

Miljøvurderinger: *generelle principper og monitoring* + formål med ASuReMacro

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Fiskaaling

Agenda

- The ASuReMacro project
- Environmental Impact Assessment (EIA)
 - The general framework
- Baseline Studies Programme

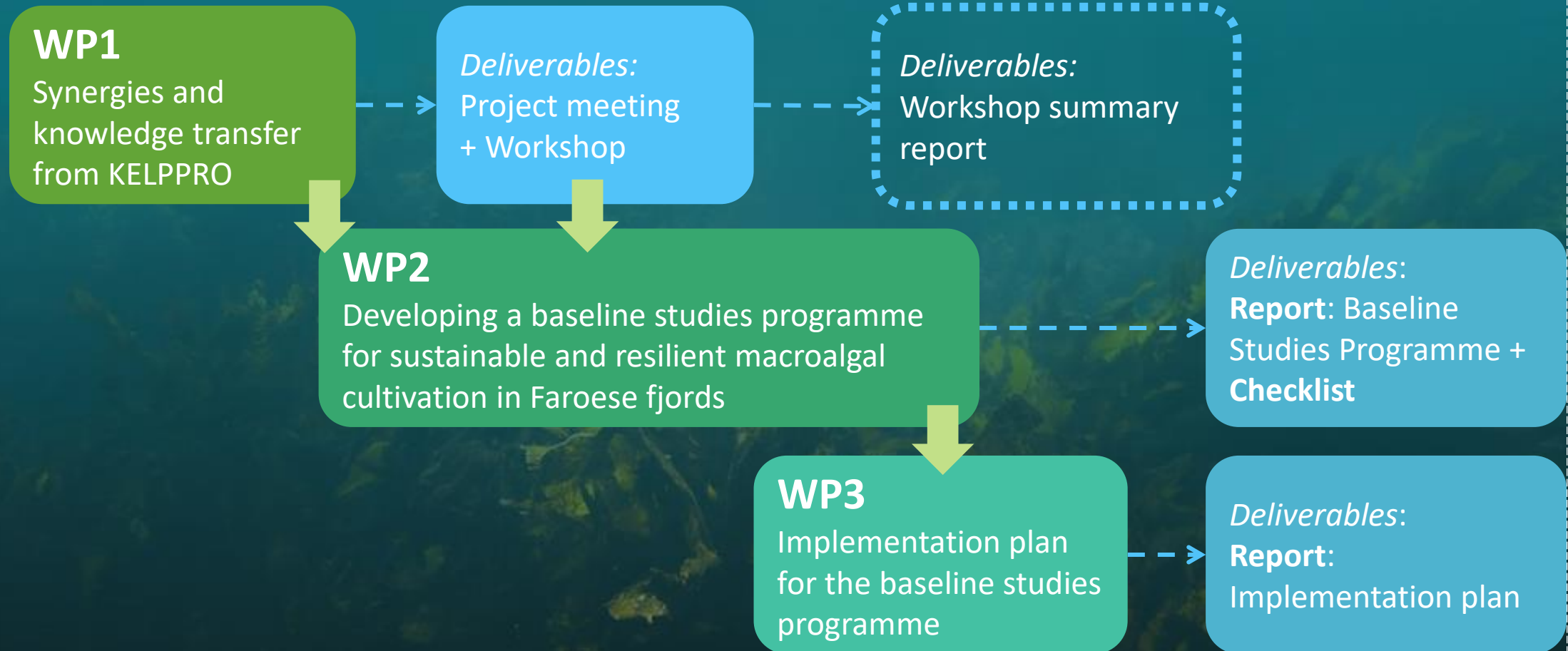
ASuReMacro

A Sustainable and resilient macroalgal cultivation industry in the Nordic and Arctic region

- funded by the Nordic Council of Ministers
- Started Dec 2022 – finishes Dec 2023
- Partners from:
 - Fiskaaling
 - Aarhus University
 - Norsk Institutt for Vannforskning
 - Tari Spf.

ASuReMacro

December
2023

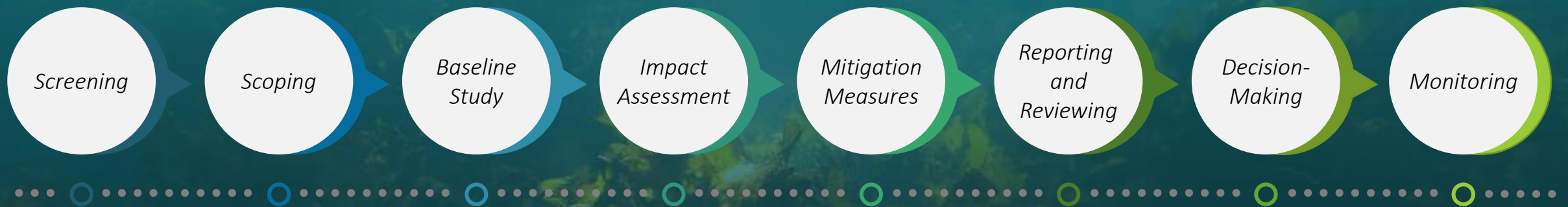


Environmental Impact Assessment (EIA)

“The overarching purpose of an Environmental Impact Assessment (EIA) is to outline the environmental consequences of a project for the proponent and authorities, the public and eventually decision makers.”

Arctic Environmental Impact Assessment (EIA) project

General framework of an EIA



General framework of an EIA



Screening precedes the EIA to determine if the project is to undergo an EIA or not

Usually determined through regulatory requirements

Screening



The content and the extent of the EIA is defined.

Describes the project, and identifies potential impacts and possible alternatives that are to be included in the assessment.

Scoping



Baseline data is needed for assessing the impact

Existing data is used in the scoping but baseline data is supplemented during the assessment

Baseline Study

Generally baseline studies are more easily prepared in countries where technical expertise and organised environmental databases are readily available.

Im
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Involves the prediction and evaluation of impact.

Includes the prediction of the magnitude, the probability of occurrence and the extent of the potential impact.

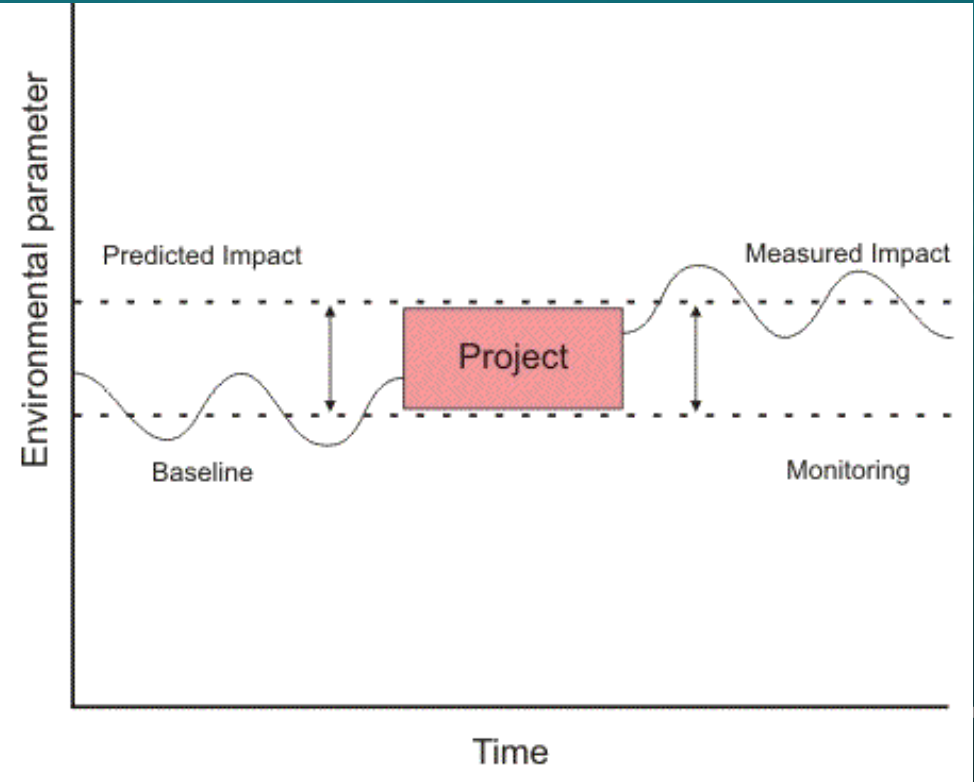
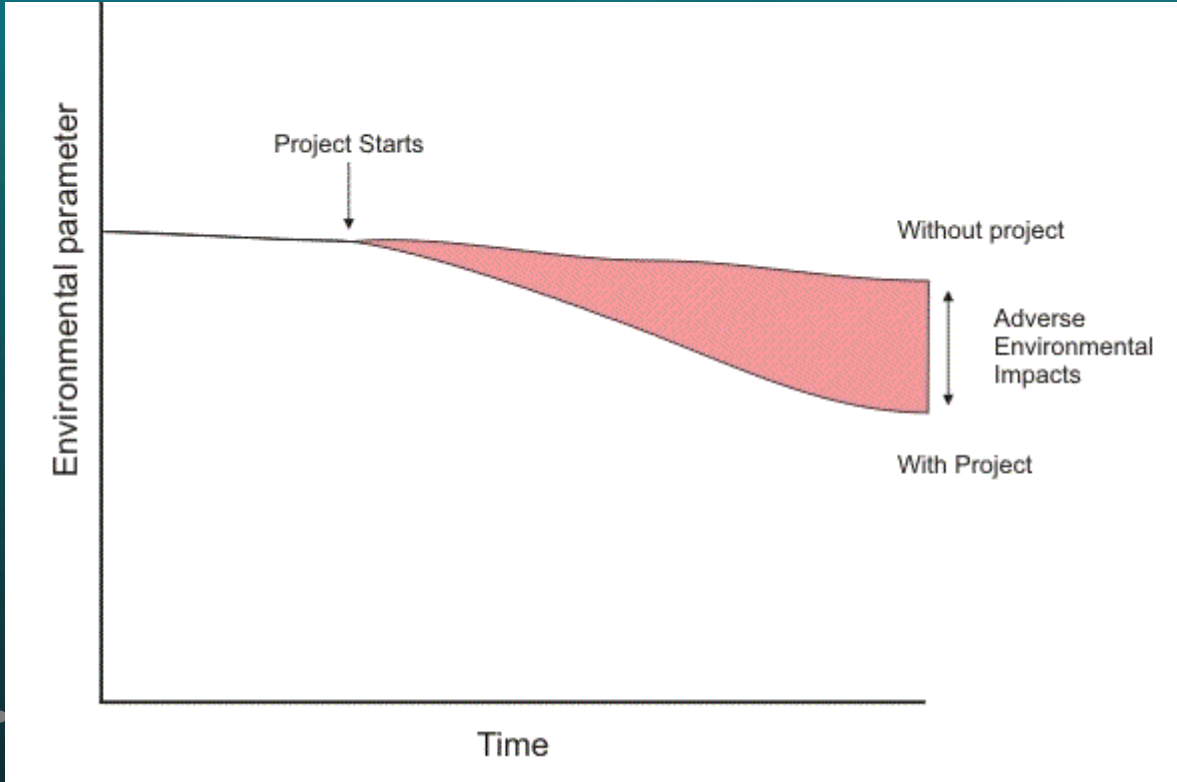
→ Eventually defining their significance.

Impact Assessment

Usually the most technical step

Baseline Study

Impact Assessment



Mitigation aims to avoid, minimize, mitigate or, as the last step, compensate for the negative impact of the project.

Potential positive impacts are promoted during this step.

Mitigation Measures



EIA report compiles the analysis of assessed impacts and the description of the public participation throughout the process.

Reporting and Reviewing

During the reviewing phase, the adequacy of the issues addressed are assessed.



The outcome of EIA is considered in decision-making and this consideration is documented in decisions.

The final decision is usually made by an official (or committee) of the relevant government ministry.

Decision-Making



Monitoring is planned during the EIA, but eventually determined in the permitting phase.

Monitoring is not a compulsory EIA step in all jurisdictions.



Monitoring

General framework of an EIA



ASuReMacro WP2

Baseline Studies Programme Report will include:



Possible environmental effects ?

NIVA
HERSTY FORNEUING
RundeMiljosenter

RAPPORT L.NR. 72&5-2018

Taredyrking - mulige miljøeffekter, synergier og konflikter med andre interesser i kystsonen



Taredyrking er en viktig del av kystsonen, men det er viktig å være oppmerksom på mulige miljøeffekter, synergier og konflikter med andre interesser i kystsonen. Dette rapporten undersøker disse aspektene og gir anbefalinger for hvordan man kan håndtere disse utfordringene på en bærekraftig måte.

frontiers
in Marine Science

REVIEW
published: 22 March 2019
doi: 10.3389/fmars.2019.00167

The Environmental Risks Associated With the Development of Seaweed Farming in Europe - Prioritizing Key Knowledge Gaps

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Cultivation of kelp has been well established throughout Asia, and there is now growing interest in the cultivation of macroalgae in Europe to meet future resource needs. **If this industry is to become established throughout Europe, then balancing the associated environmental risks with potential benefits will be necessary to ensure the carrying capacity of the receiving environments are not exceeded and conservation objects are not undermined. This is a systematic review of the ecosystem changes likely to be associated with a developing seaweed aquaculture industry. Monitoring recommendations are made by risk ranking environmental changes, highlighting the current knowledge gaps and providing research priorities to address them.** Environmental changes of greatest concern were identified to include: facilitation of disease, alteration of population genetics and wider alterations to the local physicochemical environment. Current high levels of uncertainty surrounding the true extent of some environmental changes mean conservative risk rankings are given. Recommended monitoring options are discussed that aim to address uncertainty and facilitate informed decision-making. Whilst current small-scale cultivation projects are considered 'low risk,' an expansion of the industry that includes 'large-scale' cultivation will necessitate a more complete understanding of the scale dependent changes in order to balance environmental risks with the benefits that seaweed cultivation projects can offer.

Keywords: seaweed, aquaculture, environment, ecosystems, risks

SEAWEED PRODUCTION ACROSS EUROPE

Throughout the world, high demands on many natural resources necessitates the development of alternate resources to produce important commodities such as food, feed, fuel, cosmetics, and pharmaceuticals. The development of large-scale seaweed aquaculture in Europe has the potential to play an important role in meeting future resource needs, but must do so in a manner that does not undermine the use and value of existing marine resources.

Frontiers in Marine Science | www.frontiersin.org | 1 | March 2019 | Volume 6 | Article 167

HAVFORSKNINGSINSTITUTTET

MILJØPÅVIRKNING FRA DYRKNING AV MAKROALGER

Risikovurdering for norske farvann

Kjetil Magnus Nordhaug, Pål Kjelvik Hansen, Stein Fredriksen, Bjørn Einar Grøsvik, Lars-Johan Naustvoll, Håring Steen og Fritjof Møy (II)

RAPPORT FRA HAVFORSKNINGEN NR. 2021-24

National Science Challenges

SUSTAINABLE SEAS
Ka ngā moana whakauka

Stocktake and characterisation of Aotearoa New Zealand's seaweed sector: Environmental effects of seaweed wild-harvest and aquaculture

Clark DE, Newcombe E, Clement D, Magnusson M, Lawton RJ, Glasson CRK, Major R, Adams S

November 2021

Report

Possible -/+ environmental effects

