4th Oceans Forum on trade-related aspects of Sustainable Development Goal 14:

A shift to a sustainable ocean economy: Facilitating post-COVID-19 recovery and resilience
Seaweed farming – a way for sustainable growth

Helena Abreu
Seaweed farming & SDG

- Provides the 4 ecosystem services
- Safe, traceable and high-quality Food, Feed, and Raw-material
- Preserves the wild seaweed populations & creates new habitats
- Bioremediation of N and P
- Reduce GHGs replacing edible & raw-materials with larger carbon footprints
- No freshwater, no fertilizers*
- Does not compete with land for other food crops
- Source of protein, fiber and a contribute to fight nutrition deficiencies
- It can be integrated with other marine farming | leisure activities
- Provides Jobs and Education opportunities, independent from genera, across the globe but mostly in less developed areas
34.7 million tons seaweed

- Pharma
- Functional Food & Feed
- Cosmetics
- Food
- Feed ingredients
- Plant biostimulants
- Commodities & the new biomaterials (Alginate, Carrageenan, Agar)

97% of production
10 of 46 LDCs

Billion UDS

- 2018: 14.1
- 2023: 21.1

Markets and Markets, 2020
Seaweed farming

+ Top source of “blue food” (38%)

+ Job creation:
  
  • 1 per 2 dry ton (ALGA+)
  
  • 1 per 10 dry ton (WorldBank estimates)

+ At sea and near/on-shore

  • Also with IMTA at commercial scale

Over 450 edible seaweed!

- Size
- Chemical composition
- Production systems
- Value
1g of Seaweed a day....

MACROALGAE
Macro and micronutrients, antioxidant & anti-inflammatory compounds, etc...

Adapted from Cornish et al. 2017
What about Seaweed?!
Products
The Secrets of Long Life

Sustainable Diets:
“...low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations...protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources”.


Kame Ogido, 89, a resident of Okinawa, holds a handful of edible seaweed. The Japanese island is defined by the author as a “Blue Zone,” where people live longest.
Women take the lead
Education | Literacy

- At school & businesses
- All generations
- Between countries | cultures
R&D and Knowledge transfer

- Agriculture & Marine Agronomy
- Asia & “Newcomers”
- All with LDCs
- Biology, Technology, Product Development
CREATING A SUSTAINABLE FOOD FUTURE BY 2050

How do we feed 10 billion people...

WE WILL NEED

TO FEED NEARLY

10B people in 2050

56% more food

2010
2050

...without using more land...

WE NEED TO PREVENT AGRICULTURE FROM EXPANDING

we currently use ~50% of the world’s vegetated land for agriculture

TO SAVE AN AREA OF FORESTS NEARLY 2X the size of India

2010
2050

...while lowering emissions?

WE CAN LOWER EMISSIONS

12 Gt CO₂
-67%

2010
4 Gt CO₂
2050

WITH INNOVATIVE TECHNOLOGY LIKE

Improved feeds

Plant-based burgers

Resilient crop breeds

Source: wri.org/sustfoodfuture
35,000,000 tons of seaweed & more to come...

A unique global “blue food” and raw-material

Education & Transfer of knowledge

Solid R&D and accurate info to attract long term investment & results
SEaweeds In A CHanging WORLD

24TH INTERNATIONAL SEAWEED SYMPOSIUM

19 - 24 FEBRUARY 2023

Hobart | Tasmania | Australia | Online
Thank you!

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