



***BioAtlantis***

**Nature Working Naturally™**

License Application for Sustainable hand-harvesting of *Ascophyllum nodosum* at Clew Bay (SAC Site Code 1482). In accordance with National Parks & Wildlife Service conservation objectives for marine and coastal habitats and species, and the EU Habitats Directive 92/43/EEC.

**Appendix 1:**  
**Replies to individual Submissions, R21-R35**  
**(ref: FS 6269)**

Prepared by: BioAtlantis Ltd.  
Date of issue: 02/03/2015

BioAtlantis Ltd,  
Clash Industrial Estate,  
Tralee,  
Co. Kerry.

### Introduction:

Each submission received by the Department during public consultation has been assigned codes in accordance with the order in which they were received (i.e. submission no.1, no.2, etc). The number associated with each submission is marked on the top right hand corner of each submission document. BioAtlantis has issued a reply to each of the individual submissions received, each of which are provided in this document. For clarity, the reply to each submission is indicated using codes (see index below). For example, reply number 'R1' is written in response to submission no. 1, etc. These reply letters directly address each person who took time out to write their submission. We encourage all those who wrote their submissions to read the reply letters written especially for them.

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**Reply to: Submission number 21**

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and wish to meet other harvesters also. We envisage that traditional hand harvesters in Clew Bay will continue to harvest in the same locations as they have done for generations, in a traditional manner. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

We agree with comments regarding the sale of Arramara Teoranta. Údarás na Gaeltachta sold Arramara to a Canadian company called Acadian Seaplants. Acadian under the guise of Arramara have now applied for a licence to harvest seaweed from Loop head, Co. Clare to Belmullet, Co. Mayo. BioAtlantis believe that this will weaken competition in the sector. If Acadian is in control of the entire area from Clare to North Mayo, then they can pick and choose harvesters and determine the conditions of supply. It would also place BioAtlantis and other Irish processors in an unacceptable situation where they would be potentially dependent on their major competitor, Acadian, for their supply.

If successful, our application will provide an alternative, viable and sustainable outlet for seaweed harvested in Clew Bay. This will be good for competition and will ensure that local harvester's rights are protected. BioAtlantis will employ existing traditional harvesters from Clew Bay who will continue harvesting as they have done for decades. It also ensures that we, as a company, take responsibility for environmental obligations required to work in this Special Area of Conservation.

BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so. BioAtlantis will operate a collection vessel in the Clew Bay area which will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.


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R21

We appreciate your comments and welcome any further suggestions as to potential improvements to the plan.

Best regards,

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2<sup>nd</sup> April 2015

Page 2 of 2

Reply to: Submission number 22

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and would be very happy to meet with you also. We envisage that traditional hand harvesters will continue to harvest in the same locations as they have done for generations, in a traditional manner. In terms of your specific concerns, we wish to reply as follows:

**1. Monopolisation of the seaweed resource**

As you may be aware, Údarás na Gaeltachta sold Arramara Teo to a Canadian company, called Acadian Seaplants. Acadian under the guise of Arramara have now applied for a licence to harvest seaweed from Loop head, Co. Clare to Belmullet, Co. Mayo. BioAtlantis believe that this will weaken competition in the sector. If Acadian is in control of the entire area from Clare to North Mayo, then they can pick and choose harvesters and determine the conditions of supply. It would also place BioAtlantis and other Irish processors in an unacceptable situation where they would be potentially dependent on their major competitor, Acadian, for their supply.

**2. Income and employment conditions**

Local farmers and harvesters should be at the heart of economic development in Clew Bay. A licence for BioAtlantis will allow harvesters and authorities to compare the price of raw material terms and conditions versus harvesters in other parts of the country. This is preferable to a scenario whereby Acadian/Arramara alone control the *A. nodosum* resource from Clare to north Mayo. As stated on line 40 on page 3 of our application, BioAtlantis wish to ensure that "harvesters can grow their business as employees or subcontractors of BioAtlantis". BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so.

**Collection Vessel:** BioAtlantis will operate a collection vessel in the Clew Bay area. This will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.

**3. Track record of BioAtlantis.**

BioAtlantis is registered by the Department of Agriculture in Ireland for the manufacture and sale of feed material. BioAtlantis are accredited as having 'Good Manufacturing Practices', by GMP+ International B.V., one of the highest feed safety standards in the world, requiring high standards in traceability, quality and safety. A highly qualified professional team is in place in BioAtlantis covering science and engineering fields. BioAtlantis have three patents filed on benefits arising from seaweed extracts and have over 20 peer reviewed publications on the same subject.

**4. Local knowledge**

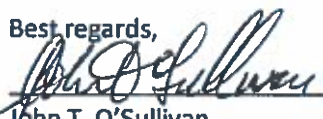
BioAtlantis are cognisant of the fact that hand harvesters have an in depth knowledge of local issues and sustainable methods of hand harvesting. In our application we state that we will take an adaptive approach and work to include local knowledge as to best practice when approaching sites and other issues as they emerge. This will require time spent with harvesters to establish which sites are of relevance to each individual. We believe the best way to ensuring sustainability is to use the best of industry in conjunction with the best of local harvesters.

**5. BioAtlantis into the future**

Our aim is to be the global brand leader in biostimulant and nutraceutical technology. The company have a long term vision and have no intention of selling the business.

We hope that this letter addresses your concerns. We appreciate your comments and we would like to meet with you to explain our plan further. We hope that you will work with us and provide us with harvested seaweed from the shore bordering your land.

Best regards,

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2nd March 2015

Reply to: Submission number 23

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and would be very happy to meet with you also. We envisage that you and others will continue to harvest in the same locations as you have done for generations, in a traditional manner. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

As you may be aware, Údarás na Gaeltachta sold Arramara Teoranta to a Canadian company, called Acadian Seaplants. Acadian under the guise of Arramara have now applied for a licence to harvest seaweed from Loop head, Co. Clare to Belmullet, Co. Mayo. BioAtlantis believe that this will weaken competition in the sector. If Acadian is in control of the entire area from Clare to North Mayo, then they can pick and choose harvesters and determine the conditions of supply. It would also place BioAtlantis and other Irish processors in an unacceptable situation where they would be potentially dependent on their major competitor, Acadian, for their supply.

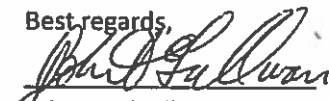
If successful, our application will provide an alternative, viable and sustainable outlet for seaweed harvested in Clew Bay. This will be good for competition and will ensure that local harvester's rights are protected. BioAtlantis will employ existing traditional harvesters from Clew Bay who will continue harvesting as they have done for decades. It also ensures that we, as a company, take responsibility for environmental obligations required to work in this Special Area of Conservation.

BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so. BioAtlantis will operate a collection vessel in the Clew Bay area. This will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.



We appreciate your comments and welcome any further suggestions as to potential improvements to the plan. We would like to meet with you to explain our plan further and hope that you will work with us and provide us with harvested seaweed from the shore bordering your land of inner Clew Bay along the townland of Ross.

Best regards,

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2<sup>nd</sup> March 2015



**Reply to: Submission number 24**

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and would be very happy to meet with you also. We envisage that you and others will continue to harvest in the same locations as you have done for generations, in a traditional manner. In terms of your specific concerns, we wish to reply as follows:

**1. Traditional harvesting of seaweed bordering your land**

We are committed to working only with local traditional harvesters. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

We would like to meet with you to explain our plan further and hope that you will supply us with harvested seaweed from the shore surrounding Crovenish Island.

**2. Respect for the environment**

We are very cognisant of the fact that traditional methods of hand harvesting are sustainable. For this reason, we chose the traditional method of harvesting in our application. As you know, there are a broad range of marine and coastal habitats and species in the SAC which must be protected. BioAtlantis have developed our application on the basis of ensuring that these conservation objectives are met. We have also developed mitigation measures to ensure that impacts do not occur. This is described in the Natural Impact Statement (NIS) enclosed with our application.

**3. Income to the local community**

We recognise that harvesting is an important supplementary income and we want to ensure that this is sustained. As stated on line 40 on page 3 of our application, our plan will ensure that "harvesters can grow their business as employees or subcontractors of BioAtlantis". BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so.




- **Collection vessel:**

BioAtlantis will operate a collection vessel in the Clew Bay area. This will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.

We appreciate your comments and welcome any further suggestions as to potential improvements to the plan. Also, we would be very interested in meeting with you with the view to discussing your suggestions for harvesting on the shore alongside your land at Crovenish island.

Best regards,

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2<sup>nd</sup> March 2015

Reply to: Submission number 25

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and would be very happy to meet with you also. We envisage that you and others will continue to harvest in the same locations as you have done for generations, in a traditional manner. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".


As you may be aware, Údarás na Gaeltachta sold Arramara Teo to a Canadian company, called Acadian Seaplants. Acadian under the guise of Arramara have now applied for a licence to harvest seaweed from Loop head, Co. Clare to Belmullet, Co. Mayo. BioAtlantis believe that this will weaken competition in the sector. If Acadian is in control of the entire area from Clare to North Mayo, then they can pick and choose harvesters and determine the conditions of supply. It would also place BioAtlantis and other Irish processors in an unacceptable situation where they would be potentially dependent on their major competitor, Acadian, for their supply.

If successful, our application will provide an alternative, viable and sustainable outlet for seaweed harvested in Clew Bay. This will be good for competition and will ensure that local harvester's rights are protected. BioAtlantis will employ existing traditional harvesters from Clew Bay who will continue harvesting as they have done for decades. It also ensures that we, as a company, take responsibility for environmental obligations required to work in this Special Area of Conservation.

BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so. BioAtlantis will operate a collection vessel in the Clew Bay area which will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.

We appreciate your comments and welcome any further suggestions as to potential improvements to the plan. We would like to meet with you to explain our plan further and hope that you will work with us and provide us with harvested seaweed from the shore bordering your land of inner Clew Bay along the townland of Rosnakilly.

Best regards,

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2<sup>nd</sup> March 2015

Reply to: Submission number 26

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and would be very happy to meet with you also. We envisage that you and others will continue to harvest in the same locations as you have done for generations, in a traditional manner. In terms of your specific concerns, we wish to reply as follows:

**1. Monopolisation of the seaweed resource**

Údarás na Gaeltachta sold Arramara to a Canadian company, called Acadian. Acadian under the guise of Arramara have now applied for a licence to harvest seaweed from Loop head, Co. Clare to Belmullet, Co. Mayo. BioAtlantis believe that this will weaken competition in the sector. If Acadian is in control of the entire area from Clare to North Mayo, then they can pick and choose harvesters and determine the conditions of supply. It would also place BioAtlantis and other Irish processors in an unacceptable situation where they would be potentially dependent on their major competitor, Acadian, for their supply.

If successful, our application will provide an alternative, viable and sustainable outlet for seaweed harvested in Clew Bay. This will be good for competition and will ensure that local harvester's rights are protected. BioAtlantis will employ existing traditional harvesters from Clew Bay who will continue harvesting as they have done for decades. It also ensures that we, as a company, take responsibility for environmental obligations required to work in this Special Area of Conservation.

**2. Income and employment conditions**

Local farmers and harvesters should be at the heart of economic development in Clew Bay. A licence for BioAtlantis will allow harvesters and authorities to compare the price of raw material terms and conditions versus harvesters in other parts of the country. This is preferable to a scenario whereby Acadian/Arramara alone control the *A. nodosum* resource from Clare to north Mayo. As stated on line 40 on page 3 of our application, BioAtlantis wish to ensure that "harvesters can grow their business as employees or subcontractors of BioAtlantis". BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to support a market leading price to seaweed harvesters. We will ensure that the local economy benefits from our presence in Clew Bay.

**Collection Vessel:** BioAtlantis will operate a collection vessel in the Clew Bay area. This will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.

**3. Track record of BioAtlantis.**

BioAtlantis is registered by the Department of Agriculture in Ireland for the manufacture and sale of feed material. BioAtlantis are accredited as having 'Good Manufacturing Practices', by GMP+ International B.V., one of the highest feed safety standards in the world, requiring high standards in traceability, quality and safety. A highly qualified professional team is in place in BioAtlantis covering science and engineering fields. BioAtlantis have three patents filed on benefits arising from seaweed extracts and have over 20 peer reviewed publications on the same subject.

**4. Local knowledge**


BioAtlantis are cognisant of the fact the hand harvesters have an in depth knowledge of local issues and sustainable methods of hand harvesting. In our application we state that we will take an adaptive approach and work to include local knowledge as to best practice when approaching sites and other issues as they emerge. This will require time spent with harvesters to establish which sites are of relevance to each individual. We believe the best way to ensuring sustainability is to use the best of industry in conjunction with the best of local harvesters.

**5. BioAtlantis into the future**

Our vision is to be the global brand leaders in biostimulant and nutraceutical technology. The company have a long term vision and absolutely will not be sold to the highest bidder.

We hope that this letter addresses your concerns. We appreciate your comments and we would like to meet with you to explain our plan further. We hope that you will work with us and provide us with harvested seaweed from the shore bordering your land.

Best regards,

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2nd March 2015

**Reply to: Submission number 27**

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and would be very happy to meet with you also. We envisage that you and others will continue to harvest in the same locations as you have done for generations, in a traditional manner. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** we stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

As you may be aware, Udaras na Gaeltachta sold Arramara to a Canadian multinational, called Acadian. Acadian under the guise of Arramara have now applied for a licence to harvest seaweed from Loop head, Co. Clare to Belmullet, Co. Mayo. BioAtlantis believe that this will weaken competition in the sector. If Acadian is in control of the entire area from Clare to North Mayo, then they can pick and choose harvesters and determine the conditions of supply. It would also place BioAtlantis and other Irish processors in an unacceptable situation where they would be potentially dependent on their major competitor, Acadian, for their supply.

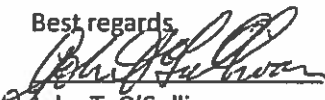
If successful, our application will provide an alternative, viable and sustainable outlet for seaweed harvested in Clew Bay. This will be good for competition and will ensure that local harvester's rights are protected. BioAtlantis will employ existing traditional harvesters from Clew Bay who will continue harvesting as they have done for decades. It also ensures that we, as a company, take responsibility for environmental obligations required to work in this Special Area of Conservation.

BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so. BioAtlantis will operate a collection vessel in the Clew Bay area which will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.



We appreciate your comments and welcome any further suggestions as to potential improvements to the plan. We would like to meet with you to explain our plan further and hope that you will work with us and provide us with harvested seaweed from the shore bordering your lands of inner Clew Bay in the townland of Belclare.

Best regards,

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2<sup>nd</sup> Nov 2015



Reply to: Submission number 28

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. BioAtlantis Ltd. consulted with Inlands Fisheries Ireland (IFI) in December 2013 regarding our plan to hand harvested *A. nodosum* in Clew Bay. We took the concerns expressed by IFI into consideration. For example, in Appendix 4 to our application (Code of Practice), we require that angler's space in Clew Bay is respected by hand harvesters. In our letter to IFI, we provided a comprehensive list of the primary sites of significance to fisheries and sea angling in Clew Bay. Most of these sites will not be subject to harvesting activities. Details of our correspondence to IFI and their response were enclosed with our application.

We would like to deal with each of your points as follows:

**1. Legality of harvesting**

You state that seaweed harvesting may be in breach of SPA and SACs policies and that commercial cutting of seaweed will affect the habitats. However, as you know, hand harvesters in Clew Bay have been harvesting seaweed for generations and for the large part, this has been sustainable. Nevertheless, we are aware of the requirements for working in an SAC. There are a broad range of marine and coastal habitats and species in the SAC which must be protected. BioAtlantis have developed our application on the basis of ensuring that these conservation objectives are met.

**2. Fish by-catch.**

Hand harvesting will be undertaken by local hand harvesters at low tide, as has been done for generations. Harvesting will take place at sustainable levels in order to ensure maintenance of *A. nodosum* canopies, understory species and maintenance of the overall ecosystem. In our application we also state that the important catchment area of Burrishoole will be excluded from harvest activities. Burrishoole is marked as excluded on map BioA\_10-14-001.1 (Appendix 2 of our application).

**3. Junior angling and competitions**

In Section 6 of our harvesting Code of Practice (Appendix 4 to our application), "Working in the vicinity of anglers", we state:

*"There are several sites of relevance to fisheries and sea angling in Clew Bay. Harvesters must work to ensure that angler's space is respected at all times."*

As BioAtlantis will only be working with existing local harvesters, many of them will already be aware of the need to respect the space of anglers. We will remind them to be vigilant.

#### 4. Interaction with other activities

The wide variety of recreational activities on the inner section of Clew Bay that you mention are listed in Appendix 7 of our application. Mitigation measures are in place for Collanmore and Roman Island to ensure that potential in combination effects between harvesting and tourism activities do not occur. Collanmore is particularly busy between May and August while Roman Island has been targeted for development by Mayo County Council. Harvesters will be local and will be aware of issues associated with working in the vicinity of lobster fishermen, oyster beds and the recreation and tourism-related activities mentioned.

#### 5. Income for harvesters

We are committed to working only with local traditional harvesters such as those in the Newport Sea Angling Club. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

We recognise that harvesting is an important supplementary income and we want to ensure that this is sustained. As stated on line 40 on page 3 of our application, our plan will ensure that "harvesters can grow their business as employees or subcontractors of BioAtlantis". BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to support a market leading price to seaweed harvesters. Harvesters may work on a full time or part-time basis.

#### 6. Impact on the shore.

Harvesting will take place at sustainable levels by local harvesters and using traditional techniques. Harvesters will follow a Code of Practice to ensure they cut sufficiently high above the holdfast and do not overharvest or damage an area. The shore will not be cut bare.

#### 7. The sale of Arramara to a foreign competitor

We agree with comments regarding the sale of Arramara Teoranta. Údarás na Gaeltachta sold Arramara to a Canadian company, Acadian Seaplants, who are the biggest global competitor to Irish companies such as BioAtlantis. Acadian under the guise of Arramara have now applied for a licence to harvest seaweed from Loop head, Co. Clare to Belmullet, Co. Mayo. BioAtlantis believe that this will weaken competition in the sector. If Acadian is in control of the entire area from Clare to North Mayo, then they can pick and choose harvesters and determine the conditions of supply. It would also place BioAtlantis and other Irish processors in an unacceptable situation where they would be potentially dependent on their major competitor, Acadian, for their supply.

If successful, our application will provide an alternative, viable and sustainable outlet for seaweed harvested in Clew Bay. This will be good for competition and will ensure that local harvester's rights are protected. BioAtlantis will employ existing traditional harvesters from Clew Bay who will continue harvesting as they have done for decades. It also ensures that we, as a company, take responsibility for environmental obligations required to work in this Special Area of Conservation.

#### **8. Use of public piers**

BioAtlantis will be providing a collection vessel to collect the seaweed from the harvesters. This will save them having to tow the seaweed ashore which is expensive and time consuming. As we will be using just one collection vessel we feel that this will have a minor impact on other activities on the pier.

#### **9. Sustainability of commercial harvesting**

Harvesting will take place in a sustainable manner using sustainable techniques. Mitigation measures are in place to ensure that overharvesting will not occur. The method is outlined in Appendix 4 to our application (Code of Practice for Hand harvesting).

#### **10. Tourism**

Mitigation measures are in place to prevent potential in-combination effects between harvesting and recreational and tourist-related activities (section 3.6.2 of the main application document):

- (a) Harvest will only occur on Collanmore between Sept-April. This prevents any in combination effects associated with increased anthropogenic disturbances which may occur during summer due to increased numbers of tourists on the island.
- (b) Hand harvesters will not work within 50m of bases where equipment or vessels are manually introduced in the water. This ensures that no in combination effects occur.

The plethora of sports and recreation activities considered are outlined in detail in Appendix 7 to the application. The Code of Practice (Appendix 4) also explains to harvesters the importance of preventing interactions with tourism & recreation.

On pg. 126 of Appendix 7 to our main application document, Planned Recreation & Tourism activities have been considered on the basis of Westport Towns and Environs Development Plan 2010-2016, which targets Roman Island for increased marine-based activities and tourism (ref: Mayo County Council 2010). The Mayo County Council 2014 Budget also planned for new marine tourism/leisure infrastructure at Westport Harbour (ref: Hynes P, 2014), thus raising the potential for interaction between hand harvesting and increased tourism-related activities at Westport Quay. Mitigation measures were developed to account for this planned activity. This ensures that harvesting does not interact with Mayo County Council's plans for increased enterprise, business and tourism in this area:

- Hand harvesters will not work at Roman Island or Westport harbour between May and August. This prevents any in combination effects from occurring during peak tourist season.

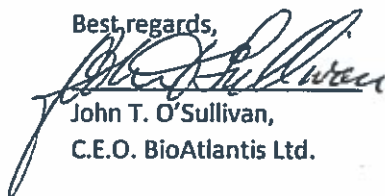
- Hand harvesters will not work within 50m of bases where equipment or vessels are manually introduced in the water. This ensures that no in combination effects occur which could reduce seaweed cover.

#### 11. Fáilte Ireland Initiatives

A range of activities including the award winning Fáilte Ireland developed project, the Great Western Greenway, have been describe on page 9 and 10 to Appendix 7 of our application. Details of water-based recreation activities are also addressed in Appendix 7 and mitigation measures included where needed. In the majority of cases, it is deemed unlikely that harvesting will impact on these activities, particularly those that are predominantly terrestrial based. In addition, the local harvesters already have extensive local knowledge and keen awareness of these requirements for carrying out their work in manner which does not impact on others. The Code or Practice in Appendix 4 to our application also contains a section entitled "Preventing interactions with tourism & recreation", whereby harvesters are made aware of requirements in terms of preventing any in combination effects with tourism, recreation and marine-based activities, particularly as they pertain to interactions with sensitive bird and harbour seal sites.

We hope that this letter addresses all of your concerns. Your comments are very much appreciated.

Best regards,

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2<sup>nd</sup> March 2015

**Reply to: Submission number 29**

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and would be very happy to meet with you also. We envisage that you and others will continue to harvest in the same locations as you have done for generations, in a traditional manner. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

As you may be aware, Údarás na Gaeltachta sold Arramara Teoranta to a Canadian company, called Acadian. Acadian under the guise of Arramara have now applied for a licence to harvest seaweed from Loop head, Co. Clare to Belmullet, Co. Mayo. BioAtlantis believe that this will weaken competition in the sector. If Acadian is in control of the entire area from Clare to North Mayo, then they can pick and choose harvesters and determine the conditions of supply. It would also place BioAtlantis and other Irish processors in an unacceptable situation where they would be potentially dependent on their major competitor, Acadian, for their supply.

If successful, our application will provide an alternative, viable and sustainable outlet for seaweed harvested in Clew Bay. This will be good for competition and will ensure that local harvester's rights are protected. BioAtlantis will employ existing traditional harvesters from Clew Bay who will continue harvesting as they have done for decades. It also ensures that we, as a company, take responsibility for environmental obligations required to work in this Special Area of Conservation.

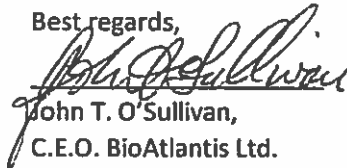
**Collection vessel:**

BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so. BioAtlantis will operate a collection vessel in the Clew Bay area which will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.

Page 1 of 2

We appreciate your comments and welcome any further suggestions as to potential improvements to the plan. We would like to meet with you to explain our plan further and hope that you will work with us and provide us with harvested seaweed from the shore bordering your land of inner Clew Bay along the townland of Ross.

Best regards,

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2<sup>nd</sup> March 2015

Reply to: Submission number 30

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and would be very happy to meet with you also. We envisage that you and others will continue to harvest in the same locations as you have done for generations, in a traditional manner. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

As you may be aware, Údarás na Gaeltachta sold Arramara to a Canadian company, called Acadian. Acadian under the guise of Arramara have now applied for a licence to harvest seaweed from Loop head, Co. Clare to Belmullet, Co. Mayo. BioAtlantis believe that this will weaken competition in the sector. If Acadian is in control of the entire area from Clare to North Mayo, then they can pick and choose harvesters and determine the conditions of supply. It would also place BioAtlantis and other Irish processors in an unacceptable situation where they would be potentially dependent on their major competitor, Acadian, for their supply.

If successful, our application will provide an alternative, viable and sustainable outlet for seaweed harvested in Clew Bay. This will be good for competition and will ensure that local harvester's rights are protected. BioAtlantis will employ existing traditional harvesters from Clew Bay who will continue harvesting as they have done for decades. It also ensures that we, as a company, take responsibility for environmental obligations required to work in this Special Area of Conservation.


**Collection vessel:**

BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so. BioAtlantis will operate a collection vessel in the Clew Bay area which will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.

Page 1 of 2

We appreciate your comments and welcome any further suggestions as to potential improvements to the plan. We would like to meet with you to explain our plan further and hope that you will work with us and provide us with harvested seaweed from the shore bordering your land in inner Clew Bay along the townland of Killadangan.

Best regards

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2<sup>nd</sup> March 2015



Reply to: Submission number 31

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and would be very happy to meet with you also. We envisage that you and others will continue to harvest in the same locations as you have done for generations, in a traditional manner. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

As you may be aware, Údarás na Gaeltachta sold Arramara Teoranta to a Canadian company, called Acadian Seaplants. Acadian under the guise of Arramara have now applied for a licence to harvest seaweed from Loop head, Co. Clare to Belmullet, Co. Mayo. BioAtlantis believe that this will weaken competition in the sector. If Acadian is in control of the entire area from Clare to North Mayo, then they can pick and choose harvesters and determine the conditions of supply. It would also place BioAtlantis and other Irish processors in an unacceptable situation where they would be potentially dependent on their major competitor, Acadian, for their supply.

If successful, our application will provide an alternative, viable and sustainable outlet for seaweed harvested in Clew Bay. This will be good for competition and will ensure that local harvester's rights are protected. BioAtlantis will employ existing traditional harvesters from Clew Bay who will continue harvesting as they have done for decades. It also ensures that we, as a company, take responsibility for environmental obligations required to work in this Special Area of Conservation.

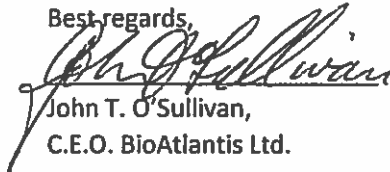
**Collection vessel:**

BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so. BioAtlantis will operate a collection vessel in the Clew Bay area which will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.

Page 1 of 2

We appreciate your comments and welcome any further suggestions as to potential improvements to the plan. We would like to meet with you to explain our plan further and hope that you will work with us and provide us with harvested seaweed from the shore bordering your lands at inner Clew Bay along the townland of Killadangan.

Best regards,

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2<sup>nd</sup> Nov 2015

**Reply to: Submission number 32**

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and would be very happy to meet with you also. We envisage that you and others will continue to harvest in the same locations as you have done for generations, in a traditional manner. In terms of your specific concerns, we wish to reply as follows:

**1. Harvesting in SACs/SPAs**

As you know, hand harvesters in Clew Bay have been harvesting seaweed for generations and for the large part this has proven sustainable. Nevertheless, we are aware of the requirements for working in an SAC. There are a broad range of marine and coastal habitats and species in the SAC which must be protected. BioAtlantis have developed our application on the basis of ensuring that these conservation objectives continue to be met.

**2. Traditional harvesting of seaweed bordering your land**

We are committed to working only with local traditional harvesters. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

We would like to meet with you to explain our plan further and hope that you will work with us and provide us with harvested seaweed from shore bordering your land, as indicated on the map you provided.

**3. Pollution:**

There is a very low risk that pollution will occur due to hand harvesting. On page 77 of our application, under the section "To maintain the large shallow inlets and bays", we determined that:

*"It is highly improbable that a chemical hazard will occur given that no chemicals will be carried on board the boat, except for small quantities of standard cleaning material and fuel oil. Fuel oil is unlikely to leak as boat engines will be regularly maintained".*

#### **4. Harvesting intensity and diversity within the Bay**

BioAtlantis are cognisant of requirements of ensuring that natural biodiversity of marine life are maintained throughout the bay, particularly with respect to requirements for protected coastal and marine habitats and species which are protected under EU law. In addition, hand harvesting will be undertaken in a sustainable manner. Mitigation measures are in place to ensure that only traditional cutting techniques are used, *A. nodosum* is cut high above the holdfast and overharvesting does not occur.

#### **5. Traffic levels and use of piers**

Hand harvesting will be undertaken by local hand harvesters. BioAtlantis will introduce just one collection vessel which will be used to pick up the seaweed from the harvesters, thus preventing a significant increase in traffic and usage of piers.

#### **6. Sustainability of commercial harvesting**

Harvesting will take place in a sustainable manner using sustainable techniques. Mitigation measures are in place to ensure that overharvesting will not occur. Coastal erosion is highly unlikely. The method is outlined in Appendix 4 to our application (Code of Practice for Hand harvesting).

#### **7. Tourism**

Mitigation measures are in place to prevent potential in-combination effects between harvesting and recreational and tourist-related activities (section 3.6.2 of the main application document):

- (a) Harvest will only occur on Collanmore between Sept-April. This prevents any in combination effects associated with increased anthropogenic disturbances which may occur during summer due to increased numbers of tourists on the island.
- (b) Hand harvesters will not work within 50m of bases where equipment or vessels are manually introduced in the water. This ensures that no in combination effects occur.

The plethora of sports and recreation activities considered are outlined in detail in Appendix 7 to the application. The Code of Practice (Appendix 4) also explains to harvesters the importance of preventing interactions with tourism & recreation.

On pg. 126 of Appendix 7 to our main application document, Planned Recreation & Tourism activities have been considered on the basis of Westport Towns and Environs Development Plan 2010-2016, which targets Roman Island for increased marine-based activities and tourism (ref: Mayo County Council 2010). The Mayo County Council 2014 Budget also planned for new marine tourism/leisure infrastructure at Westport Harbour (ref: Hynes P, 2014), thus raising the potential for interaction between hand harvesting and increased tourism-related activities at Westport Quay. Mitigation measures were developed to account for this planned activity. This ensures that harvesting does not interact with Mayo County Council's plans for increased enterprise, business and tourism in this area:

- Hand harvesters will not work at Roman Island or Westport harbour between May and August. This prevents any in combination effects from occurring during peak tourist season.

- Hand harvesters will not work within 50m of bases where equipment or vessels are manually introduced in the water. This ensures that no in combination effects occur which could reduce seaweed cover.

#### 8. Fáilte Ireland Initiatives

A range of activities including the award winning Fáilte Ireland developed project, the Great Western Greenway, have been describe on page 9 and 10 to Appendix 7 to our application. Details of water-based recreation activities are also addressed in Appendix 7 and mitigation measures included where needed. In the majority of cases, it is deemed unlikely that harvesting will impact on these activities, particularly those that are predominantly terrestrial based. In addition, the local harvesters already have extensive local knowledge and keen awareness of these requirements for carrying out their work in manner which does not impact on others. The Code or Practice in Appendix 4 to our application also contains a section entitled "Preventing interactions with tourism & recreation", whereby harvesters are made aware of requirements in terms of preventing any in combination effects with tourism and recreation marine based activities, particularly as they pertain to interactions with sensitive bird and harbour seal sites.

#### 9. Income for harvesters

We are committed to working only with local traditional harvesters. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

We recognise that harvesting is an important supplementary income and we want to ensure that this is sustained. As stated on line 40 on page 3 of our application, our plan will ensure that "harvesters can grow their business as employees or subcontractors of BioAtlantis". BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so. We will ensure that the local economy benefits from our presence in Clew Bay.

**Collection vessel:** BioAtlantis will operate a collection vessel in the Clew Bay area which will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.

**10. Harvesting for personal use**

As stated in our application and in our press release on the Mayo News, low scale harvesting for personal use (<0.5 tonnes) will be unaffected by this application.

**11. Periwinkle harvesting**

BioAtlantis are aware of the importance of periwinkle species within the intertidal zone of Clew Bay. On page 124 and 125 of our application, we provide a list of mitigation measures to reduce potential impacts on periwinkles numbers which could emerge due to harvesting. This requires that (a) hand harvesters cut high up on the canopy (many of them already do so), (b) harvesting takes place at low tide when periwinkles are generally less active and resting at the base of the *A. nodosum* canopy and (c) inadvertent co-removal of periwinkles i.e. 'by-catch' will be identified and returned to the water. Other mitigation measures are also listed. These measures ensure the ecological niche of periwinkles is maintained and that overharvesting does not occur. Our application is designed to reduce impacts on these species and thus, will not negatively impact on those who wish to harvest periwinkles.

**12. Scale of commercial cutting**

Harvesting will only occur at levels that are sustainable. We have applied to harvest a maximum of 12,900 sustainable tonnes, a figure slightly less than that previously reported by Hession et al., (1998). Each site will be assessed prior to harvesting taking place. Harvesting levels will be recorded and mitigation measures have been designed to ensure that overharvesting does not occur. Moreover, harvesting will be undertaken by local harvesters with experience in how to cut sustainably.

**13. Angling, snorkelling, canoeing and swimming**

Harvesters will be local and will be aware of issues associated with working in the vicinity of anglers and the recreation and tourism and recreation-related activities mentioned. The activities you mention are listed in Appendix 7 of our application. Mitigation measures are in place for Collanmore and Roman Island to ensure that potential in combination effects between harvesting and tourism activities do not occur. Collanmore is particularly relevant busy between May and August while Roman Island has been targeted for development by Mayo County Council. In our Code of Practice, we also require that "Harvesters must work to ensure that angler's space is respected at all times", as requested during consultations with Inlands /Fisheries Ireland on 20<sup>th</sup> December 2013. We also include a mitigation measure which requires that hand harvesters will not work within 50m of bases where equipment or vessels such as kayaks are manually introduced in the water.

**14. Value of the resource**

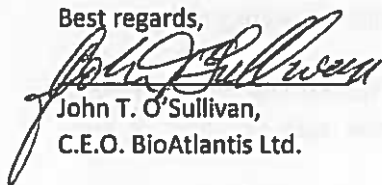
Harvesting is a key supplementary income to local harvesters and we want to ensure that this is sustained. As stated on line 40 on page 3 of our application, we state that "harvesters can grow their business as employees or subcontractors of BioAtlantis". As stated above, BioAtlantis will make a commitment to pay a market leading price for seaweed and are confident that our high value product range and premium customers will allow us to do so.

**15. Monitoring, Managing and traceability,**

BioAtlantis have developed a system which will ensure that quantities of biomass are recorded on a site by site basis, methods will be monitored and the system will have full traceability.

We hope that this letter addresses all of your concerns. Your comments are very much appreciated.

Best regards,



John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date:

20th March 2015

Reply to: Submission number 33

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and would be very happy to meet with you also. We envisage that you and others will continue to harvest in the same locations as you have done for generations, in a traditional manner. In terms of your specific concerns, we wish to reply as follows:

**1. Traditional harvesting of seaweed bordering your land**

We are committed to working only with local traditional harvesters. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

We would like to meet with you to explain our plan further and hope that you will work with us and provide us with harvested seaweed from the shore bordering your land.

**2. Sustainable practices by local harvesters**

As outlined page 37 & 38 of our application, we explain that we favour the traditional method with a sickle/knife "at low tide which provides harvesters with full view of the cutting process, taking care not to disturb the substrate, not harvest too low or damage holdfast". The traditional method forms the basis of our application as it is the least invasive. Other companies want to move towards modern methods, which may not be environmentally friendly or sustainable and may cause damage to the *A. nodosum* holdfast. BioAtlantis in contrast, want to ensure that the traditional method continues, and is performed by local people in Clew Bay. This is stated on page 122 of our application under section: "traditional and casual harvesting":

*"This will ensure that traditional hand harvest activities are incorporated seamlessly into a fully licensed system, thus protecting traditional methods, the harvesters themselves and the environment, in tandem"*

We commend harvesters such as you for liaising with NPWS, Dept. of Environment and others. BioAtlantis aim to take care of the regulation and administration aspects of harvesting to allow traditional harvesters to focus on harvesting.



### 3. Jobs and income in Clew Bay.

As we state above, BioAtlantis will only work with local, traditional hand harvesters, landowners and those with fishing interests in Clew Bay. Our presence will provide benefit the local economy both in the short and long term by ensuring that regulations and administrative issues associated with harvesting are dealt with effectively. This is crucial to ensuring that seaweed harvesting continues to be viable, sustainable and profitable for years to come. We recognise that harvesting is an important supplementary income and we want to ensure that this is sustained and that families who make an income continue to do. Harvesters may work on a full time or part-time basis. As stated in point 1 above, we hope that you and other local harvesters will provide us with harvested seaweed from the shore bordering your lands. Benefits from BioAtlantis making value-added products from Clew Bay seaweed will be realised in the form of prices that are attractive to hand harvesters. BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so.

**Collection vessel:** BioAtlantis will operate a collection vessel in the Clew Bay area which will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.

### 4. Sustainability and management of the resource

Harvesting will only occur at levels that are sustainable. We detailed this in our application and anticipate that this system can fit in seamlessly into current practices in Clew Bay. We will also ensure that quantities of biomass are recorded and monitored and that the system will have full traceability.

### 5. Track record of BioAtlantis.

BioAtlantis is registered by the Department of Agriculture in Ireland for the manufacture and sale of feed material. BioAtlantis are accredited as having 'Good Manufacturing Practices', by GMP+ International B.V., one of the highest feed safety standards in the world, requiring high standards in traceability, quality and safety. BioAtlantis have 3 patents filed on the benefits arising from seaweed extracts and have over 20 peer reviewed papers on the subject.

### 6. Why BioAtlantis seek a licence.

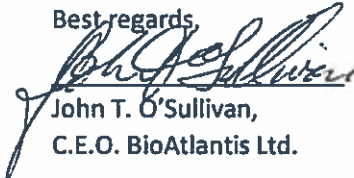
If BioAtlantis obtain a licence for Clew Bay, it will prevent Acadian/Arramara from gaining rights to the entire shoreline from Clare to North Mayo. Should Acadian/Arramara gain such a licence, then this will give rise to a monopoly over most of the *A. nodosum* in Ireland. This is not in the best interest of traditional Clew Bay harvesters or indigenous Irish companies such as BioAtlantis. BioAtlantis want to improve the terms and conditions for local harvesters. A licence for BioAtlantis will allow harvesters and authorities to compare the price of raw material terms and

conditions versus harvesters in other parts of the country. This is preferable to a scenario whereby Acadian/Arramara alone control the *A. nodosum* resource from Clare to north Mayo.

BioAtlantis cannot rely on our largest competitor Acadian to supply us with our raw material. Acadian have a history of unethical practices against Irish seaweed companies and have labelled Irish seaweed products as inferior. Proof of Acadian's false advertisements was provided to the Oireachtas on the 8<sup>th</sup> of July.

We hope that this letter addresses your concerns. We appreciate your comments and we would like to meet with you to explain our plan further. We hope that you will work with us and provide us with harvested seaweed from the shore bordering your land.

Best regards



John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2nd March 2015

Reply to: Submission number 34

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and would be very happy to meet with you also. We envisage that you and others will continue to harvest in the same locations as you have done for generations, in a traditional manner. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

Our presence will provide benefits to the local economy both in the short and long term by ensuring that regulations and administrative issues associated with harvesting are dealt with effectively. This is crucial to ensuring that seaweed harvesting continues to be viable, sustainable and profitable for years to come. We recognise that harvesting is an important supplementary income and we want to ensure that this is sustained and that families who make an income continue to do. Benefits from BioAtlantis making value-added products from Clew Bay seaweed will be realised in the form of prices that are attractive to hand harvesters. BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so. Harvesters may work on a full time or part-time basis.

**Collection vessel:** BioAtlantis will operate a collection vessel in the Clew Bay area which will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment.

Importantly, BioAtlantis is registered by the Department of Agriculture in Ireland for the manufacture and sale of feed material. BioAtlantis are accredited as having 'Good Manufacturing Practices', by GMP+ International B.V., one of the highest feed safety standards in the world, requiring high standards in traceability, quality and safety. BioAtlantis have 3 patents filed on the benefits arising from seaweed extracts and have over 20 peer reviewed papers on the subject.

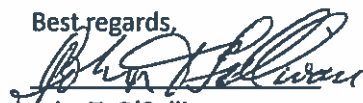
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As you may be aware, Údarás na Gaeltachta sold Arramara Teoranta to a Canadian company, called Acadian Seaplants. Acadian under the guise of Arramara have now applied for a licence to harvest seaweed from Loop head, Co. Clare to Belmullet, Co. Mayo. BioAtlantis believe that this will weaken competition in the sector. If Acadian is in control of the entire area from Clare to North Mayo, then they can pick and choose harvesters and determine the conditions of supply. It would also place BioAtlantis and other Irish processors in an unacceptable situation where they would be potentially dependent on their major competitor, Acadian, for their supply.

If successful, our application will provide an alternative, viable and sustainable outlet for seaweed harvested in Clew Bay. This will be good for competition and will ensure that local harvester's rights are protected. BioAtlantis will employ existing traditional harvesters from Clew Bay who will continue harvesting as they have done for decades. It also ensures that we, as a company, take responsibility for environmental obligations required to work in this Special Area of Conservation.

We appreciate your comments and welcome any further suggestions as to potential improvements to the plan. We would like to meet with you to explain our plan further and hope that you will work with us and provide us with harvested seaweed from the shore bordering your land.

Best regards,

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2<sup>nd</sup> March 2015

Reply to: Submission number 35

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. We have already met with approximately 10 local harvesters and wish to meet other harvesters also. We envisage that traditional hand harvesters in Clew Bay will continue to harvest in the same locations as they have done for generations, in a traditional manner. We stated this in our application, in the Oireachtas meeting on seaweed harvesting and in the Mayo News:

- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with the best of local harvesters".
- **Mayo News, 16<sup>th</sup> December, 2014 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

We would like to meet with you to explain our plan further and hope that you will work with us and provide us with harvested seaweed from the shore bordering your lands.

#### 1. Aquaculture

Our application will not have any impact on your current aquaculture licence T10/170 or your licence application, T10/308. BioAtlantis assessed both planned and existing aquaculture licence applications, in order to assess the potential for overlap between harvesting and aquaculture activities. BioAtlantis deemed it necessary to assess the distribution of these sites within the complex. Literature and data from the Marine Institute, Sea Fisheries Protection Authority and others was used. Page 28 of Appendix 7 to our application lists a number of oyster culture sites. Map BioA\_10\_14\_001.8 in Appendix 2 provides a more detailed map of existing aquaculture sites in the complex, which is based on licence application data obtained by the Marine Institute. This also includes planned operations. Overall, the potential for overlap between *A. nodosum* hand harvesting and intertidal culture was deemed unlikely. According to the Marine Institute (2014):

*"The likely overlap between these activities [harvest of seaweed on intertidal reef communities] and intertidal shellfish culture is considered small as the (reef) habitat is not considered suitable for shellfish culture".*

It is unlikely that harvesting will impact on oyster stocks in Clew Bay. From an environmental and conservation perspective however, the potential for in-combination effects was assessed and it was determined that harvest activities could potentially interact with and exacerbate existing risks potentially associated with aquaculture sites and their proximity in relation to (a) harbour

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seal sites and (b) mudflats and sandflats (pg. 27, 28 of Appendix 7 to application). The risk of such interactions is considered low (Marine Institute, 2014). Nevertheless, two mitigation measures were developed to prevent in combination impacts between harvesting and aquaculture sites:

- (a) Code of practice for seasonal avoidance of sensitive harbour seal sites must be adhered to for all haul out sites.
- (b) Code of practice for environmentally safe navigation must be followed to ensure no in-combination effects which would damage mudflats and sandflats.

Interactions with planned operations was also incorporated into these mitigations measures, to ensure that hand harvesting continues in light of proposed aquaculture sites being approved.

BioAtlantis have developed a Code of Practice for sustainable hand harvesting in Clew Bay, which includes a section on "working in the vicinity of aquaculture sites". BioAtlantis are aware of the importance role played by the Clew Bay Oyster Co-operative Society Ltd. and The Clew Bay CLAMS Group (CLAMS), in the Clew Bay SAC. We are also aware of the efforts by these groups to adhere to a Code of Practice to ensure their activities are sustainable. We look forward to liaising with these groups in the future to ensure that we work in tandem to protect the SAC, in particular with respect to harbour seals and protected bird species.

## 2. Consultations and transparency

- Our entire application was uploaded to the Department of the Environment's website in February 2014. These documents have been available to view for over a year.
- BioAtlantis attended an Oireachtas committee meet in July 8<sup>th</sup> whereby we explained our licence application for Clew Bay.
- BioAtlantis met with a group of Clew Bay harvesters in Newport on 28/07/2014, to explain our plans.
- We published an advertorial in the Mayo News 16<sup>th</sup> December 2014 (pg. 24), where we outlined some of the pertinent issues relating to the plan. We would like to have a follow up meeting with you and other harvesters shortly to explain the plan further and take your suggestions on board.

## 3. Arramara/Acadian

As you may be aware, Udaras na Gaeltachta sold Arramara to a Canadian multinational, called Acadian. Acadian under the guise of Arramara have now applied for a licence to harvest seaweed from Loop head, Co. Clare to Belmullet, Co. Mayo. BioAtlantis believe that this will weaken competition in the sector. If Acadian is in control of the entire area from Clare to North Mayo, then they can pick and choose harvesters and determine the conditions of supply. It would also place BioAtlantis and other Irish processors in an unacceptable situation where they would be potentially dependent on their major competitor, Acadian, for their supply.

If successful, our application will provide an alternative, viable and sustainable outlet for seaweed harvested in Clew Bay. This will be good for competition and will ensure that local harvester's rights are protected. BioAtlantis will employ existing traditional harvesters from Clew Bay who will continue harvesting as they have done for decades. It also ensures that we, as a company, take responsibility for environmental obligations required to work in this Special Area of Conservation.

#### 4. Sustainable practices

As outlined page 37 & 38 of our application, we explain that we favour the traditional method with a sickle/knife "at low tide which provides harvesters with full view of the cutting process, taking care not to disturb the substrate, not harvest too low or damage holdfast". The traditional method forms the basis of our application as it is the least invasive. Other companies want to move towards so-called modern methods which may not be environmentally friendly or sustainable. BioAtlantis in contrast, want to ensure that the traditional method continues, and is performed by local people in Clew Bay. This is stated on page 122 of our application under section: "traditional and casual harvesting":

*"This will ensure that traditional hand harvest activities are incorporated seamlessly into a fully licensed system, thus protecting traditional methods, the harvesters themselves and the environment, in tandem"*

BioAtlantis are cognisant of the fact the hand harvesters have an in depth knowledge of local issues and sustainable methods of hand harvesting. In our application we state that we will take an adaptive approach and work to include local knowledge as to best practice when approaching sites and other issues as they emerge. This will require time spent with harvesters to establish which sites are of relevance to each individual. We believe the best way to ensuring sustainability is to use the best of industry in conjunction with the best of local harvesters. BioAtlantis aim to take care of the regulation and administration aspects of harvesting to allow traditional harvesters to focus on harvesting.

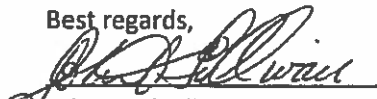
#### 5. BioAtlantis into the future

Our aim is to be the global brand leader in biostimulant and nutraceutical technology. The company have a long term vision and have no intention in selling the business.

**Collection vessel:** BioAtlantis will operate a collection vessel in the Clew Bay area which will be under the control of the Resource Manager (a Clew Bay local). The advantage of this is that it will save the harvesters time and money, as they otherwise have to tow seaweed ashore. It will also allow harvesters to cut smaller amounts as the seaweed will be collected daily, thus avoiding the danger of losing their harvest due to a change in weather conditions. It will also allow for instant weighing and fast payment. BioAtlantis will also make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to support a market leading price to seaweed harvesters.

We hope that this letter addresses all of your concerns. We appreciate your comments and welcome any further suggestions as to potential improvements to the plan.

Best regards,

  
John T. O'Sullivan,  
C.E.O. BioAtlantis Ltd.

Date: 2nd Nov 2015