



**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, R1-R20**  
**(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 1

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:

- **Points 1 & 2: Traditional harvesting**

We are committed to local traditional harvesters. On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way". Our press release on pg. 24 of the Mayo News (16<sup>th</sup> December) states that "local hand harvesters can continue harvesting in a traditional way". In the Oireachtas on 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".

- **Point 3: Income**

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.

- **Point 4: Harvesting techniques and tradition**

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. Other companies want to move towards so-called modern methods, which may cause damage to or even remove *A. nodosum* holdfast material. BioAtlantis in contrast want to ensure that the sustainable traditional method continues.

- **Point 5: Income & seasonality of work.**

See point 3 above. We will work with harvesters either part-time or full-time, according to their wishes.

- **Point 6: Supply and demand & access to raw material**

Údarás na Gaeltachta sold Arramara Teoranta to a Canadian company, Acadian Seaplants, who are the largest foreign competitor of Irish companies. This sale now threatens the supply of raw

material to Irish companies such as BioAtlantis.

Acadian have now applied under the guise of Arramara, for a licence to harvest seaweed from Clare to North 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.

- **Point 7: Supply of seaweed**

Almost 50% of the *A. nodosum* resource along the west coast is found in Galway. We believe that this is sufficient to ensure Arramara's supply.

- **Point 8: Costs incurred by BioAtlantis**

Investment in Clew Bay: BioAtlantis will incur costs of €500K+ as follows:

- Licence application cost to date: €100k
- Site-by-site resource measurement: €50k
- A collection boat will be provided by BioAtlantis which will allow harvesters to focus on harvesting and avoid having to tow seaweed ashore. This will include a crane and a weighing system on the boat together with a traceability system so people can cut daily quantities, which will be collected daily, weighed and traced to the harvest site. Text message or email will be sent via smart phone to confirm payment and allow for quick processing of payment  
Cost: €350k +
- We will employ a local skipper as Resource Manager to operate the vessel. Cost: €50k per annum.

- **Point 9: Sustainable harvesting and island visitation**

We agree with your approach to harvesting and leaving 10 inches of material behind post harvest. In our application we propose that this system remain, which requires that *A. nodosum* is cut between 8-12 inches above the holdfast. Regarding our decision to visit Collanmore, we did so as the study by Hession et al., (1998) indicates that the island contains high levels of *A. nodosum*. Other sites were also visited to cross-check with finding from Hession et al., (1998).

- **Point 10: Sustainable nature of harvesting in Clew Bay.**

Traditional hand harvesters have taken care of the resource for generations which is why we want this to continue. However, there are risks to the SAC associated with increases in large-scale unregulated activities.

- **Point 11: Harvesting to remain in the communities.**

As stated in our plan and press release, we will be working with local, traditional harvesters and farmers and land owners who have an interest in seaweed harvesting. We will also be employing a Resource Manager (from the Clew Bay area) who will operate the collection vessel and pick up the harvested seaweed from the harvesters when they complete their work, rather than requiring them to haul the seaweed ashore.

- **Point 12: Employment**

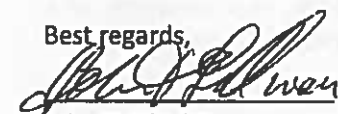
We will employ those who have traditional harvesting backgrounds in Clew Bay, and by doing so help preserve existing employment. The number of people employed in harvesting has varied from time to time depending on demand. BioAtlantis is a growing company and will require a regular supply of seaweed. Therefore, this ensures that jobs can be either full-time or part-time.

- **Collection Vessel:**

BioAtlantis will operate a collection vessel in the Clew Bay area, 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 also like to meet with you to discuss further.

Best regards,

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

Date:

21st March 2015

Reply to: Submission number 2

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 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 and 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.

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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 adjoining parts of inner Clew Bay along the townland of Kilmeena.

Best regards,

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

Date: 24 March 2015



Reply to: Submission number 3

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".

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:**

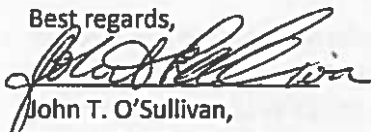
BioAtlantis will make a commitment to pay a market leading price for seaweed. We are confident that our high value product range and premium customers will allow us to do so. BioAtlantis will also operate a collection vessel in the Clew Bay area which will be under the control of the Resource Manager (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.

Best regards,



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

Date: 2nd March 2015

Reply to: Submission number 4

Dear Sir/Madam,

We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: F56269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. We appreciate your constructive comments and will address each one as follows:

**1. Recreational sailing at Schoolhouse Bay and surrounding area.**

We are aware that the Collanmore and Rosmoney and the nearby Schoolhouse Bay area are busy during summer months. In our application, we have considered a variety of sailing activities, including dinghy sailing and keel boat sailing (pages 16, 17 & 18 of Appendix 7 to our application) and have mitigated accordingly from an environmental perspective. This includes the following:

- 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.

As you quite rightly point out however, we had not made specific reference to Mayo Sailing Club (MSC) in the Rosmoney area, Schoolhouse Bay and potential requirements of sailors during recreation, racing, etc. It is worth noting that BioAtlantis will be employing existing traditional harvesters from Clew Bay, many of whom will be aware of the presence of sailing activities in the general area, particularly in summer months. Taking your comments on board, BioAtlantis will ensure that each of the harvesters and operators of boats are aware of their requirements to:

- Keep well clear of boats during racing, etc.
- Observe "power gives way to sail" conventions when appropriate.

**2. Potential for increased traffic at Schoolhouse Bay.**

In our application we state that harvest will only occur on Collanmore between Sept-April. This ensures that traffic in this area will not increase significantly during summer months when sailing and related activities are at their peak. We will also ensure that Schoolhouse Bay, located to the east of Collanmore will only be subject to hand harvest between Sept-April. We will also remind harvesters to keep well clear of boats during racing and to observe "power gives way to sail" conventions as required.

**3. Employment of local seaweed cutters:**

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 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 (pg. 24):** We state that "local hand harvesters can continue harvesting in a traditional way".

**4. Livelihoods of existing and future seaweed cutters**

As stated above, we will only work with local, existing harvesters both in the short and long term. This will help secure the sustainability of harvesting for the next ten years and for future generations. We state in our press release that "harvesters can grow their business as employees or subcontractors of BioAtlantis".

**5. Periwinkle species:**

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. 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. The mitigation measures provided also ensure that the ecological niche of periwinkles is maintained and that overharvesting does not occur. We are also aware that hand gathering of periwinkle occurs within the intertidal zone of Clew Bay. Our application is designed to reduce impacts on this important species and this will not negatively impact on those who wish to harvest periwinkles.

**6. Small-scale seaweed harvesting:**

As stated on page 4 of our application, "Private, small-scale harvest for personal use [<0.5 tonnes] will not be affected". This was also stated in the Mayo news press release on 16<sup>th</sup> December, 2014 (pg. 24).

**7. Noise pollution due to presence of trucks:**

Noise pollution is unlikely. Harvested seaweed will be collected by a single collection vessel in Clew Bay and transported via existing piers.

**8. Loss of amenity:**


Seaweed harvesting will take place at sustainable levels and will not negatively affect Rosmindle pool. We will not collect seaweed with trucks at this site.

**9. Mistake in BioA\_10-4-001.1 and -1.8 maps**

As you quite rightly point out, there is no road linking Rosmindle and Roscahill in zone CZ3.3. Our maps are based on the latest versions provided by Ordnance Survey Ireland. We will inform Ordnance Survey Ireland of this potential inaccuracy. However, this does not affect our current application.

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

**Reply to: Submission number 5**

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 appreciate your comments and will address each one as follows:

**Draft net fishing:**

Our application will not affect the rights of salmon draft licence holders to cut away the seaweed in the adjacent areas to allow for hauling during the fishing season. In our application, we state that low-scale harvesting for personal use (<0.5 tonnes) will not be affected by our application. We are also aware of the importance of local knowledge in this regard. On page 33 of our application, we state that we will have an "Adaptive Management" approach. This will ensure continual improvements of the plan into the future and we will work to "include local knowledge as to best practice when approaching sites" and local knowledge as to other issues and needs as they arise, such as salmon draft net fishing in your case. As we will employ existing local harvesters, they will be aware of these issues.

**Traditional harvesters:**

We would like to state that BioAtlantis, as an indigenous Irish company, will work 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 and our recent press release in the Mayo News. We are cognisant of the fact that local harvesters have an in depth knowledge of the Complex and they will continue to liaise with the local fishing community on issues such as you describe in your letter.

**Overharvesting and accountability**

You are quite right to be concerned about overharvesting. This is not in the best interest of hand harvesters or BioAtlantis. We are building a long term business and environmental compliance will be a key part of this process. As such, the application has been designed with sustainability in mind. BioAtlantis will be responsible for ensuring that activities do not impact on the conservation objectives of Clew Bay SAC, as required by the EU.

**Reasons for this application:**

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.

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 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,

Date: \_\_\_\_\_

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

Reply to: Submission number 6

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

We are committed to local traditional harvesters. On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way". Our press release on pg. 24 of the Mayo News (16<sup>th</sup> December, 2014) we state that "local hand harvesters can continue harvesting in a traditional way". In the Oireachtas on 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".

#### 2. Oyster Fishery and Aquaculture

In order to assess the potential for overlap between harvesting and aquaculture activities, BioAtlantis assessed the distribution of these sites within the complex. Literature and data from the Marine Institute 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. 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 seal sites and (b) mudflats and sandflats (pg. 27, 28 of Appendix 7 to our application). The risk of such interactions is considered low (Marine Institute, 2014). Nevertheless, two mitigation



measures were developed in our application to prevent in combination impacts between harvesting and aquaculture with protected marine and coastal habitats and species:

- (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.

### 3. Pollution and disruptive activities:

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. Maps:

Map number BioA\_10\_14\_001.8 in Appendix 2 was constructed based on data from the Marine Institute report (2014). While a number of applications were not included in the map in the north of the complex, BioAtlantis is aware of these applications and will ensure that potential in-combination effects which could give rise to impacts on protected species and habitats in the SAC, will not occur. In the south of the Complex, 7 aquaculture sites are indicated. There are at least 4 sites present to the east off the coast from Murrisk pier. These sites are in close proximity and denoted by a single 'X' on our map. As stated in our application, BioAtlantis will implement an Adaptive Management Approach to ensure continual improvements to the harvesting plan during its implementation and ensuring its effectiveness into the future. This includes continual updating of maps and mitigation measures in the event of additional aquaculture sites emerging in Clew Bay.

### 5. Traditional harvesting rights

See point 1 above.

**5a. 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. 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. The mitigation measures provided also ensure the ecological niche of periwinkles is maintained and that overharvesting of seaweed does not occur. We are also aware that hand gathering of periwinkle occurs within the intertidal zone of Clew Bay. Our application is designed to reduce impacts on this species and thus, will not negatively impact on those who wish to harvest periwinkles.

**5b. Working with the existing shore infrastructure**

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. 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. Existing piers will be used in order to prevent any potential negative impacts in coastal areas and habitats. The introduction of an additional boat in Clew Bay by BioAtlantis is unlikely to significantly impact on existing infrastructure.

**6. Water-sport ventures**

Mitigation measures have been designed to prevent potential in-combination effects between harvesting and recreational and tourist-related activities, including kayaking, snorkelling, diving, sea fishing and related activities (see section 3.6.2 of the main text of our 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 our application. The Code of Practice (Appendix 4) also explains to harvesters the importance of preventing interactions with tourism & recreation. This will be adapted as required into the future.

**7. Importance of Clew Bay SAC as an ecosystem of international importance.**

BioAtlantis have assessed the requirements by NPWS and the EU to ensure that conservation objectives for marine and coastal habitats and species in Clew Bay are not impacted by hand harvesting. A range of mitigation measures have been developed along with a harvesting Code of Practice which is informed by best scientific knowledge. A Natura Impact Statement has also been submitted.

**8 (a) Impact on Tourism in Westport**

As outlined in Appendix 7 and on page 126 of 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 (b) Fáilte Ireland Initiatives**

A range of activities and initiatives including the award winning Fáilte Ireland developed project, the Great Western Greenway, have been described on page 9 and 10 to Appendix 7 to our application. It is highly unlikely that harvesting will impact on these activities.

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

**Cited References:**

**Browne, R., Deegan, B., O'Carroll, T., Norman, M. and Ó'Cinnéide, M., 2007.** Status of Irish Aquaculture, 2006. Marine Institute/Bord Iascaigh Mhara/Taighde Mara Teo: 113pp

**Faite Ireland (2012).** Get Out There Clew Bay Map. Published 08/02/2012. Web: <http://www.mayo.ie/dnn/AboutMayo/AllThingsMayoWiki/ClewBayActivities.aspx#.VBHYiSDqM-> (Accessed 11/09/2014)

**Marine Institute (2014).** Report supporting Appropriate Assessment of Aquaculture and Risk Assessment of Fisheries in Clew Bay Complex SAC (Site Code: 1482). Web: <https://www.agriculture.gov.ie/media/ClewBaySACAA290714.pdf>., accessed: 15/09/2014

**Hynes, P. (2014).** Adopted Annual Budget for Mayo County Council. Web: [http://www.mayococo.ie/lgdocuments/adopted\\_annual\\_budget\\_2014.pdf](http://www.mayococo.ie/lgdocuments/adopted_annual_budget_2014.pdf) . Accessed: 16/09/2014.

**Mayo County Council (2010).** Westport Towns and Environs Development Plan 2010-2016 (incorporating variation 1, 2 and 3). In order to assess the potential for in-combination effects of hand harvesting with existing and planned aquaculture and fisheries activities operations, the following literature was consulted:

**Mayo County Council (2013a).** Natura Impact Report in support of the Habitats Directive Assessment Of the Draft Mayo County Development Plan 2014 – 2020. Web: <http://www.mayococo.ie/en/Planning/MayoCountyDevelopmentPlan2014-2020/Document4,24889,en.pdf> . Accessed: 16/09/2014

Reply to: Submission number 7

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 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 lands.

**2. 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.

**3a. Disturbance of the tranquil environment on the foreshore**

Hand harvesting will take place in a traditional manner and to levels which are sustainable. If you are a harvester in the area surrounding, we would like to talk to you with the view to you supplying us with harvested seaweed in your vicinity.

**3b. Simple food chains (seaweed-limpet-crab):**

Seaweed, limpets and crab food chains will not be significantly affected. We recognised this as an important food chain in our application and ensured appropriate mitigation measures were put in place to protect this relationship. Limpets will be protected as the traditional method for hand harvesting will be minimally invasive and is designed to be sustainable (pg. 97 of our application). Also, Animalia by-catch such as crabs identified on the collection vessel supplied by BioAtlantis, will be returned to the water (pg. 99 of our application).

**3c. Shoreline and pelagic birds which overwinter on the intertidal zone**

BioAtlantis also wish to ensure that protected wintering and breeding bird species are unaffected. We have liaised with Birdwatch Ireland and NPWS to determine the sites most important to these species. We have control measures in place to ensure that harvest activities do not occur during sensitive times of year at sites important during breeding and wintering periods (see Appendix 4 to our application). Many local harvesters are already aware of these sites but we will remind them of their requirements to avoid these sites at inappropriate times.

**4. Foreshore used for recreation and related activities**

Harvesting will take place in a traditional manner by local harvesters and will not lead to disturbance of your peace. Again, we would like to meet with you and hope that you can provide us with harvested seaweed from the shore adjacent to your land.

**5a. Private collection of seaweed.**

As stated on page 4 of our application, "Private, small-scale harvest for personal use (<0.5 tonnes) will not be affected". This was also stated in the Mayo News press release on 16<sup>th</sup> December, 2014 (pg. 24).

**5b. Ecosystem and ecotourism**

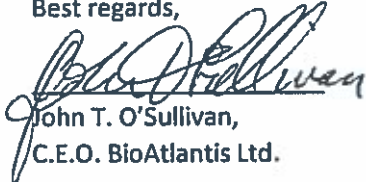
In appendix 7 to our application we have listed a range of eco-tourism type activities and have worked to ensure that harvesting is sustainable from an environmental point of view, and is non-disruptive to other activities. To achieve this, we wish to work with local harvesters who will work sustainably to supply us with the harvested seaweed. We are also aware of the Wild Atlantic Way and the award winning Fáilte Ireland developed project, the Great Western Greenway. We have included this on page 9 and 10 to Appendix 7 to our application. We want to work to ensure that traditional harvesting will not impact on these activities.

**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. 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 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 March 2015



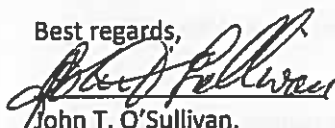
Reply to: Submission number 8

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 more harvesters with the view to supplying us. We envisage that local harvesters will continue to work in the same locations as they have done for generations, in a traditional manner. As regards environmental accountability, our application has been designed to ensure that Marine and Coastal habitats and species in Clew Bay are adequately protected and that hand harvesting is carried out in a sustainable manner.

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 April 2015

Reply to: Submission number 9

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 has been 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:

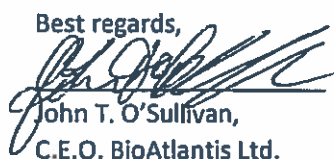
- **Application:** On line 38 of page 3 of our application, we state that harvesting will continue "in a traditional way".
- **Oireachtas, 8<sup>th</sup> July 2014:** We stated that the best way forward to ensuring sustainability of hand harvesting is "to use the best of industry in conjunction with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

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 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> March 2015

Page 1 of 1

Reply to: Submission number 10

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 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 (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, as indicated on the map you provided.

**2. 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.

**3. Enjoyment of the foreshore**

Hand harvesting will take place in a traditional manner and to levels which are sustainable, and unlikely to lead to disturbance of peace and enjoyment in the area. If you are a harvester in the area surrounding, we would like to talk to you with the view to you supplying us with harvested seaweed in your vicinity.

**4. Access to the foreshore**

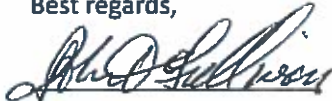
In our application, we propose that access to the foreshore will be via boat by local harvesters or via existing routes.

**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. 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 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: 2<sup>nd</sup> March 2015

**Reply to: Submission number 11**

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 seaweed bordering your land on Clynish island.**

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 lands, as indicated on the map you provided.

**2. Income & livelihood**

We recognise that harvesting is a key 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.

**3. Continuation of traditional harvesting**

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. Other companies want to move towards so-called modern methods, which may not be environmentally friendly or sustainable and may cause

damage by removing *A. nodosum* holdfast material. BioAtlantis in contrast want to ensure that the traditional method continues, and is performed by locals such as you.

#### 4. Aquaculture site at Clynish island

We are aware of your aquaculture site at Clynish island and have it marked on our map BioA\_10-14-001.8. However, our application will not interfere with aquaculture activities. Hand harvesters will be people from the area who have in depth local knowledge of the various activities within the complex, such as aquaculture. 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".*

#### 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 hope that this letter addresses all of your concerns. Your comments are very much appreciated and welcome any further suggestions as to potential improvements to the plan. We would also like to meet with you to discuss the plan with the view to you potentially supplying BioAtlantis.

Best regards,

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

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

Reply to: Submission number 12

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. We would like to address each of your points as follows:

**1. Foreign commercial enterprises**

BioAtlantis Ltd. is an indigenous Irish company and not a foreign-owned company as suggested in your letter. Arramara Teoranta on the other hand, was sold by Údarás na Gaeltachta to a Canadian company called Acadian Seaplants. Acadian, under the guise of Arramara, now seek a licence to harvest seaweed from Clare to North Mayo. BioAtlantis Ltd. as an Irish company, are opposed to this. By obtaining a licence for Clew Bay, BioAtlantis will prevent monopolization of the Irish seaweed resource by Acadian, who are the biggest global competitor of Irish companies.

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.

**2. Seaweed harvesting and local communities**

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 (pg. 24), 2014:** We state that "local hand harvesters can continue harvesting in a traditional way".



**3. Natural flood defences**

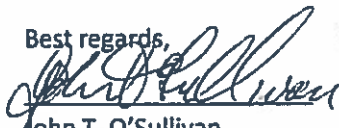
In our application, we determine that it is unlikely that hand harvesting will impact on natural flood defences such as Salt marshes. *A. nodosum* does not grow in large quantities in salt marsh areas and therefore will not be targeted for harvest activities. A mitigation measure is also in place to ensure that *A. nodosum*, should be present, will not be harvested at the fringes of salt marshes (See page 118 of our application). Mitigation measures are also in place to prevent an impact on other coastal habitats. BioAtlantis also assessed documents which relate to Mayo County Council's Strategic Flood Risk Assessment (2014). The council's aims are to minimise risk of flood to people, business, infrastructure and the environment by identifying flood risks. We identified no risk of in-combination effects between harvesting and these objectives (See pg 34 to Appendix 7 of our application).

**4. Special area of conservation**

Clew Bay is a Special Area of Conservation and there are a broad range of marine and coastal habitats and species 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. A Code of Practice for protecting the SAC has been developed on this basis (Appendix 4 to our application).

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> March 2015



BioAtlantis

Note  
Burdens in  
R13  
normally but  
not transferred  
to folios.

Reply to: Submission number 13

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. We would like to address each of your points as follows:

**1. Impact on marine life.**

Hand harvesting has been undertaken in Clew Bay by local harvesters from the area for generations and this has been largely sustainable. BioAtlantis will continue to work with local harvesters to ensure that practices are carried out in a traditional sustainable manner into the future. BioAtlantis have also assessed the requirements by NPWS and the EU to ensure that conservation objectives for marine and coastal habitats and species in Clew Bay are not impacted by hand harvesting. A range of mitigation measures have been developed along with a harvesting Code of Practice which is informed by best scientific knowledge. A Natura Impact Statement has also been submitted.

**2. Income**

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.

**3. Collection of seaweed, whelks, periwinkles, limpets, clams, mussels for personal use**

As stated on page 4 of our application, "Private, small-scale harvest of seaweed for personal use [<0.5 tonnes] will not be affected". This was also stated in the Mayo News press release on 16<sup>th</sup> December, 2014(pg. 24). Those collecting whelks, periwinkles, limpets, clams, mussels for personal use will not be affected.

**4. Shellfish, crustaceans and crabs**

Hand harvesting will take place at a sustainable level to ensure that *A. nodosum* is severed high above the holdfast, thereby ensuring that sufficient canopy coverage and habitat for crustaceans is maintained. Mitigation measures, monitoring and traceability systems have been developed by BioAtlantis to ensure that these standards are adhered to. This is outlined in Appendix 4 to our application ("Code of Practice"). Specific mitigation measures have been developed for dealing with potential by-catch such as crustaceans. On page 10 of our Code of Practice we state:

- Seaweed will be collected in nets with mesh space large enough to allow for Amphipods, isopods or other by-catch to escape. Typically, 2 hours will be available for animals to migrate out of the nets before transfer to the collection vessel.
- Inadvertent co-removal of periwinkles, amphipods, isopods or other *Animalia* identified on the collection vessel must be collected and returned to the water.

Page 1 of 4

**5. Large-scale removal**

The shore will not be denuded of seaweed. As explained in point 4 above, seaweed harvesting will take place at sustainable levels. Overharvesting will not occur. Systems have been developed to ensure that the quality of harvesting is monitored and levels and areas harvested are fully traceable.

**6. Diving, snorkelling, canoeing and swimming**

Sustainable levels of traditional hand harvesting will ensure that seaweed forests are maintained. Recreation, leisure and tourism related activities in Clew Bay are also described in Appendix 7 to our application. We have determined that there will be no significant in combination effects of hand harvesting with these activities on conservation objectives for the SAC. A number of mitigation measures have been developed such as avoidance of Collanmore during peak summer season so as to ensure that in combination effects do not occur at this busy site between May and August. Additionally, hand harvesters will not work within 50m of bases where equipment or vessels are manually introduced in the water.

**7. Harvesting seaweed at Rosnakilly**

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 (pg. 24), 2014:** We state that "local hand harvesters can continue harvesting in a traditional way".

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

**8. Periwinkles and shellfish**

The habitats of periwinkles and shellfish will be maintained as harvesting will take place at sustainable levels. 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. 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. The mitigation measures provided also ensure that the ecological niche of periwinkles is maintained and that overharvesting does not occur.

#### **9a. Ecosystem**

Clew Bay is a Special Area of Conservation and there are a broad range of marine and coastal habitats and species which must be protected under EU Law. 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. A Code of Practice for protecting the SAC have been developed on this basis (Appendix 4 to our application).

#### **9b. Local tourism**

As outlined in Appendix 7 and on page 126 of 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 interactions 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.

#### **10. Traditional way of life.**

BioAtlantis, as an indigenous Irish company, are committed to ensuring that traditional harvesting is maintained.

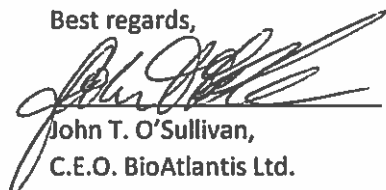
#### **Collection Vessel:**

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.

Best regards,



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

Date: 2nd March 2015

Reply to: Submission number 14

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.

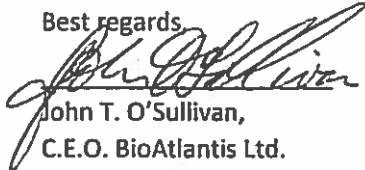
**Collection Vessel:**

BioAtlantis will 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. 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.

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 at Islandmore.

Best regards,



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

Date: 2nd March 2015



Reply to: Submission number 15

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 locals such as you. 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.

Page 1 of 4

**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 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 so. 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. 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 land.

**4. Emigration and economic decline**

Local farmers and harvesters should be at the heart of economic development in Clew Bay. As stated on line 40 on page 3 of our application, we wish to ensure that "harvesters can grow their business as employees or subcontractors of BioAtlantis". We will employ those who have traditional harvesting backgrounds in Clew Bay, and by doing so help preserve existing employment. We will ensure that the local economy benefits from our presence in Clew Bay.

**5. Benefits from processing of seaweed and numbers employed.**

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. Local harvesters who wish to work part-time can do so. The collection vessel provided by BioAtlantis will facilitate this. We will always work with local harvesters and this can include others in the future whom as you quite rightly suggest, may require the employment. Over the years, the number of people employed in harvesting has varied from time to time depending on demand. BioAtlantis is a growing company and will require a regular supply of seaweed. Therefore, this ensures that jobs can be full time or part time.

**6. Free market**

If BioAtlantis obtain a licence for Clew Bay, this prevents 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. 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.

**7. Reliance on Acadian/Arramara for future growth**

BioAtlantis cannot rely on our largest competitor Acadian to supply us with our raw material.

**8. Meetings with local harvesters**

We met with approximately ten local harvesters in Newport on 28/07/2014 and explained our plan. Further meetings are to be arranged to establish what arrangements would suit individual harvesters best.

**9. Assessments in Clew Bay**

A pilot study was performed as described in Appendix 1 to the application with the view to assessing *A. nodosum* levels reported by Hession et al., and other. This was a preliminary test of the methods and procedures employed in order to evaluate important aspects such as feasibility, time, costs, and the underlying variability. The pilot study was also deemed necessary to determine ways in which we could improve methods, prior to up-scaling to a larger assessment during the operational phase. EcoFact consultants Ltd. also performed an assessment in Clew Bay and wrote the Natura Impacts Assessment (NIS) which accompanies our application.

**10. Monopolisation of the seaweed resource**

Acadian/Arramara have applied for a licence to control most of the *A. nodosum* on the west coast, including Clew Bay. A licence for BioAtlantis in Clew Bay will prevent this Acadian/Arramara monopoly from occurring.

**11. Sustainability**


BioAtlantis wish to take care of regulatory, monetary and administrative aspects to obtain a seaweed harvesting licence in Clew Bay SAC. Approval for this licence depends on the sustainability of the harvesting system. Therefore, we have modelled the system on the sustainable traditional methods used in Clew Bay for generations.

**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 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 lands.

Best regards,

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

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

**Reply to: Submission number 16**

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**

We share your concerns about monopolization. Acadian/Arramara have applied for a licence to control most of the *A. nodosum* in Ireland, from Clare to north Mayo, including Clew Bay. This is certainly not in the best interest of traditional Clew Bay harvesters nor indigenous Irish companies such as BioAtlantis. A licence for BioAtlantis in Clew Bay will prevent this Acadian/Arramara monopoly from occurring.

**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 from 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. We will ensure that the local economy benefits from our presence in Clew Bay.

**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. BioAtlantis have 3 patents filed on the benefits arising from seaweed extracts and have over 20 peer reviewed publications on the 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 (pg. 33) we state that we will take an adaptive approach and work to include local knowledge as to best practice when

Page 1 of 2



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 in selling the business.

#### 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 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 April 2015

**Reply to: Submission number 17**

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 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. Income & livelihood**

We recognise that harvesting is a key 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 hope that this letter addresses all of your concerns. Your comments are very much appreciated and we welcome any further suggestions as to potential improvements to the plan. We would also like to meet with you to discuss the plan with the view to you potentially supplying to BioAtlantis.

Best regards,



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

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



Reply to: Submission number 18

Dear Sir/Madam,

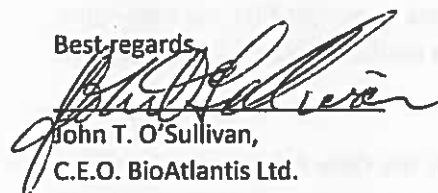
We thank you for your letter regarding BioAtlantis Ltd.'s application (Ref: FS6269) to hand harvest *Ascophyllum nodosum* seaweed in Clew Bay SAC. Firstly, we want to emphasise that BioAtlantis, as an indigenous Irish company, will work in partnership with local, traditional hand harvesters, landowners and those with fishing interests in the Clew Bay area. While your location in Achill is not included in our application, we can appreciate why this is of concern to you.

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. We hope that this letter addresses all of your concerns. Your comments are very much appreciated and we welcome any suggestions as to potential improvements to the plan.

Best regards,



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

Date: 2nd March 2015

Reply to: Submission number 19

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 also meet with landowners such as you. We envisage that local harvesters will continue to work in the same locations as they have done for generations, in a traditional manner. We would like to deal with each of your points as follows:

**1. Traditional harvesting and existing operators:**

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 at Rosmindle.

**2. Financial and employment aspects:**

We recognise that harvesting is a key 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.

**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. Extent of the resource and sustainable harvesting

We have applied for a licence to harvest a maximum sustainable level of 12,900 tonnes. However, the harvest cannot exceed what is environmentally sustainable, particularly with respect to the requirements for conserving reef and shingle areas of the SAC. In Appendix 4 to our application we explain that on-site assessments will take place prior to harvest taking place. This will ensure that only suitable sites will be subject to harvest. Fig.2 of our main application document also states that we will require validation of figures on a site by site basis, which will involve "inspection of Islands prior to scheduled harvest to confirm recovery of *A. nodosum*". Our biomass estimates were calculated based on data from Hession et al., (1998), our own on-site pilot study and information obtained through use of satellite images, tidal information and aerial photographs. We have applied to harvest a maximum of 12,900 sustainable tonnes, a figure slightly less than that previously reported for Clew Bay by Hession et al., (1998). We will validate biomass levels on a site-by-site basis during the operational phase of this licence application.

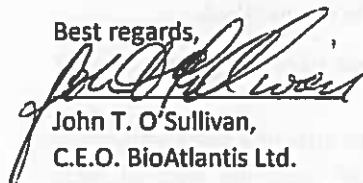
#### Background to the licence application

As you may be aware, 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. As stated above, BioAtlantis will make a commitment to pay a market leading price for seaweed.

We hope that this letter addresses all of your concerns. Your comments are very much appreciated and we would like to meet with you to discuss the plan further.

Best regards,



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

Date:

2nd March 2015

**Reply to: Submission number 20**

To the Clew Bay Seaweed Association,

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 envisage that local harvesters will continue to work in the same locations as they have done for generations, in a traditional manner. We would like to address each of your points as follows:

**1a. Long standing business of local people**

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.

**1b. Sale of the harvesting asset**

BioAtlantis will not sell a harvesting licence as an asset.

**2. Companies in Clew who buy seaweed from harvesters.**

In your letter, you elude to a number of companies who purchases seaweed from Clew Bay, one of which is Arramara Teo. As you know, Arramara were recently bought by a Canadian company, Acadian Seaplants. Acadian, under the guise of Arramara, have applied for a licence to harvest seaweed from Clare to North Mayo. The majority of *A. nodosum* in Ireland is found on the shores of Galway, therefore providing Acadia/Arramara with ample capacity for expansion, without also extending their reach into Mayo. No Irish company favours the Acadian/Arramara application. Acadian/Arramara pose the biggest threat in terms of a monopoly developing and may undermine the integrity of the entire the Irish seaweed industry. However, we offer a viable alternative, which will benefit local, traditional hand harvesters.

**3. Employment for existing cutters.**

BioAtlantis 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".

**4. Sustainable harvesting.**

We are cognisant of the fact that traditional hand harvesting represents a sustainable means of harvesting. We developed our plan on this basis. Other companies on the other hand are moving towards so-called modern methods, which may not be environmentally friendly or sustainable. BioAtlantis will to maintain the traditional method of cutting.

**5. Supply & demand and the value of the resource to the local community.**

As above for 1a.

**6. Public interest.**

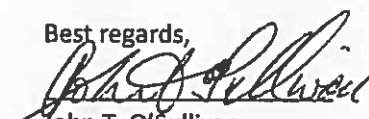
The situation in Clew Bay has varied from a high demand for seaweed to little or no demand. We are building a company based on added value products and not one based on simply drying seaweed and exporting a commodity. We are looking for a stable supply and are willing to offer a premium price for that.

**Collection vessel:**

We are willing to invest in a collection vessel. This will remove some of the arduous work associated with hauling seaweed shore.

I think that it is in both the Clew Bay hand harvester's best interests and that of BioAtlantis to sit down and have a proper discussion on how to work together.

Best regards,

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

Date: 21st March 2015

