



Piet Bogaert, PhD

Seagriculture USA, 2024

Seaweed

an important source of nutrition, everyday products and one of the links in the sustainability chain

Red Seaweed Promise™

www.cargill.com



Our purpose is to nourish the world in a safe, responsible and sustainable way.

Who we are

155,000 employees

Working in 70 countries

More than 150 years of experience

Our business



For farmers
We supply feeds, other inputs and expertise to farmers, and buy crops and livestock from them

We provide insights to our partners



We transform raw materials into finished goods



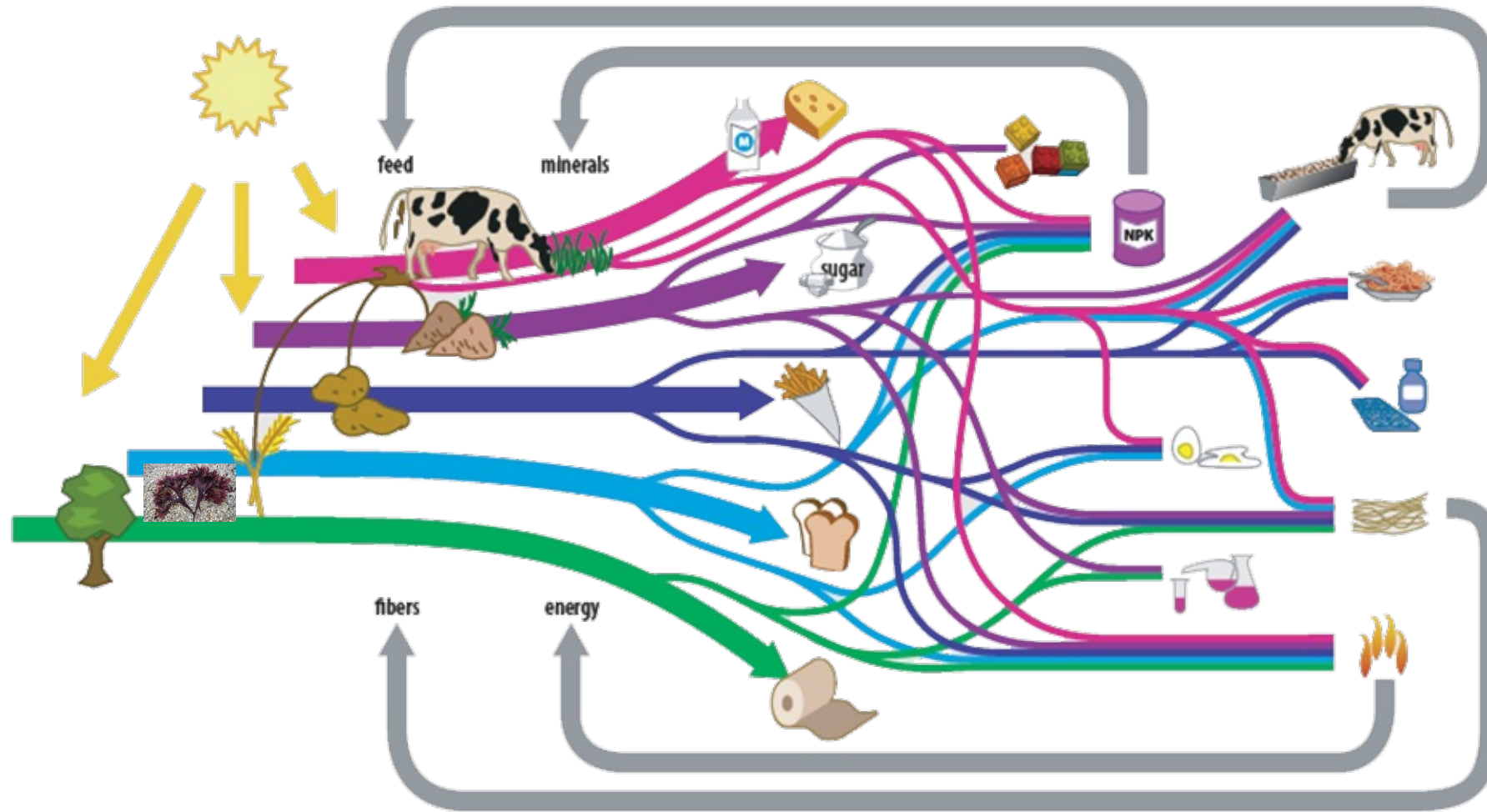
We move products around the world



For customers
We deliver finished goods to customers in the foodservice, retail, consumer packaged goods and industrial sectors

Cargill reports financial results in accordance with U.S. generally accepted accounting principles (GAAP). The company also reports adjusted operating earnings, a non-GAAP financial measure that provides additional insight into the underlying financial performance of the company's ongoing operations.

Bioeconomy Value Chain



Source: Idiomorf Infographics & Dutch Bio refinery Cluster

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Seaweeds

- **as food**
 - **as biological active**
 - **as animal food**
 - **as building material**
 - **as**
-

06.00

In **Toothpaste**

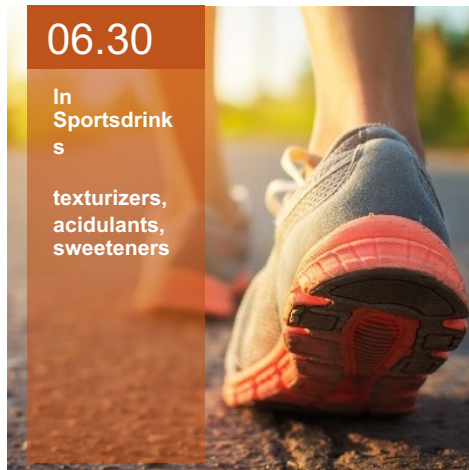
non-cariogenic, tooth-friendly **Ingredients.**



06.30

In **Sportsdrinks**

texturizers, acidulants, sweeteners



07.00

In **Petfood**



07.10

In **Shower gel**

Texturizers, moisturizers, emollients



07.30

In **yogurt**

Proteins, Texturizers, health ingredients



11.30

In **Pharmaceuticals**

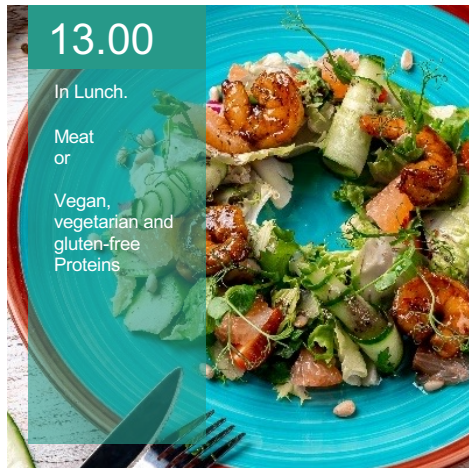
Oils, dextrose, starches, seaweed extracts



13.00

In **Lunch.**

Meat or Vegan, vegetarian and gluten-free **Proteins**



16.00

In **pastry**

low or no-calorie sweeteners

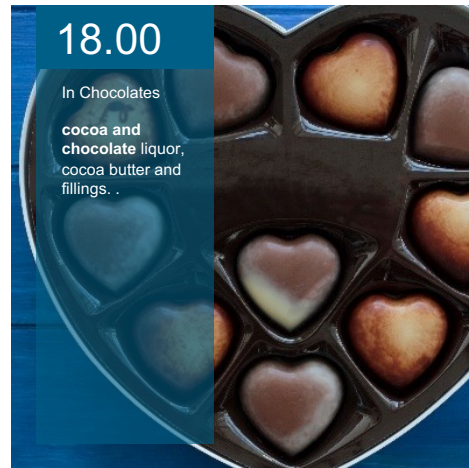
Oils, **Cocoa butters**



18.00

In **Chocolates**

cocoa and chocolate liquor, cocoa butter and fillings. .



18.30

In **baby food,**

Carbohydrates
Oils
Proteins
Health ingredients



19.00

In **Candles.**

renewable vegetable wax .



19.30

In **Salmon :**

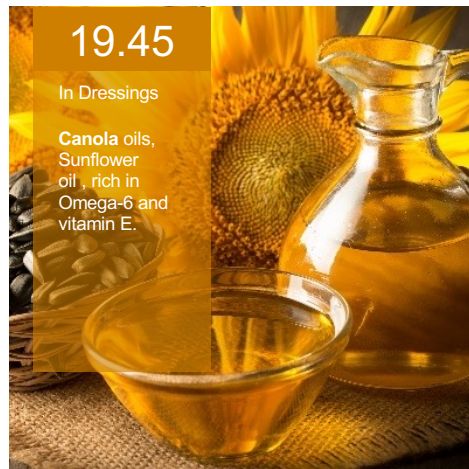
Aquafeed solutions



19.45

In **Dressings**

Canola oils, Sunflower oil , rich in Omega-6 and vitamin E.



20.00

In **Frozen dessert**

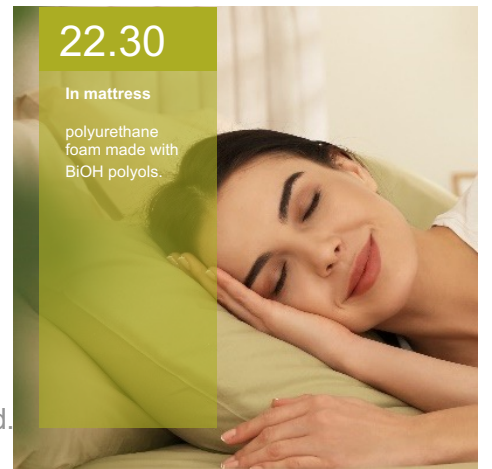
gelling , thickening, aerating ingredients (stevia-based)
Sweeteners, Fats & oils



22.30

In **mattress**

polyurethane foam made with BiOH polyols.



Seaweeds & Sustainability

Red Seaweed Promise TM

Introducing the Cargill Red Seaweed Promise™

2017 Red Seaweed Promise 1.0

With no sustainability standards applicable to red seaweed production by smallholder farmers, the Red Seaweed Promise standards were set up based on Cargill sustainable goals, UN Sustainable goals and close existing standards



UN sustainable development goals



Other close standards (ASM-MSC ...)

Red Seaweed Promise™
Global sustainability program

- Empower producers
- Community support
- Improving production
- Strengthening partnerships

A unique sustainability program for red seaweed **addressing key sustainability challenges** leveraging the strong partnerships we have with **our suppliers and seaweed producers**

&
Provision of **externally verified sustainability sourced carrageenan** through a **global mass balance system**

Red Seaweed Promise 1.0

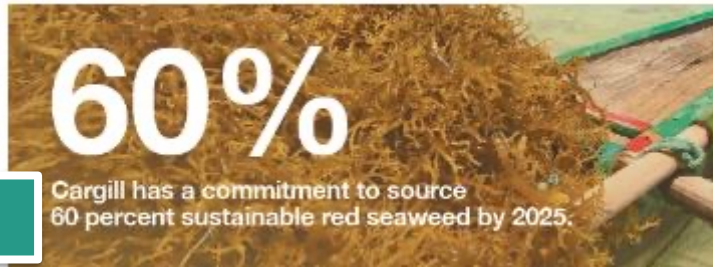
Cargill Red Seaweed Promise

Verification criteria (standards)
co-developed by Cargill & Proforest

Single site global mass balance system for our volumes from sustainable sourcing

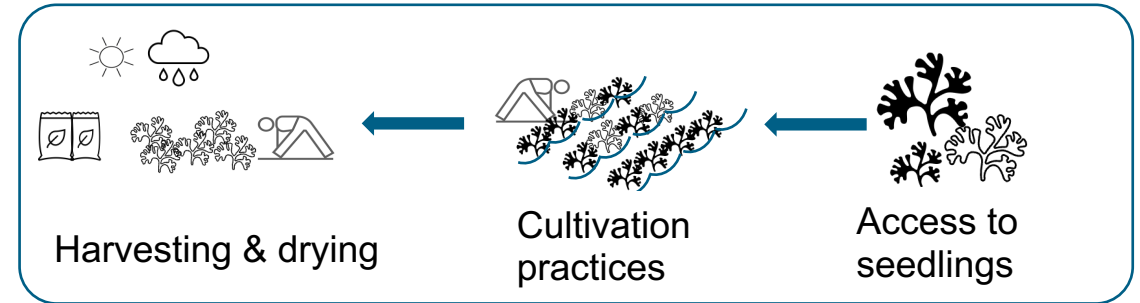
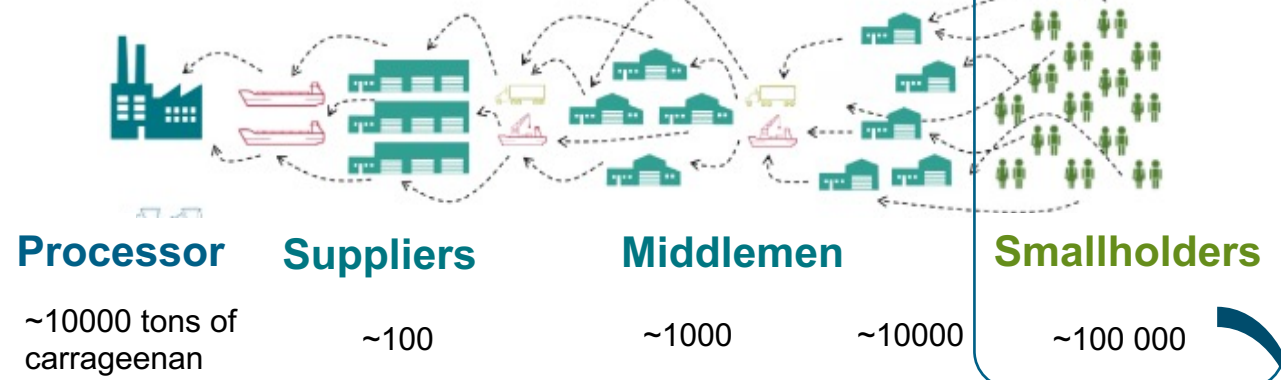
Recommending continuous improvement projects for our suppliers

Supplier and producer audit verification completed by Proforest



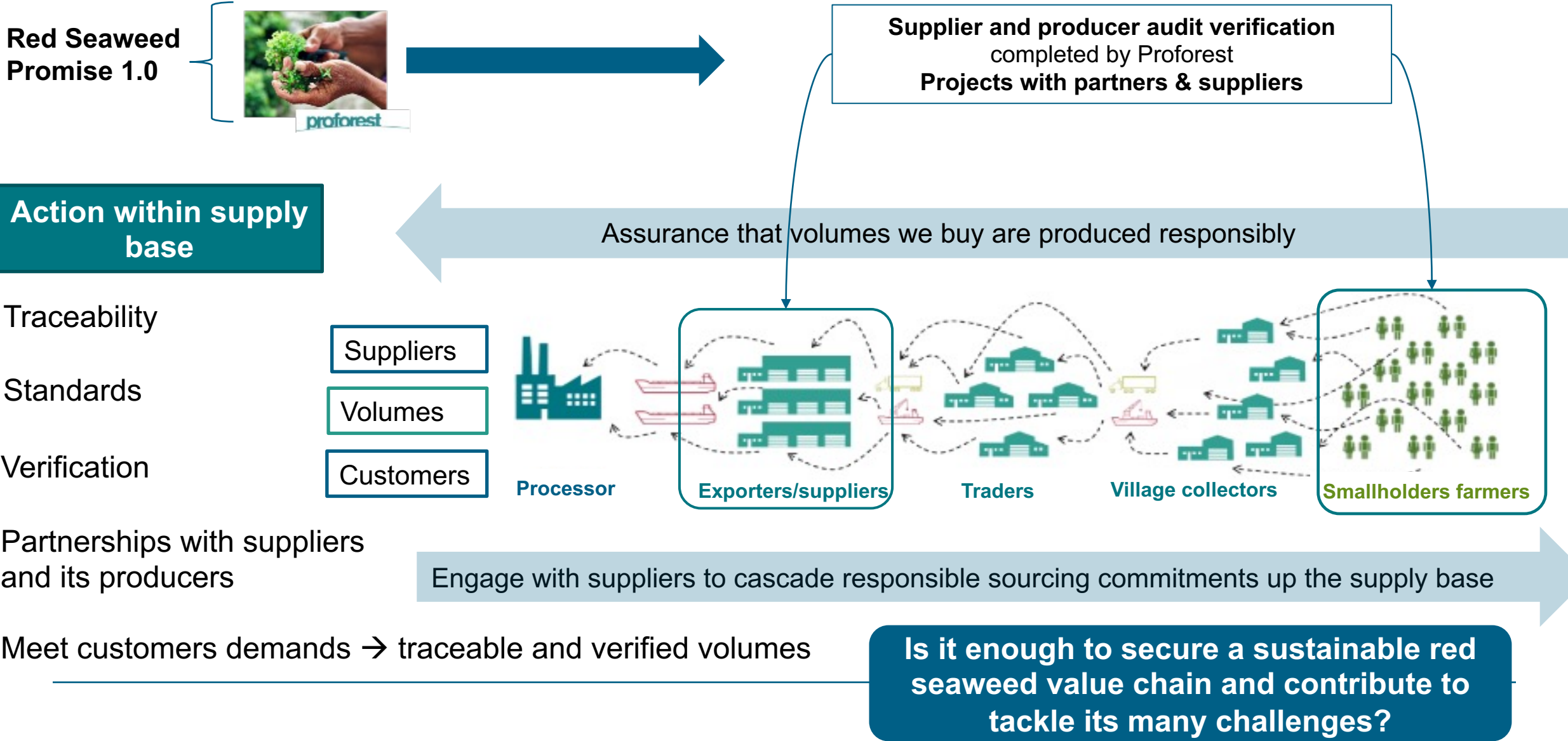
Today: 50%

A Complex Value Chain



<p>Informal activity Unbalanced value chain, & risk supported by the most vulnerable</p>	<p>Non efficient & artisanal practices, opportunistic activity Price volatility</p>	<p>Loss due to diseases & pest, extreme weather events, caused by climate change</p>
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Red seaweed Promise 1.0: An approach within the supply base



Significant sector challenges

Eucheumatoids case

- Produced mainly in South-East Asia
- Main cultivars originated from the Philippines
- Vegetative reproduction
- Easy to cultivate
- Short cultivation cycles (30-45 days)

Seaweeds

Lack of resilient strains (climate change / diseases), lack of varietal selection and agronomic development



Farming Practices

Poor basic non efficient and non-sustainable farming practices

Farmers

Low social & economic resilience of SW culture: remote communities often struggling in a poverty context

Value chain

Informal & unbalanced business network: poor traceability, price volatility, unfair incomes

Regulatory

Lack or poor local, national or international regulatory framework

Marine planning, environmental assessments, biosecurity, management of crop genetic resources, ...

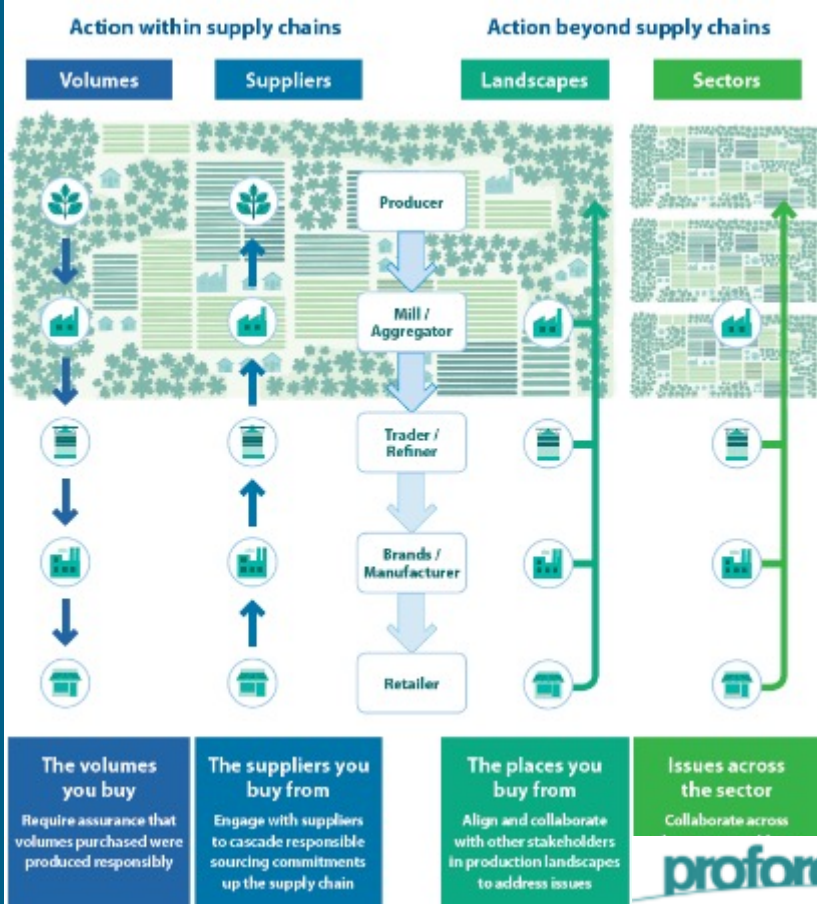
Value chain non resilient against climate change or socio-economic shocks



- Poor regulation of farming activity – individual right to use the sea
- Opportunistic activity – cash crop for remote & poor communities
- Lack of significant investment on the production

Red Seaweed Promise 2.0

WITHIN & BEYOND
OUR SUPPLY BASE



Red Seaweed Promise 2.0

Vision : 100% of the seaweed sourced will be to RSP 2.0 standard by 2030

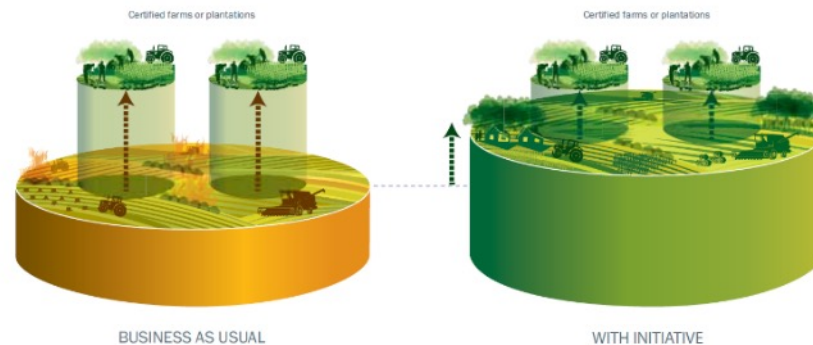
Mission statement: At Cargill, we aim to source the highest quality of red seaweed and in doing so, we want to ensure that it provides seaweed producers with an attractive livelihood and that it preserves marine habitats

Our Approach: Implement transformative projects Within and Beyond the Value chain

In partnership: With our selected suppliers because of their strong commitment on the developing a sustainable business for them and the smallholders they work with

Action within supply chain

- Volumes we buy
- Suppliers we buy from

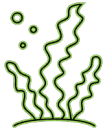


Action beyond supply chain

- Places we buy from
- Issues across sector

Source : Proforest Briefing 03: Implementing responsible sourcing – using landscape initiatives

Red Seaweed Promise 2.0



Product



Goal 1. Seaweed production is stable, sustainable and attractive from producers to processor

- Healthy and productive seaweed strains
- Traceability
- Climate change mitigation plans



People



Goal 2. Red seaweeds producers are resilient against economic & environmental impacts

- Fair price and living income
- Health & Safety
- Inclusive support to thousands of smallholders



Planet



Goal 3. Farming practices have positive impacts on the environment

- Best practices
- Seaweed Ecosystem Services

