota of maximum 1200 kg of elvers, a fishing authorization between January and June, and an obligation to repopulate 10% of the individuals caught. This right to exploit is renewed twice a year by the authorities. With this right of exploitation, the Nounemaroc company gives the authorization to fishermen to catch glass eels on the leased territory against a remuneration per kg fixed annually. Collectors take care of collecting the fish from the fishermen.

For the transport, between the fishery and the aquaculture farm, the collectors must be issued a hawking permit by the Moroccan authorities including the weight of elvers transported accompanied by the fishing records of each fisherman. Thus, the authorities are present at each landing.

Upon their arrival in the farm, the glass eels are placed in quarantine before entering the rearing circuit for a period of 1 to 3 years depending on the size of eel desired. The eels for restocking remain on average 5-6 months before being restocked. The eels produced for sale have a main size between 200-400 gr.

The export of eels is done in 2 forms, live eel and frozen eel. At each export, the customs is present to check the packaging of the products, sign the export documents and put seals on the truck transporting the boxes to the airport. A customs control is carried out on arrival at the airport to check the seals, the documents and some boxes.

2. The assessment

The evaluator was Fabien Charrier for Fish-Pass. The audit took place on June 23-24 at the Nounemaroc site with the site managers Mrs. Asmae El Bakkali and Mr. Jérôme Gurruchaga. A visit of the farm was made with them. All the necessary documents were made available. The elver fishing was finished, however the auditor was able to attend a demonstration of the fishing methodology. Also, the auditor attended the preparation and sending of an order for export.

3. Client Contact Details

Nom/Entreprise	Nounemaroc
Adresse postale	Quartier Municipal Industriel Lot 71 Kenitra
Adresse mail	nounemaroc@yahoo.fr
Numéro de téléphone	+ 212 (537) 37.89.64

4. Results of the assessment

The outcome of this assessment is as follows :

Component 1: General Requirements	Auditor's findings	Weighting	Score
1.1 Commitment to Legality	Responsible	1	1
1.2 Contribution to eel conservation projects (bonus)	Not Applicable	0	0
1.3 The organisation trades in certified responsibly sourced eels	Aspiring	1	0
1.4 Traceability:			
1.4.1 Incoming products, separation and segregation	Responsible	1	1
1.4.2 Outgoing products	Responsible	1	1
1.4.3 Record keeping and documentation	Responsible	1	1
1.5 Biosecurity & welfare –			
1.5.2 Eel buying & trading: Biosecurity is present and disease is treated rapidly and appropriate	Aspiring	1	0
1.5.3 Eel farming : Biosecurity is present and disease is treated rapidly and appropriate	Aspiring	1	0
1.5.4 Restocking : The risk of restocked eels introducing disease into wild populations has been assessed and is minimal	Aspiring	1	0
Total		8	4/8
Percentage Responsibility Score:		50%	

Finding: Nounemaroc has scored 50% Responsibility for Component 1: General Requirements and therefore should be considered **RESPONSIBLE** under the SEG standard.

Component 2: Glass eel fishing	Auditor's findings	Weighting	Score
2.1 Eel fishing is in a catchment that is meeting its escapement targets	Aspiring	2	0
2.2 There is good progress with the applicant's responsibilities in the eel management plan for the river or district	Not Applicable	0	0
2.3 The fishery is well managed	Responsible	1	1
2.4 Mortality during fishing is minimised	Aspiring	2	0
2.5 The fishery has negligible impacts on by-catch species	Aspiring	1	0
2.6 The fishery has negligible impacts on rare or other protected species	Aspiring	1	0
2.7 The fishery has negligible impacts on habitats	Responsible	1	1
2.8 Transport	Responsible	1	1
2.9 Bonus score: fishermen donate a proportion of their catch for a local positive contribution	Responsible	1	1
Total		10	4/ 10
Percentage Responsibility Score:		40%	

Finding: Nounemaroc has scored 40% Responsibility for Component 2: Glass eel fishing and therefore should be considered **Aspiring** under the SEG standard.

Component 4: Eel buying and trading	Auditor's findings	Weighting	Score
4.0 Segregation of certified and uncertified eels	Responsible	2	2
4.1 The glass eel holding facility is a registered aquaculture production business	Responsible	1	1
4.2 Mortality in storage facility	Aspiring	2	0
4.3 Mortality during transport and initial holding if transported to farm	Responsible	2	2
4.4 Water quality	Responsible	1	1
4.5 Handling and welfare	Aspiring	1	0
4.6 Transport	Responsible	1	1
4.7 The required percentage of glass eels is being used for restocking	Aspiring	2	0
Total		12	7/12
Percentage Responsibility Score:		58%	

Finding: Nounemaroc has scored 58% Responsibility for Component 4: Glass eel fishing and therefore should be considered **Responsible** under the SEG standard.

Component 5: Eel farming	Auditor's findings	Weighting	Score
5.0 Segregation of certified and uncertified eels	Responsible	2	2
5.1 The total mortality rate during the culture is low	Aspiring	2	0
5.2 The fish meal/oil ingredients in the feed come from a responsible source	Responsible	1	1
5.3 Feed is used as efficiently as possible	Responsible	1	1
5.4 Water Quality	Responsible	1	1
5.5 There are minimal ecological impact from effluent discharge	Responsible	1	1
5.6 Grading, slaughter and transportation are carried out with respect to welfare	Aspiring	1	0
5.7 The farm provides eel for restocking	Responsible	2	2
5.8 The farm provides eel for are not graded out slow-growers	Aspiring	2	0
Total		13	8/13
Percentage Responsibility Score:		62 %	

Finding: Nounemaroc has scored 62% Responsibility for Component 5: Eel farming and therefore should be considered **RESPONSIBLE** under the SEG standard.

Summary of assessment and scoring

Component	Not Met	Aspiring	Responsible
1	0	4	4
2	0	6	4
4	0	5	7
5	0	5	8
Total	0	20	23
Total Responsibility Score: = 23/43			53 %

Summary finding:

With a total responsibility score of 53% it can be considered that Nounemaroc have achieved the SEG Standard at the **Responsible level**. However, improvements need to be made before the next audit. The fishery should also be audited more thoroughly next year.

5. Recommendations:

Nounemaroc eel farm is a special case where the chain is integrated from fishing to export sales. It was therefore assessed on the 4 components General Requirements, Glass eel fishing, Eel buying and trading, Eel farming. On the other hand, the farm is located in Morocco (outside the EU), and the rating of some may be assessed in the future depending on the evolution of the local context and regulations.

Recommended improvements for the next assessment are:

1. Criterion 1.5.1, 1.5.2: Daily mortality is recorded for the production site. It must be specified for the next audit which cohort or eel caliber the mortality corresponds to (glass eels, elvers, eel by age).
2. Criteria 1.5.3: Actually, there are no tests and analyses carried out for disease on the restocked eels because glass eels fishery and restocking are on the same catchment. But according to this point, analyses for disease should be carried out for next restocking operation.
3. Criteria 2.4: At the time of the audit, the glass eel fishery was over. The issues of stocking and fishing mortality will be carefully considered. Details of on-farm quarantine mortalities should be presented (maximum 8%).
4. Criterion 2.5 and 2.6: It was not possible to visually assess the impact of the fishery on by-catch and protected species. This point will be looked at carefully during the next audit.
5. Criterion 4.2 and 5.1: In order to be able to assess mortality more accurately (conversion from weight to number). It must be specified which cohort or eel caliber the mortality corresponds to (glass eels, elvers, eel by age).

6. Next Audit

Question	Performance of the Client at Audit	Yes	No
1	Has the client been part of any external investigation which may be of concern to SEG AND/OR been suspended from any other certification standard?	Enhanced Surveillance	Go to Q2
2	Has the client received a borderline ¹ pass for a Component in its previous audit?	Enhanced Surveillance	Go to Q3
3	Does the client only buy and sell product (does not physically handle it?)	Minimum Surveillance	Go to Q4
4	All other scenarios	Standard Surveillance	

¹ A borderline pass, under versions 1.0 to 5.0 of the standard, was considered a pass when one less amber indicator is received then would be required to fail (i.e. 5 green indicators and 4 amber indicators) or when a client is certified with equal number of amber and green indicators.

	Certification Audit	Year 1	Year 2	Year 3	Year 4 Recertification Audit
Minimum Surveillance	On-Site Audit	No Audit	Remote Audit	No Audit	On-Site Audit
Standard Surveillance	On-Site Audit	No Audit	On-Site Audit	No Audit	On-Site Audit
Enhanced Surveillance	On-Site Audit	On-Site Audit	On-Site Audit	On-Site Audit	On-Site Audit

We recommend a surveillance audit **from the beginning of 2022** in order to audit the fishery more thoroughly and to verify that the recommendations are being taken into account.

7. The Assessment

The tables below give the standard and a rationale for the scores given above. The score is highlighted in the appropriate colour.

Component 1 – Generic requirements (Weighting : 1 for each criterion)	
Criterion 1.1: Commitment to legality	
Responsible indicators	For at least the past two years: the organisation has not been found guilty for any offences relating to eel fishing or trading.
Aspiring indicators	For at least the past 12 months: the organisation has not been found guilty for any offences relating to eel fishing or trading.
Discussion	<p>The Nounemaroc company has a permit to exploit the Oued Sebou, which is renewed twice a year, provided that it meets the related obligations.</p> <p>The Water and Forests authorities are present at the landing to issue a hawking permit allowing the transport to the company but also to record the weight entering the company and.</p> <p>The authorities are present at each export to verify the packaging of the eels.</p> <p>No violations have been noted against the company Nounemaroc over the last two years.</p>
Score	Responsible indicator

Criterion 1.2: Contribution to Eel Conservation Projects. (Optional bonus score) (The intention is for this to be mandatory from summer 2020)	
Responsible indicators	The organisation donates at least 2% of its profits or at least 20% of its corporate responsibility programme to projects that make a positive contribution to eel conservation or population enhancement, such as Eel Stewardship Funds, River Restoration projects, conservation and education projects.
Aspiring indicators	The organisation donates 1 – 1.99% of its profits or 10 - 20% of its corporate responsibility programme to projects that make a positive contribution to eel conservation or population enhancement, such as Eel Stewardship Funds, River Restoration projects, conservation and education projects.
Discussion	<p>Nounemaroc plans to financially support the Eel Management Plan.</p> <p>The amounts are not yet known.</p>
Score	Not applicable

Criterion 1.3: The organisation trades in certified responsibly sourced eel

Responsible indicators	The organisation trades in at least 50% (by number) of certified responsibly sourced eel and has the documentation to demonstrate that.
Aspiring indicators	The organisation trades in 10 – 49.9% (by number) of certified responsibly sourced eel and has the documentation to demonstrate that.
Discussion	<p>The Nounemaroc company works with 49 fishermen of the Oued Sebou. They are listed with the authorities and hold a fishing card in the name of the company Nounemaroc.</p> <p>The fishery does not have a label until now. A visit to the fishery was carried out as part of this audit.</p>
Score	Aspiring (See score for Component 2)

Criterion 1.4: Traceability	
1.4.1: Traceability - Incoming product, separation and segregation	
Responsible indicators	<ul style="list-style-type: none"> • Certified and uncertified eel products can be clearly and easily traced back to their source. • Where a fishery or buyer, an electronic tele-declaration system is used. • It operates a clear system which ensures that the product remains separated at all stages from arrival to dispatch from non-certified eel products. • The organisation ensures that any products wishing to make a claim as certified do not contain any non-certified eel-based ingredients. • If resolved through mass- or number- balance calculations, the margin of error does not exceed 2%.
Aspiring indicators	<ul style="list-style-type: none"> • Certified and uncertified eel products can be traced back to their source. • If segregation is not possible, there are clear and auditable records of the numbers of certified and uncertified eels entering the organisation at each facility. • It can demonstrate through auditable records that the number of certified eels exiting the organisation in a year did not exceed the number that entered. • If resolved through mass- or number- balance calculations, the margin of error does not exceed 5% or if a farm, the 2800 pieces per 1 kg of glass eels is applied.
Discussion	<p>The fishery is currently not certified. But all glass eels come only from the Oued Sebou.</p> <p>Each collection is recorded in the entry logbook with the number of the hawking permit issued by the authorities and the fishing sheets.</p> <p>There is a clear and verifiable fish entry logbook. The register is regularly validated by the Moroccan authorities.</p> <p>It can be demonstrated by verifiable records that the number of certified eels leaving the organization has not exceeded the number that entered it on the basis of 2800 pieces for 1 kg of glass eels.</p>
Score	Responsible indicator

1.4.2: Traceability - Outgoing product	
Responsible indicators	<ul style="list-style-type: none"> • Where a fishery or buyer, an electronic tele-declaration system is used • Documentation is well maintained with a maximum of 2% error in the following: <ul style="list-style-type: none"> • The organisation correctly uses batch-coding for labelling certified product, which can be on the packaging for the product, or included in the documentation (e.g. invoice) with the assignment • All product to be sold as certified by an organisation is accompanied by an invoice which meets the following criteria: <ul style="list-style-type: none"> - Includes an appropriate batch code - Includes a record of the quantity (no. & weight) of product and to whom it was sold
Aspiring indicators	<ul style="list-style-type: none"> • Documentation is well maintained. If resolved through mass- or number- balance calculations, the margin of error does not exceed 5% in the following (or if a farm, the 2800 pieces per 1 kg of glass eels is applied): • The organisation correctly uses batch-coding for labelling certified product, which can be on the packaging for the product, or included in the documentation (e.g. invoice) with the assignment. • All products to be sold as certified by an organisation are accompanied by an invoice which meets the following criteria: <ul style="list-style-type: none"> - Includes an appropriate batch code. - Includes a record of the quantity (no. & weight) of product and to whom it was sold.
Discussion	<p>A register of the exits is available in paper and computer format.</p> <p>For each exit, the date, the nature (live or frozen fish), the quantity in kg, the average weight, the destination, the certificate number and the Cites export number are indicated.</p> <p>The documents attached to the invoice are :</p> <ul style="list-style-type: none"> - The Cites document issued by the authorities - The certificate of origin issued by the authorities - A letter of commitment to the export of the company Nounemaroc - A health certificate issued by the veterinary services - A certificate of inspection from the customs office. - A routing authorization between the farm and the airport with seal numbers <p>For each shipment, the customs is present at the crating. A seal is put on the truck which is then controlled at the airport.</p>
Score	Responsible indicator

1.4.3: Traceability - Record keeping and documentation	
Responsible indicators	<ul style="list-style-type: none"> • The organisation operates a system that allows the tracking and tracing of all eel from purchase to sale and including any steps in between. In the case of live eels this should include the ability to track each batch delivered to a buyer to be connected back to a water, a time period (maximum duration one month) and specific fisherman/vessel. • If a fisherman or buyer, a tele-declaration system is used to report catches and trade. • The organisation operates a system that also allows for the completion of a batch reconciliation of eel product by weight over a given period. • The organisation maintains records for a minimum of three (3) years.
Aspiring indicators	<p>The above requirements are met except that:</p> <ul style="list-style-type: none"> • Records have been maintained for less than three (3) years • If a fisherman or trader, a tele-declaration system is planned to be used to report catches and trade in the next season
Discussion	<p>Nounemaroc has a software of follow-up of the exploitation allowing to follow the lines of production.</p> <p>A statement of breeding is published each month summarizing the stock in the farm, the entries of the month and the stock. Mortality is monitored daily and recorded.</p> <p>Remote declaration is not in place in the country, either at the level of the fishermen or between the company and the state. This criterion is therefore not applicable. However, the authorities keep a register based on the haul-out sheets (entries) and the export sheets (exits).</p> <p>The records are kept for at least 3 years.</p>
Score	Responsible indicator

Criterion 1.5: Biosecurity & welfare – Eel and eel products are provided with minimal risk of diseases, parasites and alien species	
1.5.2 Eel buying & trading: Biosecurity is present and disease is treated rapidly and appropriately	
Responsible indicators	<ul style="list-style-type: none"> • The use of chemicals follows legal requirements of the appropriate EU regulations and of the country concerned. • The facility has the appropriate permissions to operate from the relevant licensing authority. • An effective and documented biosecurity plan is in place and there is evidence that it is being followed. • Records are available showing regular monitoring of health and a possible sign of stress according to the facility's plan (including the completion of microscope parasite checks) and daily mortality is recorded. • Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility.

Aspiring indicators	<ul style="list-style-type: none"> • The use of chemicals follows legal requirements of the appropriate EU regulations and of the country concerned. • The facility has the appropriate permissions to operate from the relevant authority • An effective and documented biosecurity plan is in place and there is evidence that it is being followed. • Eels are regularly monitored for health and possible signs of stress (although this might not be documented) and daily mortality is recorded. • Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility.
Discussion	<p>The facility has the appropriate authorizations to operate from the competent licensing authority.</p> <p>Chemicals used: nitric acid and soda for the cleaning of the facilities in compliance with Moroccan regulations</p> <p>Regular analyses of the drilling water, fish samples and water from the network.</p> <p>Daily mortality is generally recorded for the production site. However, it should be possible to specify which cohort or eel caliber the mortality corresponds to.</p> <p>In terms of biosecurity, a complete biosecurity plan is available presenting the control of critical points. The deratting is well implemented (invoice from the operator)</p> <p>No medication is used in the farm</p>
Score	Aspiring indicator

1.5.3 Eel farming: Biosecurity is present and disease is treated rapidly and appropriately

Responsible indicators	<ul style="list-style-type: none"> • The facility has the appropriate permissions to operate from the relevant authority. • The use of chemicals follows legal requirements of the EU and of the country concerned. • An effective and documented biosecurity plan is in place and there is evidence that it is being followed. • Daily records are available showing monitoring of fish health and signs of stress and daily mortality is recorded. • Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility. • UV is used at an appropriate level and separation between tanks.
Aspiring indicators	<ul style="list-style-type: none"> • The facility has the appropriate permissions to operate from the relevant licensing authority. • The use of chemicals follows legal requirements of the EU and of the country concerned. • An effective and documented biosecurity plan is in place and there is evidence that it is being followed. • Eels are regularly inspected for disease (although this may not be documented) and daily mortality is recorded. • Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility.
Discussion	<p>The facility has the appropriate authorizations to operate from the competent licensing authority.</p>

	<p>Chemicals used: nitric acid and soda for the cleaning of the facilities in compliance with Moroccan regulations</p> <p>Regular analyses of the drilling water, fish samples and water from the network.</p> <p>Daily mortality is generally recorded for the production site. However, it should be possible to specify which cohort or eel caliber the mortality corresponds to.</p> <p>In terms of biosecurity, a complete biosecurity plan is available presenting the control of critical points. The deratting is well implemented (invoice from the operator)</p> <p>No medication is used in the farm</p>
Score	Aspiring indicator

1.5.4 Restocking: The risk of restocked eels introducing disease into wild populations has been assessed and is minimal

Responsible indicators	Eels are tested before restocking and found to be free of disease AND/OR eels are from a known source which is tested on at least an annual basis and known to be free of disease.
Aspiring indicators	Eels are tested before restocking when first sourced from a new area, and periodically (at least annually) thereafter to ensure they are free from disease.
Discussion	<p>The restocking is done with eels. There are no tests and analyses carried out for disease on the restocked eels. (Oued Sebou)</p> <p>Glass eels fishery and restocking operation are in the same catchment.</p> <p>In order to be consistent with this component, disease test of restocking eels should be scheduled before the next operation.</p> <p>Aspiring, (because good biosecurity in the operation, and eels are released to the same catchment, minimising spread of disease, however, a recommendation for improvement for next audit</p>
Score	Aspiring indicator

Summary scores for Component 1	
Not met	0
Not applicable	1
Aspiring	4
Responsible	4
Total possible	8
% Responsibility (Responsible / Total possible)	50%

Component 2 - Glass eel fishing	
Criterion 2.1: Eel fishing is in a catchment that is meeting its escapement targets	
Weighting: 2	
Sustainable Indicator (worth 2 x Responsible Indicator Score)	There are good data which show to the satisfaction of the fisheries authority that the EU silver eel 40% escapement target (40% B0) is being achieved for the river or in the eel management district.
Responsible indicators	There are good data which show to the satisfaction of the fisheries authority that at least 70% of the Bbest target for silver eel escapement is being met in the river or eel management district.
Aspiring indicators	Eel fishing is in a place accepted by the fishery authority as providing a positive contribution to the eel stock or, the river or RBD is meeting 40% - <70% of the Bbest target.
Discussion	<p>The quota fixed by the Moroccan state to the company Nounemaroc is 1200 kg of glass eels per year. This quota is never totally consumed. For the year 2020, 590 kg have not been consumed. The Nounemaroc company exploits the glass eels according to the needs of its farm.</p> <p>To date, the Moroccan state has not produced an assessment of glass eel recruitment and eel stock. The national management plan is currently under development.</p> <ol style="list-style-type: none"> 1. There is no Eel Management Plan at present and no indication of B0 or BBest 2. The authorities have set a quota limit, based on unknown criteria, and the fishery has never fulfilled that quota 3. Exploitation of Glass eels across Morocco is low – this is one of very few fisheries 4. Estimates of recruitment are planned – to help decide if to put an eel pass on the dam and to inform the forthcoming EMP. 5. There appear to be healthy levels of recruitment – the numbers required for the farm are easily caught in a short period of time 6. There is a dam 30km upstream – good to make good use of the eels <p>It is therefore concluded that there is a sufficient 'surplus' to exploit, 10% of which are used to populate the catchment upstream of the dam, which meets the Aspiring criteria.</p>
Score	Aspiring

Criterion 2.2: There is good progress with the applicant's responsibilities in the Eel Management Plan for the river or District	
Weighting: 2	
Responsible indicators	There is credible progress with at least 75% of the actions relating to the fishery for the implementation of the Eel Management Plan for the river or eel management district.

Aspiring indicators	There is credible progress with at least 50% of the actions relating to the fishery for the implementation of the Eel Management Plan for the river or eel management district.
Discussion	The national management plan is currently under development and may be ready in 2023.
Score	Not applicable

Criterion 2.3: The fishery is well managed	
Weighting: 1	
Responsible indicators	<ul style="list-style-type: none"> • Fishers are licensed and provide catch and effort data via a tele-declaration system. • Data on catch and effort are collected and analysed regularly by the fishery authority (at least annually at the end of the season). • There is a data set for at least the last 5 years that is considered by the fishery authority to be accurate, useful for statistical purposes and provide a comprehensive picture of the glass eel fishery under assessment. • Enforcement is in place throughout the fishing area and there is no evidence of systematic non-compliance.
Aspiring indicators	<ul style="list-style-type: none"> • Fishers are licensed and provide catch and effort data. • Data on catch and effort are collected and analysed regularly by the fishery authority (at least annually at the end of the season). • There is a data set for at least the last 3 years that is considered by the fishery authority to be accurate and provide enough information on the glass eel fishery under assessment for management and to track annual trends in glass eel arrival. • There is no evidence of systematic non-compliance.
Discussion	<p>Nounemaroc is the leaseholder of the Oued Sebou for the fishing of elver. Nounemaroc provides a fishing license to the fishermen authorized to exploit this resource. They have an exclusive contract on this species with Nounemaroc on Oued Sebou. The list of fishermen (49) is registered with the authorities.</p> <p>The fishing of glass eel on Oued Sebou remains very artisanal and no tele-declaration system is in place. Each fisherman fills in a fishing form with his name and the quantity of elvers caught.</p> <p>There are good data for the past 15 years available at the farm. High level of compliance by the fishermen.</p> <p>Collectors recover the elvers caught by the fishermen. The quantities of elvers caught are validated by the Water and Forestry Department at the landing point with the issuance of a hawking permit for transport by the Nounemaroc company. All the nominative fishing sheets are attached to the haul-out permit. The catch data are available by fishing day.</p> <p>The data are transmitted to the authorities and are considered accurate.</p> <p>All data from fishermen in Morocco is currently recorded on paper. This is transcribed into excel spreadsheets at the farm.</p>
Score	Responsible

Criterion 2.4: Mortality during fishing is minimised	
Weighting: 2	
Responsible indicators	<ul style="list-style-type: none"> • Fishing is by hand-held nets and has effective nearby holding facilities OR • Fishing from vessels meets the following criteria: <ul style="list-style-type: none"> i) fishing is at slow speed (no more than 1 knot relative to water); ii) haul duration is on average no longer than 20 minutes, with the maximum duration not more than 30 minutes; iii) mesh size of cod end no greater than 1mm; iv) rest of the net designed such that glass eels do not become trapped or abraded; v) vivier tank on board and in use; vi) fishermen maintain accurate daily records of mortality. OR <ul style="list-style-type: none"> • Fishermen can demonstrate that the mortality rate of the catch over the duration of holding in the storage facility is less than 4% for each batch captured. OR • Fishing methods (in France) meet the criteria in Category 1 of the France Good Practice Guide. OR • The Carmin Indigo or similar test indicates that mortality averages less than 4%.
Aspiring indicators	<ul style="list-style-type: none"> • Fishing from vessels meets the following criteria: <ul style="list-style-type: none"> i) fishing is at slow speed (no more than 1.5 knots relative to water); ii) maximum haul duration no longer than 30 minutes; iii) mesh size of cod end no greater than 1mm; iv) rest of the net designed such that glass eels do not become trapped or abraded; v) vivier tank on board and in use; vi) fishermen maintain accurate daily records of mortality. OR <ul style="list-style-type: none"> • Fishermen can demonstrate that the mortality rate of the catch over the duration of holding in the storage facility is between 4% and 8% for each batch captured. OR • Fishing methods (in France) meet the criteria in Category 2 of the France Good Practice Guide. OR • The Carmin Indigo or similar test indicates that mortality averages between 4% and 8%.
Discussion	<p>At the time of the visit, the glass eel fishery was over. However, a fisherman gave a fishing demonstration. Two types of fishing are practiced, the fishing with push nets as in France, and the fishing with a hand net.</p> <p>The fishing with push nets is practiced by 10 boats with material provided by Nounemaroc. The motorization of the boats is 60 horsepower. Two gears are present on each boat. The nets have an opening of 197cm x 97cm for a length of about 6 m. The mesh size of the nets is 1 mm at the end of the net. During the demonstration, the fishing speed was low and lower than that indicated in the guide of Good Practices of France (even if it could not be measured) taking into account the low motorization and the surface of the nets.</p> <p>The second and more rudimentary technique is the hand net. They are made by the fishermen with recycled materials. The size and mesh size is not standard. However, the fishing speed is zero.</p> <p>It was not possible to verify the presence of fish tanks or polystyrene boxes for the storage of glass eels as the glass eel fishery was over</p> <p>The fishermen deliver directly to the collector at the landing point.</p> <p>A more complete audit or records of fishing mortality should be scheduled.</p>

Score	Aspiring
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Criterion 2.5: The fishery has negligible impacts on by-catch species

Weighting: 1

Responsible indicators	<ul style="list-style-type: none"> • The fishery has a negligible impact on by-catch. • By-catch is returned to the water alive as gently and rapidly as possible.
Aspiring indicators	<ul style="list-style-type: none"> • The fishery has low-level impacts on by-catch. • By-catch is returned to the water alive as gently and rapidly as possible.
Discussion	<p>It was not possible to see any real fishing action. However, during the demonstration, by-catches of mainly juvenile mullet and shrimp were quickly discarded</p> <p>A more complete audit of the fishery should be scheduled to verify this point.</p>
Score	Aspiring indicator

Criterion 2.6: The fishery has negligible impacts on rare or other protected species

Weighting: 1

Responsible indicators	The fishery has no direct interactions resulting in mortality or injuries with other species that are considered vulnerable, threatened, endangered or are protected under national or international law.
Aspiring indicators	Interactions, resulting in mortality or injury, with other species that are considered vulnerable, threatened, endangered, or are protected under national or international law, are rare and have no overall measurable impact on the population.
Discussion	<p>The fishery does not appear to cause mortality or injury to rare or other protected species.</p> <p>A more complete audit of the fishery should be scheduled to verify this point</p>
Score	Aspiring indicator

Criterion 2.7: The fishery has negligible impacts on habitats

Weighting: 1

Responsible indicators	The fishing gear does not cause any damage to the benthos.
Aspiring indicators	Damage to the benthos by gear is limited or minimal.
Discussion	Fishing with a sieve or a dip net is done on the surface of the water, so there is no interaction with the benthos.
Score	Responsible indicator

Criterion 2.8: Transport	
Weighting: 1	
Responsible indicators	<ul style="list-style-type: none"> • The operator holds the relevant transport authorisations. • There is a Transport Plan in place to minimise travel time – this meets the Transport requirements for vertebrates. • Packing is done in a way that minimises handling, time and stress. • Eels are kept cool and wet with an adequate supply of oxygen.
Discussion	<p>On landing, a hawking permit indicating the weight of glass eels is issued by the Water and Forestry authorities. It allows the transport of the glass eels between the landing area and the Nounemaroc company.</p> <p>The landing point of the fishery is located 15 minutes from the company, which limits the transport time. The glass eels are transported between the landing point and the farm by van with sanitary certificate.</p>
Score	Responsible indicator

Criterion 2.9: Bonus Score: Fishermen donate a proportion of their catch for a local positive contribution	
Weighting: 1	
Responsible indicators	Fishermen have donated an average of at least 5% of their catch in the past 2 years to local stocking programmes, e.g. translocating over barriers to aid upstream migration and recruitment in the catchment, or have credible plans in place to do so next season (note that this is separate from any planned restocking to meet the 60% target).
Discussion	The company Nounemaroc has the obligation to restock 10% of the number of glass eels caught under its lease contract. Its lease contract is not renewed if the restocking obligation is not fulfilled. The restocking is carried out at the elver stage (about 3-5 g on average) with fish about 5-6 months old. The quantity is restocked in two times during the year
Score	Responsible indicator

Summary scores for Component 2	
Not met	0
Not applicable	2
Aspiring	6
Responsible	4
Total possible	10
% Responsibility (Responsible / Total possible)	40%

Component 4 - Eel buying and trading	
Criterion 4.0: Segregation of certified and uncertified eels	
Weighting: 2	
Responsible indicators	Certified and non-certified are kept separated, from point of collection through holding to sale and onward transport
Aspiring indicators	None
Discussion	Fish received can be regarded as certified at Aspiring level (see Component 2). The farm has plenty of tanks, so has the facilities for segregation if required.
Score	Responsible

Criterion 4.1: The Glass eel holding facility is a registered Aquaculture Production Business	
Weighting: 1	
Responsible indicators	The Glass eel holding facility is a registered Aquaculture Production Business
Aspiring indicators	The facility is not a registered Aquaculture Production Business, but has credible plans to register within the next 6 months
Discussion	Nounemaroc eel farm is a registered Aquaculture Production Business with the Moroccan authorities
Score	Responsible indicator

Criterion 4.2: Mortality in storage facility	
Weighting: 2	
Responsible indicators	Mortality rate over the season is less than 2% on average.
Aspiring indicators	Mortality rate over the season is less than or equal to 5% on average but greater than or equal to 2%
Discussion	Mortality was evaluated from the number of elvers entered (base 2800 elvers/kg), the number of elvers restocked and the number remaining at the end of the first year. This mortality is estimated at 1.7%. However, it is difficult to calculate accurately as the mortality figures for different sizes of eels are not recorded. Improved recording will be needed to assess this more accurately to be sure that it is less than 2%.
Score	Aspiring indicator

Criterion 4.3: Mortality during transport and initial holding if transported to farm

Weighting: 2	
Responsible indicators	<ul style="list-style-type: none"> Buyers source at least 90% of their eels from certified suppliers OR Mortality during transport and for the first week at the farm is less than 2% on average
Aspiring indicators	<ul style="list-style-type: none"> Buyers source 50% - 89.9% of their eels from certified suppliers OR Mortality during transport and for the first week at the farm is less than or equal to 3% on average but greater than or equal to 2% on average.
Discussion	<p>There is no intermediary between fishing and entering the farm.</p> <p>The eels are transported by the farm's van the short (15 min driving) distance to the farm. The van is accredited for the transport of animals. 100% of eels come from the fishery which has passed the assessment at Component 2.</p>
Score	Responsible

Criterion 4.4: Water quality	
Weighting: 1	
Responsible indicators	<ul style="list-style-type: none"> A system is in place that is expected to keep key water quality parameters within suitable tolerances for healthy eel survival (e.g. Ammonia, Suspended Solids, pH, Oxygen) Water quality management procedures are in place including regular monitoring of relevant parameters which shows that water quality is always high and stable The facility operates a back-up system to ensure that water quality will not adversely affect survival rates in the case of an equipment failure
Aspiring indicators	<ul style="list-style-type: none"> A system is in place that is expected to keep key water quality parameters within suitable tolerances for healthy eel survival (e.g. Ammonia, Suspended Solids, pH, Oxygen) The facility has a minimum of a back-up generator and oxygen supply
Discussion	<p>The system operates in a closed circuit with continuous monitoring of oxygen, temperature, pH and conductivity. A parameter control system is present for each production line. The quality of the water from the well and the water from the network is regularly controlled.</p> <p>Alarms are in place if threshold values are exceeded.</p> <p>The farm has an emergency generator to prevent any power failure.</p> <p>There is also and separated liquid oxygen tank linked for automatic use should the system loose power</p>
Score	Responsible indicator

Criterion 4.5: Handling and welfare

Weighting: 1	
Responsible indicators	<ul style="list-style-type: none"> • Systems are in place and the facility is designed to keep handling to an absolute minimum • Documented procedures are in place for handling, and handling, where necessary, is careful • The infrastructure is designed to avoid injuries, and so that the use of nets is rarely necessary. When used, nets are small-mesh (1mm maximum) • Eels are moved without being allowed to dry out.
Aspiring indicators	<ul style="list-style-type: none"> • The facility may not be optimally designed, but systems are in place to avoid handling as much as possible within the constraints of the facility • Handling, where necessary, is carefully planned and executed • The infrastructure has been optimised as far as possible to avoid injuries • Nets are small-mesh (1mm maximum) • Eels are moved without being allowed to dry out.
Discussion	<p>The facility has been designed to limit handling of eels at all stages possible. This includes efficient pipe and channel systems for emptying tanks, rinsing fish while cooling them down, weighing and packaging.</p> <p>Eels are never permitted to dry out at any stage of handling, from receipt at the facility, through initial weighing and later during packaging.</p> <p>Documented procedures for the handling of eels at the facility were not presented therefore a responsible indicator cannot be provided.</p>
Score	Aspiring indicator

Criterion 4.6: Transport	
Weighting: 1	
Responsible indicators	<ul style="list-style-type: none"> • There is a Transport Plan in place to minimise travel time – this meets the Transport requirements for vertebrates • Packing is done in a way that minimises handling, time and stress • Eels are kept cool and wet with an adequate supply of oxygen • The operator holds the relevant transport authorisations
Discussion	<p>Nounemaroc has the necessary transport authorizations both between the fishery and the farm but also for export.</p> <p>For glass eels, the travel time between the fishery and the farm is very short, about 15 minutes.</p> <p>For the export of live eels, the eels are placed in polystyrene transport boxes. The basins are located on high ground and emptied to a chute by gravity. In this chute, the eels are cooled to 3° C to reduce their activity and stress. Each box holds about 10 kg of eels. Depending on the outside temperature, a bottle of ice can be added to each box. Oxygen is put in each box before closing. The eels are then transported by truck to the airport and then shipped by plane.</p>
Score	Responsible indicator

Criterion 4.7: The required percentage of glass eels is being used for restocking	
Weighting: 2	
Responsible indicators	<ul style="list-style-type: none"> The buyer can provide documented evidence that <u>they have sold</u> at least 60% for restocking the required target percentage of its glass eels from the last season for the primary purpose of conservation / escapement. The eels for restocking are representative of the stock – slow growers are not selected
Aspiring indicators	<ul style="list-style-type: none"> The buyer can provide documented evidence that they <u>have reserved or made available at least 60%</u> of the required target percentage of its glass eels from the latest season available for the primary purpose of conservation / escapement, OR The buyer can provide documented evidence that it has made available glass eels to the maximum level possible within the constraints of the implementation of the EMP in that country OR The buyer can provide credible evidence that re-stocking will occur in the forthcoming season. The eels for restocking are representative of the stock – slow growers are not selected
Discussion	<p>The company Nounemaroc has the obligation to restock 10% of the number of glass eels caught under its lease contract. Its lease contract is not renewed if the restocking obligation is not fulfilled. The restocking is carried out at the elver stage (about 3-5 g on average) with fish about 5-6 months old. The quantity is restocked in two times during the year.</p> <p>Nounemaroc is fulfilling their legal obligations set by the Moroccan authorities. The legislation is different (less restrictive) than the EU. However, the SEG standard requires the 60% of glass eels caught to be used for restocking, so the standard is not met at the responsible level.</p>
Score	Aspiring

Summary scores for Component 4	
Not met	0
Not applicable	0
Aspiring	5
Responsible	7
Total possible	12
% Responsibility (Responsible / Total possible)	58%

Component 5 – Eel farming	
Criterion 5.0: Segregation of certified and uncertified eels	
Weighting: 2	
Responsible indicators	<ul style="list-style-type: none"> Certified and non-certified are kept separated, from point of collection through holding to sale and onward transport
Aspiring indicators	<ul style="list-style-type: none"> Through mass-balance calculations (by number), the organisation can prove that no more than the same percentage of certified eels were output as were input, whilst taking mortality into consideration. A formula of 2,800 pieces per 1 kg of glass eels can be applied
Discussion	<p>The fishery is regarded as certified (see component 2)</p> <p>There are good facilities to enable segregation.</p>
Score	Responsible

Criterion 5.1: The total mortality rate during the culture process is low	
Weighting: 2	
Responsible indicators	<ul style="list-style-type: none"> The Percentage Mortality Rate of eels in culture is less than or equal to 10% on average in the current and previous year OR as an average of the previous five years An accurate daily log is maintained of the number and causes of mortality
Aspiring indicators	<ul style="list-style-type: none"> The Percentage Mortality Rate of eels in culture is between 10 and 15% on average in the current and previous years OR as an average of the previous five years. An accurate daily log is maintained of the number of mortalities
Discussion	<p>The Percentage Mortality Rate of eels in culture is between 10 and 15% on average in the current and previous years. This was calculated by looking at the number of eels entering the farm compared to the number of eels restocked, the number of eels exported and the number of eels remaining on the farm. This calculation is based on 2800 glass eels per kg</p> <p>A daily record of mortalities is kept by weight but the size of dead eels is not available. At a minimum, mortality by eel cohort or size should be recorded.</p>
Score	Aspiring indicator

Criterion 5.2: The fish meal/oil ingredients in the feed come from a responsible source	
Weighting: 1	
Responsible indicators	Fish meal/oil in the feed (including juvenile feeds) is certified by IFFO or MSC or shown in some other way to be from responsible or sustainable sources
Aspiring indicators	Fish meal/oil in the feed (including juvenile feeds) is not certified by IFFO or MSC or shown to be from responsible sources, but there are credible plans to move to such a supplier within 2 years
Discussion	The farm has two feed suppliers Biomar and Altech Coppens. Biomar supplier indicates that there is no specific ASC standard for eel feed. However, BioMar continually evaluates the purchasing criteria necessary to ensure and document that marine and non-marine feedstocks meet the ASC requirements for social responsibility. BioMar uses raw materials that can be traced back to their source of origin and a significant portion of which are IFFO and MSC certified. Altech Coppens indicate that the fishmeal used to produce the eel is certified by MarinTrust (IFFO RS). The fish oil is partially certified by MarinTrust (IFFO RS), depending on the origin. All of the fish oil is from trimmings and thus not putting any pressure on wild fish stocks.
Score	Responsible

Criterion 5.3: Feed is used as efficiently as possible	
Weighting: 1	
Responsible indicators	The average feed conversion ratios in the farm are as follows: glass eel to fingerlings: 1.1 or less fingerlings to 200g: 1.6 or less large eels: 2.0 or less
Aspiring indicators	The average feed conversion ratios in the farm are as follows: glass eel to fingerlings: 1.3 or less fingerlings to 200g: 1.8 or less large eels: 2.2 or less
Discussion	The average conversion rate on the farm is around 1.4-1.45 For elver, it is around 1.3. For eels under 200 g, it is around 1.2 For large eels, it is around 1.7. The responsible criterion is thus reached
Score	Responsible indicator

Criterion 5.4: Water quality	
Weighting: 1	
Responsible indicators	<ul style="list-style-type: none"> • A system is in place that is expected to keep key water quality parameters within suitable tolerances for healthy eel survival (e.g. Ammonia, Suspended Solids, pH, Oxygen) • Water quality management procedures are in place including regular monitoring of relevant parameters which shows that water quality is always high and stable • Water quality monitoring is linked to an alarm-based system in the event of a sudden drop in water quality • The facility operates a back-up system to ensure that water quality will not adversely affect survival rates in the case of a power supply failure.
Aspiring indicators	<ul style="list-style-type: none"> • A system is in place that is expected to keep key water quality parameters within suitable tolerances (e.g. Ammonia, Suspended Solids, pH, Oxygen) • Water quality management procedures are in place and there is regular monitoring of relevant parameters which shows that water quality is always high and stable.
Discussion	<p>The system operates in a closed circuit with continuous monitoring of oxygen, temperature, pH and conductivity. A parameter control system is present for each production line. The quality of the water from the well and the water from the network is regularly controlled.</p> <p>Alarms are in place if threshold values are exceeded.</p> <p>The farm has an emergency generator to prevent any power failure.</p> <p>There is also and separated liquid oxygen tank linked for automatic use should the system loose power</p>
Score	Responsible indicator

Criterion 5.5: There are minimal ecological impacts from effluent discharge	
Weighting: 1	
Responsible indicators	<ul style="list-style-type: none"> • The system is closed-circuit and has no discharge OR • Effluent discharge is regularly tested by the farm AND • Effluent discharge complies with all local and national requirements AND • Has not been found to be non-compliant in the past 5 years.
Aspiring indicators	<ul style="list-style-type: none"> • Effluent discharge is regularly tested by the farm AND/OR • Has been found to be non-compliant on no more than 1 occasion in the past 5 years.
Discussion	<p>The system is in closed circuit and therefore has little rejection.</p> <p>The evacuation is done towards the collective sanitation. (Water treatment plant).</p>
Score	Responsible indicator

Criterion 5.6: Grading, slaughter and transportation are carried out with respect to welfare	
Weighting: 1	
Responsible indicators	<ul style="list-style-type: none"> Grading is completed in an efficient manner Slaughter is completed by a method that provides an instant death or renders them insensible to pain, i.e. electric stunning or percussive stunning. Procedures are in place to ensure transportation provides suitable conditions for fish welfare.
Aspiring indicators	<ul style="list-style-type: none"> Other, previously acceptable methods of stunning before slaughter are used, e.g. chilling, but there are credible plans in place to invest in the latest methods within the next 2 years
Discussion	<p>The eels are sorted with a specific machine for small eels up to 22g, and another one for eels from 22g to 1kg. Grading is done using standard grading machines where by eels are pumped from the tanks to the grading machine which sorts the sizes into boxes which can then be weighed before the eels are returned to the tanks. Eels are never allowed to dry out during the process and are handled as little as possible.</p> <p>The method of stunning before slaughter is refrigeration. The fish are placed in water at 23°C to - 3°C inducing a lethal thermal shock for the fish.</p> <p>Fish sold live are gradually cooled and then packed with oxygen in polystyrene boxes. Depending on the destination, the time of the year and the travel time, a bottle of ice can be added in the polystyrene box.</p> <p>More than 95% of the fish are sold live and less than 5% are slaughtered by refrigeration. In the event of an increase in the production of frozen eels, the Nounemaroc company will consider the implementation of other slaughter methods.</p>
Score	Aspiring indicator

Criterion 5.7: The organisation provides eel for restocking	
Weighting: 2	
Responsible indicators	The organisation can provide documented evidence that 10% or more of the farm's annual eel production (by piece) <u>has been provided</u> for restocking for the purpose of conservation / escapement.
Aspiring indicators	The organisation can provide documented evidence that it makes 10 % of their annual eel production (by piece) <u>available</u> for restocking for the primary purpose of conservation / escapement AND/OR for new clients, the farm can demonstrate that they have bookings for re-stocking in the following year at more than 10% of the predicted annual eel production (by piece) for the purpose of conservation / escapement.
Discussion	<p>The farm provides 10% of the number of glass eels entering the farm for restocking. This is an obligation for the renewal of the exploitation permit.</p> <p>The documents concerning the quantities of eels restocked are signed by the Moroccan authorities.</p> <p>The quantity of eels is calculated from an average weight determined on a sample by the Water and Forestry authorities.</p>

	The operation is monitored by the Water and Forestry authority from the time the eels are crated until they are released.
Score	Responsible indicator

Criterion 5.8: Eels for restocking are not graded out slow-growers	
Weighting: 2	
Responsible indicators	The size range and quantities in the eels for restocking reflect 100% that for the age group in the whole farm
Aspiring indicators	The size range and quantities indicate no more than a 25% supplement of those for restocking are from slower growing fish of the same age group.
Discussion	The size range of the restocked eels was very heterogeneous (between 90 and 170 mm in a sample of 50 individuals). The restocked eels were generally 5 to 6 months old. It is difficult to assess the proportion of slow-growing fish in the restocking batch. The company announces a quantity of about 20% of slower growing fish.
Score	Aspiring indicator

Summary scores for Component 5	
Not met	0
Not applicable	0
Aspiring	5
Responsible	8
Total possible	13
% Responsibility (Responsible / Total possible)	62%