## The European market potential for seaweed

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The European seaweed market is expanding, because of a growing demand for alternative and sustainable proteins along with a growing demand for products with nutritional benefits. The consumption and popularity of seaweed are growing, especially in many coastal countries which already have some familiarity with this product. On a global scale, the commercial seaweed market is projected to grow from \$15.01 billion in 2021 to \$24.92 billion in 2028 at a CAGR of 7.51%, making it one of the most promising products in the seafood industry.

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In general, seaweed imports fell in recent years due to the COVID-19 pandemic. However, demand for seaweed is projected to grow quite strongly in the coming years as consumers are becoming more familiar with it. As a result, consumers are pushing restaurants and retailers to offer this product. Europe is now looking into growing its own seaweed. With this growing demand, you have an opportunity to export value-added seaweed products, such as dried or powdered seaweed.

## 1. Product description

Seaweed is a form of algae that grows in the sea. It can have different colours like red, green, brown or black. Seaweed plays a vital role in the aquatic ecosystem by providing essential habitat for fisheries and other marine species. Seaweed is also harvested and cultivated for food.

In this study, we refer to seaweed under the HS code 12122100 which is stated as "seaweeds and other algae, fresh, chilled, frozen or dried, whether or not ground, fit for human consumption". CBI has published a separate study on exporting seaweed extracts for food and marine algae such as spirulina and chlorella. In this study, we look at seaweed imports not only for the retail and foodservice sectors but also seaweed imports for use in the food processing industry in Europe.

The HS code does not distinguish between the type of edible seaweed, common edible seaweed includes the family of red algae (*Rhodophyta*), green algae and brown algae (*Phaeophyceae*). According to the United Nations Food and Agriculture Organisation, the global production of brown, green and red seaweed reached 35.5 million tonnes in 2019. Since 2015, the production volumes have been steadily increasing. Compared to 2015, seaweed production had grown by 12% in 2019. Asia is the largest producer of seaweed, covering around 97% of the world's seafood production.

## 2. What makes Europe an interesting market for seaweed?

There is a rising demand for seaweed due to its unique taste, nutritional benefits and ease of use. Many Europeans are familiar with it, mostly the people from coastal countries like the UK and France. Furthermore, the number of Asian restaurants in Europe is growing, and seaweed is an important ingredient in their cuisines. Many seaweed products used in these Asian restaurants are usually imported from Asian countries because they are grown and produced only in that region. As such, there is room for importing seaweed from non-European countries.

#### Growing consumption of seaweed in retail and restaurants

The seaweed food market is growing at a fast pace. A study by Mintel found that the number of food and drink items containing seaweed or seaweed flavours on the European market increased by 147% between 2011 to 2015.

In the retail market, seaweed products are more and more easily available. The food industry is innovating with seaweeds. The product is becoming more recognised as a unique flavour that has many food applications. It is finding its way into rice dishes, soups, crackers, pâté and mustard. In the foodservice sector, seaweed dishes are becoming more widely known. Due to the growing popularity of Asian cuisine in Europe, more people are getting used to eating seaweed. It is widely used in sushi, miso soup, onigiri and related dishes. With the rising number of Asian restaurants and ethnic retail stores, there are many opportunities to sell your product.

Seaweed also has other applications in the food industry. It can be used to produce thickening and gelling agents or as a substitute for processed meat, as there is a growing demand for plant-based products in Europe. Seaweed is also used in food flavouring or additives for various snacks and value-added items. Check out the potential of seaweed used as food extracts in this CBI study.

In the table below, you can find other applications of seaweed beyond the food industry. Please be aware of this, as it can help you develop and innovate your product.

Figure 2: Applications of seaweed

			○ Health-benefit   Ø Environmental benefit	
Segment	Example application	Primary functions	Benefits	
Food	Raw salads, crisps, spaghetti, burgers	Source of energy, protein and vitamins	☼ Supports healthier diets due to high minerals, vitamins, protein and fibre contents Ø Lower environmental footprint than animal or land-based alternative protein sources	
Additives	Gelatine substitutes, processed meat and dairy	Provision of thickening, stabilising and emulsifying properties	Natural and vegan-friendly     Lower environmental footprint than animal-based alternatives	
Animal feed	Livestock feed supplements, aquafeed supplements, pet food additives	Promotion of positive immune response and gut health; improvement of digestive processes		
Biostimulants	Seed treatments	Stimulation of plant growth, protection against abiotic stress	Dower environmental footprint than nitrogen fertiliser alternatives     Promotes plant health, productivity and soil regeneration	
Pharmaceuticals & nutraceuticals	Gastrointestinal protectors, biodegradable wound care products / nutrient health supplements	Source of bloactive and nutrient-rich ingredients	Disease prevention and treatment     Natural health enhancers	
Cosmetics	Anti-aging moisturisers, toothpaste	Source of bioactive and nutrient-rich ingredients; provision of thickening, stabilising and emulsifying properties	Natural and vegan-friendly     Supports skin health	
Elio-packaging	Packaging, coatings and plastic films for food containers	Source of marine-safe and compostable plastic molecules	Replacement of substances causing environmental damage in production (fossil fuel) and after end-of-life (ocean leakage)	
Biofuels	Biodiesel for use in cars	Source of energy	Replacement for fossil fuels or land-intensive biofuels  Made from seaweed processing by-products	

Note. This but anote to highlight come of the most exciting applications only. Deserved can be used in many more promising and immerities applications, including testile films, launit descriptions and construction materials. Source: Seaweed for Europe (2021)

#### Import from developing countries is needed to meet the demand

Despite the growing production in Europe, it is not enough to meet the demand. Wild seaweed production decreased due to excessive harvesting and unpredictable weather in the past years. There are only a few main seaweed producers as this industry is still relatively new. In addition, some popular seaweed products can only be found, grown or produced in other countries. So there is room for non-European exporters.

Europe mostly focuses on the production of brown seaweed such as:

- 1. oarweed (Laminaria digitata);
- 2. tangle (Laminaria hyperborean);
- 3. rockweed or knotted kelp (Ascophyllum nodosum).

The most popular species from outside Europe are:

- 1. kombu (Saccharina and Laminaria);
- 2. nori (Pyropia yezoensis and Pyropia Tenera);
- 3. wakame (Undaria).

These are products usually sourced from Asian countries.

Figure 3: Sample of kombi, nori and wakame products



Source: Google Creative Commons (left to right: kombu, nori and wakame) (2021)

Other species of seaweed such as Hijiki (Sargassum fusiforme) and Arame seaweed (Eisenia bicyclis) are also only grown in Asia and not in Europe itself.

Figure 4: Samples of hijiki and arame seaweed





Source: Superfood Store (2021)

Now let's look at the actual imports from exporters from developing countries. The share of exporters from outside Europe is small compared to imports from European countries. Seaweed imports from non-European countries comprised 25% of the total European seafood imports in 2020. Looking at the graph below, imports had been stable in 2017 and 2018 but dropped in 2019 and 2020. In 2020, imports of seaweed from developing countries reached their lowest level yet (933 tonnes). Much of the seaweed products imported from developing countries are dried, processed or value-added products.

While the volumes were low due to lowered demand and logistical problems during the pandemic, the percentage share of developing countries has been increasing. Their share in imports from non-European countries increased from 36% in 2017 to 54% in 2020.

However, looking at the bigger picture, your main competition in the European seaweed market is Europe itself. In 2019, Spain, Germany, Ireland, the Netherlands and France were the top exporting nations within Europe. In 2020 Ireland led the pack, followed by Germany, the Netherlands and France.

Figure 6: Species harvested and harvesting techniques in Europe

Species	Gathered by hand on shore (drift and attached)	Mechanical harvesting	Diving	Farming (including trials)
Alaria esculenta	<del>20</del>			11113
Ascophyllum nodosum	※			
Asparagopsis armata			•	1111
Chondrus crispus	<b>※                                      </b>		•	11
Codium sp.	<b></b>		•	
Corallina officinalis	<del>28</del>	11		
Dilsea carnosa	11			
Fucus ssp	<b>※                                      </b>		•	
Gelidium corneum				
Gelidium sesquipedale	112	III	• •	
Gigartina pistillata	<b></b>			
Gracilaria spp.				0
Himanthalia elongata	₩         =			
Laminaria digitata	<b>※                                      </b>	III	90	
Laminaria hyperborea		11 90	-	<del>213</del>
Mastocarpus stellatus	<b>※                                      </b>			
Palmaria palmata				1111
Porphyra umbilicalis	₩     =			11111
Saccharina latissima	<b>≋</b> ■ ■ <b>■ ■</b>	<b>I</b> I	• #=	
Ulva sp.	※		•	11
Undaria pinnatifida				112

Source: Netalgae.eu

Imports from within Europe took up almost a third (74.3%) of the total imports in 2020 with 5,007 tonnes. Compared to imports in 2017, intra-European imports of seaweed were 57% lower in 2020. Overall imports of seaweed were impacted by the lockdown in 2020, as seaweed is mostly consumed in Asian restaurants.

In 2017 and 2018, the trade of seaweed within Europe was quite stable. That is because the European seaweed production sector itself is growing. Many European producers are investing in seaweed due to its many applications and its capability to boost economic growth and create employment opportunities. Europe has a strong focus on harvesting seaweed from the wild, and the aquaculture industry is still very much in an early stage.

According to a study, European HOMEs (high opportunity marine ecoregions) were seen as the ones with the highest opportunity to grow seaweed production. While this could mean increased competition for seaweed exporters from developing countries, this also means that overall demand for seaweed may increase as more and more consumers become familiar with it.

For seaweed aquaculture, the top 25 HOMEs included six in Oceania (35 per cent of all MEs), six located in Europe (33 per cent), five in North America (15 per cent), six in Asia (14 per cent) and two in South America (8 per cent). Read the summary report about the global opportunities for seaweed production on the Global Seafood Alliance website.

## 3. Which European countries offer the most opportunities for seaweed?

The main importing countries are the United Kingdom, France and Germany. Other European countries that import seaweed, although in lower volumes, are Austria, Italy, Spain and the Netherlands.

European countries differ in their preferences for seaweed species. The UK is the largest consumer of nori or dried seaweed (the most popular product across the European market), France has the highest consumption of dulse seaweed.

#### The United Kingdom is the top seaweed importer in Europe

The UK is traditionally the main seaweed importer in Europe and also has a growing local seaweed production. In 2019, the UK imported 6,271 tonnes of seaweed valued at \$12,846. This fell short of the imports in 2018 which reached 7,644 tonnes valued at \$16,531. Not only is the UK's demand getting bigger, but the UK is also poised to become one of the European leaders in seaweed farming. The UK government has self-sufficiency goals allowing local producers to thrive and sell their products in the domestic market. Since the UK already has a strong fishery sector, seaweed acts as a complementary product.

The UK mostly imports dried seaweed and other value-added products from non-European countries. The demand for seaweed is growing in the UK due to its evolving culinary scene which uses more and more "sea vegetables" in the menu or products.

Furthermore, there is also a rise in veganism and vegetarianism in the UK which also fuels the growth of seaweed demand. According to Statista, 4.38% of the UK population identified themselves as a vegan. In 2020, over 1,200 new vegan-friendly products were launched, and 600 vegan businesses registered.

However, as the UK already left the European Union, exporters must be aware of the consequences of trading with the UK, especially in logistics and trade deals. If you are exporting to the UK, you may have to adapt your business to the new rules. Brexit and the new trade deal affect customs, tariffs, food safety checks and labelling. If you have a business representative working in the EU, they may not be able to travel to the UK. Make sure your representative has a valid visa or residency permit.

For exporters, it is important to know that the EU and UK regulate their own food safety standards. This means that there will be border checks to make sure imported products meet the standards. Furthermore, as of 21 April 2021, there is also a new health certificate requirement. You can check the changes via the UK government website.

#### Tips:

If you are an exporter already trading with the UK, check out Brexit changes in the British seafood market in this article.

Visit the websites of some of the UK seaweed producers including The Cornish Seaweed Company, SeaGrown, Shore, and Beachfood company to learn about how seaweed is produced and sold locally within the UK and learn about the British seaweed food culture.

Visit the websites of ethnic retail stores in the UK such as Oriental Mart and Asian Online Superstore to check how seaweed products are sold and marketed.

### France has a strong seaweed culinary culture

Next to the UK, France is traditionally the second-largest importer of seaweed. Between 2017 and 2018, imports of seaweed into France increased by 5% from 2,869 tonnes to 3,034 tonnes. In 2019 and in the pandemic year 2020, the numbers slowed down and reached 1,002 tonnes in 2020. Despite the smaller volumes imported by France, the prices seemed to pick up since 2018 from \$4.00/kg to \$6.00/kg in 2020. This proves that French buyers are willing to pay more for these products and the rise of prices was likely also influenced by the lack of

raw material available due to logistics difficulties.

Due to its wide coastlines and strong fishing history, French consumers have been traditionally familiar with eating wild seaweed which was also harvested in the Brittany region. Brittany's chefs have also been incorporating dulse seaweed and nori in their seafood menus, for example.

Despite a strong seaweed production, France still relies on imports to fulfil its needs, particularly for dried seaweed and other value-added products. France has a rich history of seafood consumption and an exquisite seafood culinary scene, making it a good seaweed market. Apart from French consumers' exposure to seaweed cuisine, the rise of Japanese and other Asian restaurants and Asian retailers in France has also paved the way for consumers to grow accustomed to seaweed flavours. In the worldwide culinary scene, France and Japan are both considered gastronomic leaders. Many chefs in France are trained in Japan, where seaweeds such as nori are widely used in sushi-making and other dishes. As such, this kind of culinary connection and mutual respect between France and Japan has led to a wide interest in ingredients and techniques widely used in Japan. In France, for example, there are more and more Japanese restaurants and more French chefs are practising Japanese or Japanese-French fusion cuisines. In some cases, France is known as the Japan of the West and Japan is the France of the East. You can use this food culture connection in order to better market your seaweed and introduce new recipes and products that incorporate seaweed in them.

#### Tips:

Check out ethnic retail stores in France such as Angkor-Store, Paris Store, Tang Frères which offer a wide range of dried seaweed and other value-added products. Type *algue*, which is French for seaweed, in the search box.

Check out some seaweed processors in France including Algoplus Roscoff, Bord à bord, GlobeXplore and Marinoë to learn about how seaweed is produced and sold within France. As an exporter, it is good to know your competition and see how to best market the product within your desired country.

#### Germany's love for veganism and organic products drives seaweed demand

Germany was the third-largest importer of edible seaweed in 2019. Seaweed imports from Germany reached 1,332 tonnes in 2020, which was even higher than imports in 2018 which only reached 915 tonnes. Germany is quite a stable market and import prices for seaweed remained strong even during the pandemic in 2020. Import prices stayed at \$7.00/kg in 2019 and in 2020.

Germany's growing demand for seaweed comes from its interest in organic products and veganism. According to a study by CBI on the market potential for seaweed and marine algae, veganism in Germany has expanded rapidly, with the country having an estimated 814,000 vegans in 2019. Germany's vegan population is expected to continue growing in the coming years.

In fact, many seaweed products are becoming more widely available, appearing not just in Asian retail but also in mainstream retail stores. Exporters can use the rise of veganism in Germany to promote their seaweed products. For example, Edeka, a major retailer in Germany promotes the use of seaweed in salads and snacks by providing recipe ideas and making seaweed more accessible to ordinary consumers. Of course, Asian online retail stores like Nanuko and Go Asia can also present opportunities for exporters to sell their products. Type seetang in the search box, which is the German word for seaweed.

Remember that Germany is also a trading nation, thus for exporters, having access to the German seaweed market means that you can also get access to other European countries.

# 4. Which trends offer opportunities or pose threats on the European seaweed market?

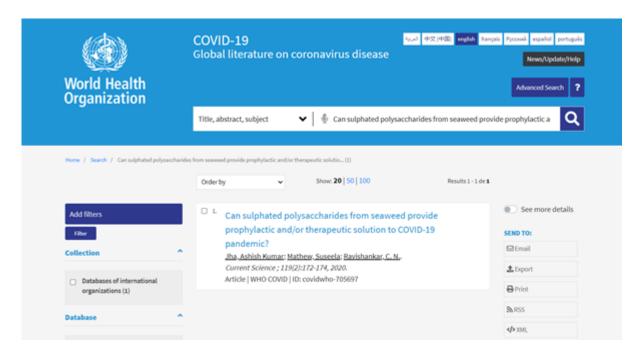
There is an increasing demand for seaweed products across Europe as it is widely perceived as a healthy, plant-based and sustainable protein. Exporters can capitalise on the various food applications of seaweed in the foodservice sector or in the retail sector, both in ethnic and mainstream retail. To compete with European seaweed producers, exporters must invest in sustainable production and marketing.

#### Seaweed as a healthy and alternative protein

Consumer demand for natural and healthy products is increasing. A huge part of consumer interest in consuming seaweed is its perceived health benefits. While every type of seaweed has distinct levels of nutrient content, all types contain a supply of minerals, most notably calcium, iron, zinc and iodine. For example, red and green varieties have a higher protein content than brown seaweed which is richer in iodine.

The health benefits of seaweed are being recognised more and more. During the pandemic, seaweed even had its own share of increased popularity after the World Health Organization included a study on seaweed benefits under the 'COVID-19 Global literature on coronavirus disease'. This study has been picked up in the seafood industry media site The Fish Site. This was explored in a recent publication in Current Science under the title 'Can sulphated polysaccharides from seaweed provide prophylactic and/or therapeutic solution to Covid-19 pandemic?' it was written by Jha Asish, Mathew Suseela and CN Ravishankar, from India's Central Institute of Fisheries Technology (CIFT). Several polysaccharides isolated from red and green seaweeds have been evaluated for their antiviral characteristics and have been found to inhibit the initial attachment of viruses to host cells, which in turn effectively block the viral entry to the human body.

Figure 8: COVID-19 Global literature on coronavirus disease



Source: WHO

In order to appeal to European consumers, you should highlight the health benefits of your seaweed products. Communication is key.

#### Tips:

Focus your advertisements and marketing on communicating the nutritional properties of seaweed to appeal to the health consciousness of the consumers. Brainstorm with your buyer how to best reach out to the consumer.

Suggest some healthy seaweed recipes where consumers can use seaweed as a meat replacement or suggest some plant-based recipes.

As some seaweed species have unique nutrients and compounds, you can also highlight the differences in nutritional contents in your products. This way, you can create a unique selling point for your seaweed product.

#### Rise of veganism

The rise of veganism and the search for alternative proteins have also been huge drivers for mainstreaming seaweed consumption. Europe has a growing market for plant-based proteins as consumers are increasingly seeking plant-based foods. Currently, there are an estimated 75 million vegans and vegetarians living in Europe, with a recent consumer study revealing European consumers are willing to change their eating habits to plant-based foods. According to Google Trends, interest in 'veganism' increased sevenfold between 2014 and 2019.

The vegan and vegetarian population in Europe is expected to increase in the coming years. This presents an opportunity to exporters of spirulina and/or chlorella in developing countries. The perceived positive health impacts of a vegan diet along with ethical and environmental concerns are the key drivers for consumers to replace meat with vegan or vegetarian alternatives. For example, meat production has a high environmental impact as it requires intensive use of resources, particularly land and water, and it is a significant generator of greenhouse gases. You can use this growing veganism trend in order to push their products better to this market, especially if you can also present some vegan dishes and suggestions for seaweed recipes that might be interesting for the consumers.

#### Tips:

Be careful when making health claims about seaweed. Familiarise yourself with EU health claims regulations and ensure you are compliant with them. See the list of permitted health claims under EU law

Read the "Nutritional and digestive health benefits of seaweed" in this research article and the health benefits of seaweed in this news article.

Inform potential European buyers about seaweed as a high-quality protein source. Use statistics and scientific data to show how seaweed compares with meat and other types of plant-based protein. Use this information in your marketing materials.

## **Competition in Europe is growing**

As a result of the growing seaweed competition in Europe, a bigger range of products is being presented. So you should look for information about how to compete with your product. Different seaweed products on the market are on the rise as more consumers become familiar with them. Remember that Europeans are also producing their own seaweed products and they are becoming more widely available.

According to an importer in the Netherlands, the main reason they prefer the European-grown seaweed is to reduce the carbon footprint of importing from the Far Eastern countries in Asia. "We want to support our own local production so we can create more jobs here and introduce seaweed to European consumers," an importer said.

While increased competition can be challenging, it can also be a way for you to monitor the current trends and food applications of seaweed. That way you can get to know the market even better. Because food applications are numerous, the potential of seaweed products is also big. It is a versatile product that many retailers and foodservice industries are becoming more accustomed to.

Let us look at some products available in Europe, so you can see how seaweed is presented and sold. In the retail section of Albert Heijn in the Netherlands for example, many seaweed products are readily available to consumers, including seaweed chips, seaweed salad and seaweed burgers.

Figure 9: Sample of seaweed products found in Dutch retail store Albert Heijn







Source: Albert Heijn

Other innovative seaweed products in the Netherlands are sold online include seaweed bacon, seaweed pasta, or seaweed wraps which are produced by Seamore. In Seamore's webshop, they have a section informing consumers how seaweed is harvested and also suggest recipes for seaweed. Check out the Zeewier winkel to see what kind of products are available in the Netherlands. Most of their products, however, are sourced from within Europe such as France, Ireland, Spain and the Netherlands.

Figure 10: Seaweed pasta



Source: Seamore

The food applications of seaweed are endless. It can be used in chips, spreads, dried condiments and even alcoholic drinks. Beachfood Company in the UK specialises in making unique seaweed products and telling the story behind them.

Some of their products are dried seaweed condiments, seaweed purees, seaweed beer, and even alcohol-infused with Pembrokeshire laver seaweed. While much of the seaweed used in these products are from the UK itself, the approach and storytelling used by the company is something that exporters can get inspiration from.

Figure 11: Sample of seaweed condiments and seaweed-infused alcohol





Source: Beachfood Company

In France, seaweed processing company Algoplus Roscoff offers guided tours that help people discover the job

of seaweed collecting (goémonier) and have them take part in the production steps in the artisanal cannery factory. The storytelling and demystification of the applications of seaweed could be useful if you want to share your own stories about your seaweed production.

#### Tips:

Read some recipes that incorporate seaweed and are popular in the Netherlands. Study the European palate to find out how they like seaweed in their daily meals.

Read about the consumption patterns of European consumers for aquaculture and fishery products

Study how the European producers themselves promote the consumption of seaweed to European consumers. Check out Seamore (Netherlands), Beachfood company (UK), Algolesko (France) to get some ideas.

Check out this article written by CBI about the growing appetite for seaweed in Europe.

#### Rise of ethnic retail stores in Europe

The ethnic population is growing in Europe due to the existing colonial heritage but also immigration. Of the total European Union population of 510 million, about 20 million (4%) are members of diasporas of non-European origin. European countries with the highest number of such diasporas are the countries mentioned earlier – France, the United Kingdom and the Netherlands – as well as Germany, Italy and Spain. Within Europe, there is a growing interest in new cuisines that incorporate seaweed due to different factors, including:

- a growing multicultural society in Europe;
- the growth in international travel;
- the visibility of international cuisine types in foodservice and the media.

This means that the ethnic population is constantly looking for ingredients that may be familiar to their own cuisines. Furthermore, the non-ethnic population is also getting used to Asian cuisine which uses a lot of seaweed products. Due to this growing interest in new cuisine types, more and more customers visit ethnic markets to purchase the necessary ingredients. For you, this could be a good opportunity to look into selling in ethnic retail. Because the mainstream retail market is usually hard to penetrate, seaweed products such as dried seaweed or frozen seaweed salad could be easier to market in ethnic retail stores.

#### Tips:

Offer recipes that incorporate seaweed. New potential customers are not always familiar with how to prepare a dish with seaweed and recipe suggestions can entice consumers to buy more seaweed products.

Read the CBI study about ethnic supermarkets in Europe and find more information about the European ethnic market.

## Seaweed is getting more popular but is still a niche

Despite its increasing popularity, many European consumers are not used to eating seaweed. Although it is gaining ground in the food processing, foodservice and retail sectors, it remains a niche product, a speciality

food.

As it is a 'new' food, consumers must first experience eating it. To help them get used to it, you could advise your end customers on how to best bring out the flavour. Or you could talk to restaurants about how to incorporate seaweed into their menu. You could suggest recipes or products that create an umami flavour in the dishes. If you want to know more about seaweed in the foodservice sector, please read the CBI Market Entry study.

#### Demand for organic seaweed on the rise

Despite being a niche segment, the demand for organic products is growing. Organic seaweed is a seaweed that is farmed or produced following a production system that sustains the ecosystem in which it is grown. Organic seaweed production involves a responsible use of water, energy and other resources, the preservation of biodiversity and also a concern for the welfare of people farming it.

To assure buyers that your products are organic, a certification is usually needed in Europe. Since seaweed can be naturally grown or harvested without the use of any chemicals or pesticides, organic certification for seaweed can be easier to acquire compared to other seafood products.

On its own, seaweed is carbon positive and can be produced with little land use, and does not need pesticides or fresh water. The production of seaweed also has a low environmental footprint and it requires no fertilisers or a cleared plot of land to grow. It can also provide an alternative livelihood to coastal communities. With the majority of fisheries depleted, seaweed cultivation presents employment opportunities.

The EU regulation on organic production and labelling of organic products allows the use of non-certified additives in end products labelled as organic, which includes the additives carrageenan, alginates and agar. Nonetheless, many manufacturers of organic products aim to have all their ingredients organic certified, including the additives.

#### Tips:

Consider getting organic certification for your seaweed products. Visit the IFOAM website for further information on EU organic certification.

Read the study on Organic Seafood written by CBI to know more about organic certification.

#### Demand for sustainable seaweed is growing

The demand for environmentally and socially produced products is increasing across Europe. Sustainable seaweed is seaweed produced according to sustainable farming standards (for farmed seaweed) or sustainable harvesting methods (for wild seaweed). In order to assure your buyers that your products are sustainable, you must have certification.

Since seaweed can both be farmed and harvested from the wild, both the Marine Stewardship Council (MSC) and the Aquaculture Stewardship Council (ASC) apply to seaweed certification. Major retailers in Europe already ask for certifications like ASC/MSC and the demand for certified seaweed will only grow in the future. For you, as an exporter, this means that there is an opportunity for certified sustainable seaweed. You must look into these relevant certifications and assess whether you can have your seaweed certified.

Many European consumers and retailers, especially in Northwestern Europe, are asking their suppliers to obtain sustainability certifications for their products. Or at least to take part in an Aquaculture Improvement Project

(AIP) or Fishery Improvement Project (FIP). These programs offer fisheries and aquaculture independent verification of their progress towards certification.

If you are a producer planning to become certified, these improvement projects can help your business achieve certification. You can take a look at the Fishery Progress website to learn more about how FIPs work. If you are an exporter, browse their FIP Directory to locate potentially interesting fisheries to source your fish.

Figure 12: ASC-MSC certified seaweed



Source: ASC-MSC

An example of a developing country that is looking into the certification of seaweed is Indonesia. In fact, Indonesian stakeholders have actively taken part in the development of the ASC-MSC Seaweed standard. Over the next few months, as part of the UNIDO SmartFish programme, farmers will engage in pre-assessments against the standard with the aim of ultimately getting certified.

While still not certified, several Indonesian seaweed processors are ISO 14001 certified to demonstrate their commitment to continuous performance improvement in environmental management. Check out Indonesia Seaweed's website to find a list of suppliers from Indonesia.

Now let us look into the outlook for sustainable seaweed. Sustainable seaweed has widespread support from the European Union and this trend is likely to continue. Exporters from developing countries should be able to adjust their portfolio and production to sustainable methods and already look into certifications if they want to follow this trend.

With seaweed production being aligned to Europe's sustainable goals, the European Union itself is working on increasing the sustainable production of seaweed within Europe. In fact, part of Europe's new Green Deal aims to accelerate the economic transition to fair, healthy and environmentally-friendly food systems which include seaweed production.

Aside from being sustainable on its own, seaweed is also a high-potential renewable material that can help produce more sustainable products. It is a regenerative material, with unique properties which are crucial to the ocean ecosystem. The study 'Seaweed for Europe', points out that seaweed does not need a lot of space to grow and does not rely on fertilisers, unlike other crops. In addition, seaweed has many health and environmental benefits. The expansion of seaweed farming in developing countries could help local communities earn a living while improving the ecosystem around them.

#### Tips:

Consider obtaining certification that demonstrates that you uphold environmental and social responsibilities. The most relevant certification in this sector is ASC-MSC Seaweed Standard.

Check the AIP Directory website to understand what AIPs are and to find potential projects that produce farmed fish in AIPs.

Read the CBI study Exporting certified sustainable seafood to Europe to know more about sustainability certifications. Inform potential buyers about your company's efforts to ensure sustainable production of seaweed, as well as efforts made in improving the social conditions of your seaweed producers.

Read the report Seaweed for Europe: Hidden Champion of the Ocean to better understand the potential of the seaweed industry in Europe.

The study has been carried out on behalf of CBI by Seafood TIP.

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