

Seaweed cultivation and legislation

Dr. Anu Lähteenmäki-Uutela
Dr. M Teresa Camarena Gómez
Finnish Environment Institute

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Projects

GRASS (SUBMARINER network)

Build capacity on macroalgae cultivation/harvesting and use among public authorities and other relevant stakeholders

Funding: European Union, Interreg Baltic Sea Region 2019-2021

SUSCULT

Focus on seaweed cultivation as a Blue Growth opportunity in the Northic region.

Funding: Nordic Working Group for Oceans and Coastal Areas GOAL

Goal of our study: to understand how the entrepreneurs and authorities see the challenges with the **macroalgae cultivation licensing**

Main tasks:

- SUSCULT: cultivation experiments in 2020 and in 2021
- GRASS-SUSCULT: regulatory analysis in the Nordic and Baltic countries, together with GRASS project

Projects: countries involved in our study

GRASS

Finland: Finnish Environment Institute,
University of Turku

Sweden: KTH Royal Institute of Technology,
Uppsala University

Estonia: University of Tartu, Ministry of the
Environment

Latvia: Latvian Institute of Aquatic Ecology,
Kurzeme Planning region

Germany: Submariner Network EEIG

Poland: National Marine Fisheries Research
Institute

Russia: Baltic Fund for Nature

SUSCULT

Norway: University of Agder

Denmark: Technical University of
Denmark

Iceland: University Centre
of the Westfjords

+ **Finland, Sweden, Estonia**

Main EU regulations relevant for seaweed cultivation

- Maritime Spatial Planning directive
 - Marine Strategy Framework Directive
 - Water Framework Directive
 - Alien Species Regulation
 - Habitats Directive
 - Environmental Impact Assessment Directive
 - Organic Food Regulation
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National government perspectives and efforts

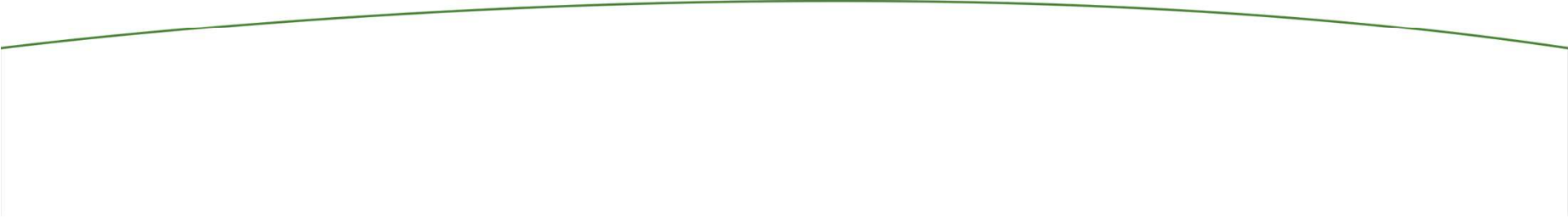
- **Finland:** need for water law permit only
- **Sweden:** roundtable, the need for clear regulation and procedures has been recognized
- **Denmark:** nutrient offsetting possible
- **Norway:** dozens of cultivation permits
- **Iceland:** new Act on its way to allow seaweed cultivation
- **Germany:** algae roundtable: research, industry and politics

Analysis: government perspectives in the Nordic and Baltic countries

Macroalgae are interesting for all Nordic and Baltic countries

- No laws on macroalgae cultivation: general environmental and water law + general procedures for aquaculture apply

Regulatory attitudes vary:

- nothing to regulate (yet)
 - seeing macroalgae as **business**
 - seeing macroalgae also as **environmental protection** (nutrient offsetting)
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Perspectives of other countries (outside the Nordics and the Baltics)

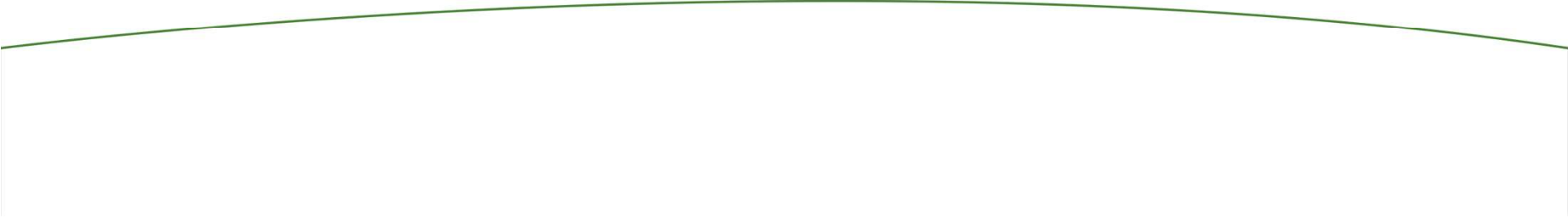
France: a list of authorized seaweed species concerning seaweed aquaculture

Scotland: Seaweed Cultivation Policy Statement (SCPS)



Regulatory issues of seaweed cultivation

Case study-Survey

- A. Difficulties of the companies to apply/obtain the license = **SURVEY/INTERVIEW -companies**
 - B. Licensing from the authorities perspective = **SURVEY/INTERVIEW -authorities**
 - C. Obtain **pair-survey answers** (company-authority) from the same country.
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Regulatory issues of seaweed cultivation

A. SURVEY-companies: contacted (30)/replied in green (9)

- **Norway:** Artic Seaweed, Austevoll Seaweed Farm, Lofoten Blue Harvest AS, Leroy Ocean Harvest AS, Ocean Forest AS, Seaweed AS, Seaweed Solutions AS, Tango Seaweed AS, Tarelaks AS, The Northern Company, Norway Seaweed AS, HORTIMARE
- **Denmark:** Dansk TANG, Pure Algae, Tofteladen-Laeso Tang, Nordisk tang, Hjarno Havbrung, OMO TANG, Organic seaweed-ebeltoft vig, Maki seaweed (Greenland), Ocean RainForest (Faroe Island).
- **Other countries:** Origin by Ocean (Finland), KosterAlg (Sweden), EstAgar, Vetik OÜ, Tinurek OÜ (Estonia), Kieler Meeresfarm, OceanWell (Germany), Eldey Aqua/Djúpið, Thorverk (Island), Archangelsk Seaweed Factory (Russia)

Regulatory issues of seaweed cultivation

A. SURVEY-companies

Question: *Did you encounter any difficulties in obtaining the license? If yes, what was the main obstacle in your opinion?*

Comments from companies:

- 1. Ocean Forest AS / Lerøy Ocean Harvest AS (Norway):**
“Understanding of what seaweed cultivation really is”
 - 2. Danks TANG (Denmark):** *“Coastal Directorate do not understand seaweed”*
 - 3. Origin by Oceans (Finland):** *“Approval processes in Finland do not recognize seaweed cultivation”*
 - 4. EstAgar (Estonia):** *“Main reason is Estonian law and failure of the authorities to act effectively”*
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Regulatory issues of seaweed cultivation

SURVEY-companies: main findings (9 companies)

Application period: 9 months to 4/5 years

Main problems:

1. the lack of knowledge of the authorities on the potential of seaweed
2. no specific European legislation exists for seaweeds aquaculture (several regulations and recommendations apply)

Solution: identify what it is macroalgae cultivation and separate this aquaculture activity from fisheries





Nordic Council
of Ministers



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Finnish Environment Institute

Anu Lähteenmäki-Uutela

Teresa M. Camarena Gómez

anu.lahteenmaki-uutela@syke.fi

teresa.camarenagomez@syke.fi

Finnish Environment Institute