

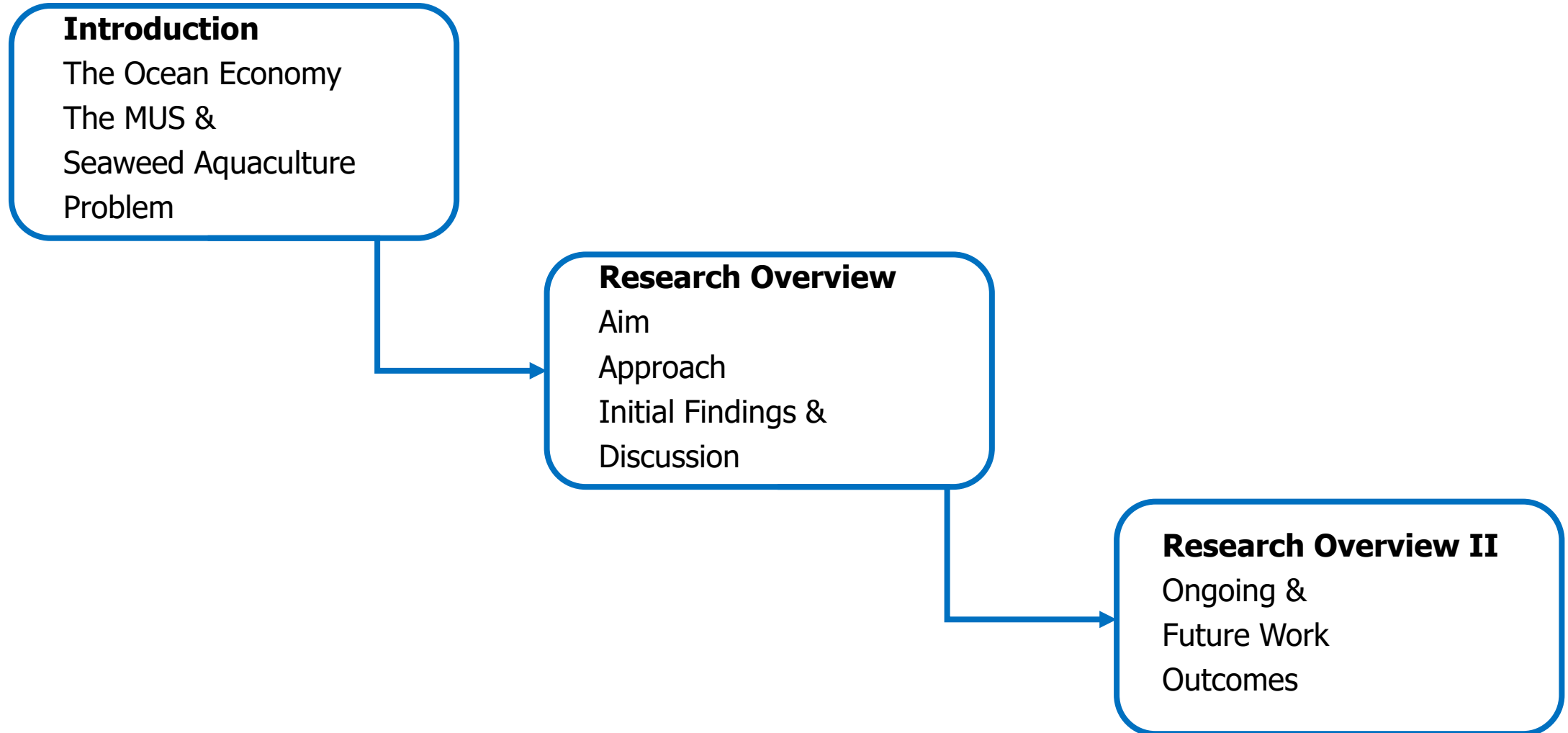
WATERWORLD 2: INVESTIGATING THE CONSEQUENCES OF COMBINING SEAWEED AQUACULTURE WITH WIND FARMS

RYAN O'SHEA

ALEX COLLINS AND CAROLINE HOWE



FORMAT



Introduction- Tomorrow's Ocean Economy

- The Ocean Economy is anticipated to reach \$3 trillion value by 2030 (HM Government, 2018)
- New and old players occupying the ocean(s) for Marine Resource use
- Increased competition among Stakeholders is expected (Hodgson et al, 2018)

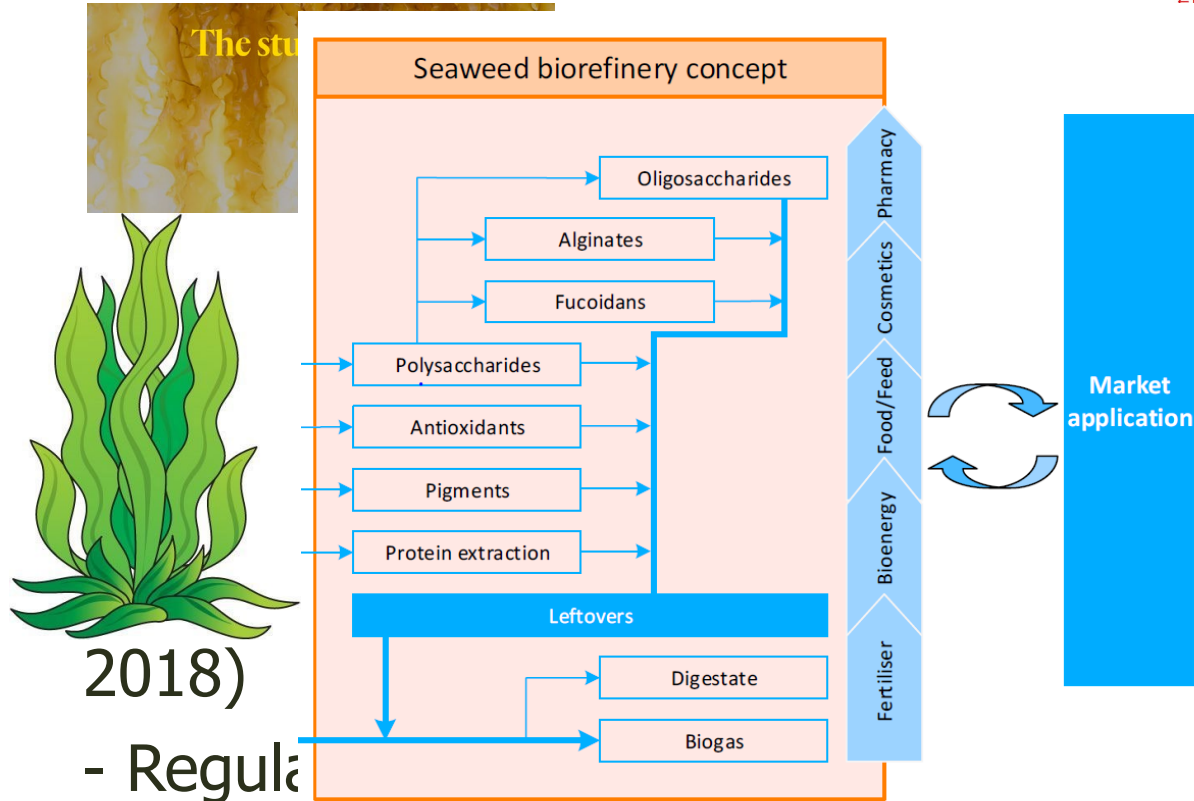


Introduction- Offshore Multiuse Setting and Seaweed Aquaculture



Why??

Introduction- Seaweed Potential



2018)

- Regulation
- Creating habitats for marine life
- Provisioning of Biomass

(Balina et al, 2017)

TIME 2030
← BACK TO HOME

roduction
ages 1-15

ck for energy and
through a Life Cycle

Alvarado-Morales ^c✉, Irini Angelidaki ^c✉,

ocean acidification

Seaweed is the new corn

Will macroalgae be the 21st century's new staple crop?

HOME ABOUT GALLERY NEWS EVENTS CONTACT

SEAWEED BIOGAS PROJECT

PROCESS FOR THE GENERATION OF SUSTAINABLE ENERGY

FIND OUT MORE

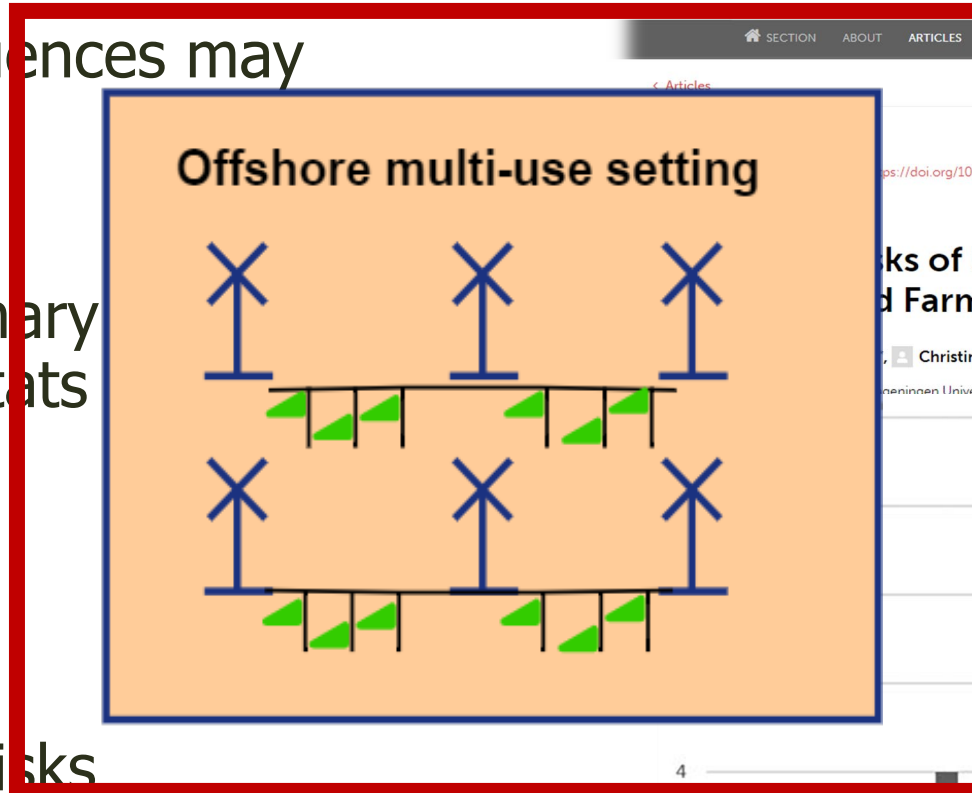
VIEW PARTNERS

PROCESS WHICH USES SEAWEED FOR THE GENERATION OF BIOGAS THROUGH ANAEROBIC DIGESTION

Introduction- Concerns and Uncertainty

Negative consequences may occur

- Decreasing primary productivity and existing habitats
- Avian mortality
- Human health risks

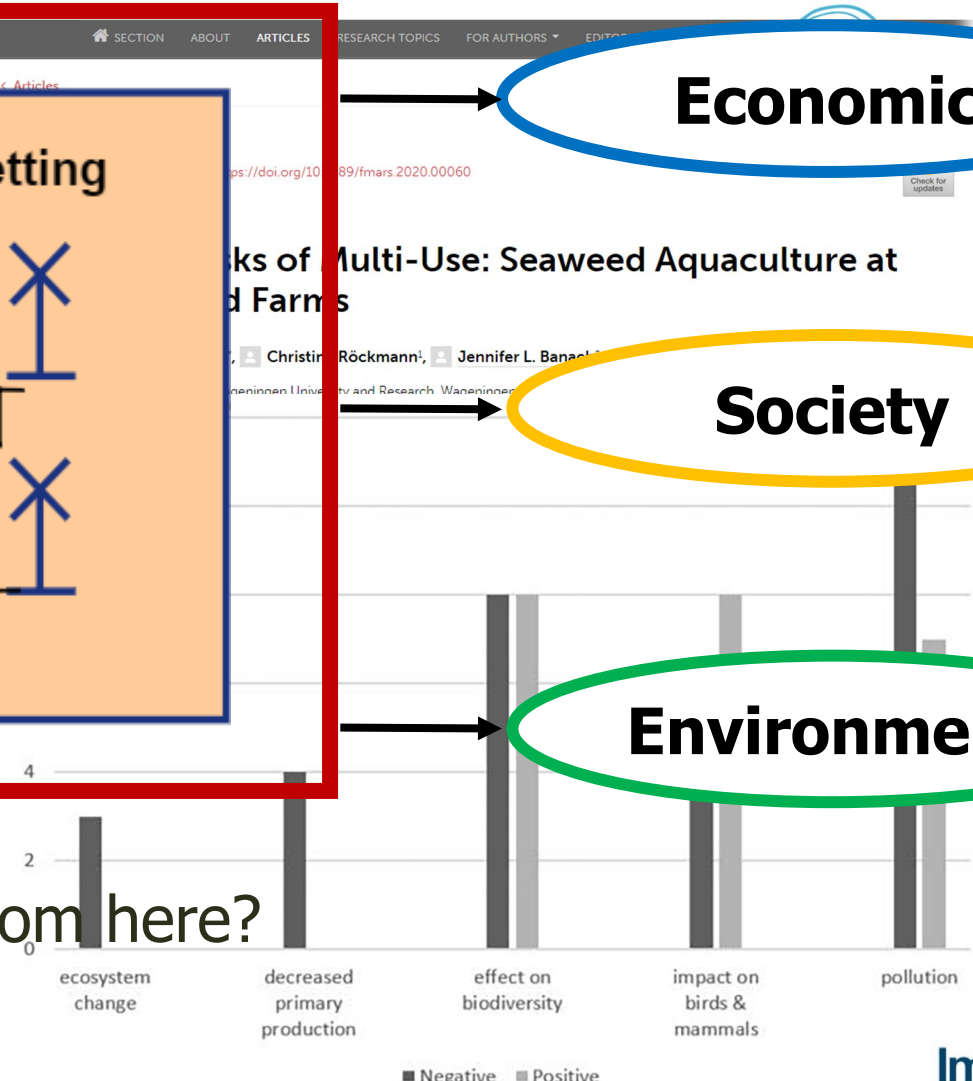


Economic

Society

Environment

Where do we go from here?



**RESEARCH
OVERVIEW:
AIM & APPROACH**

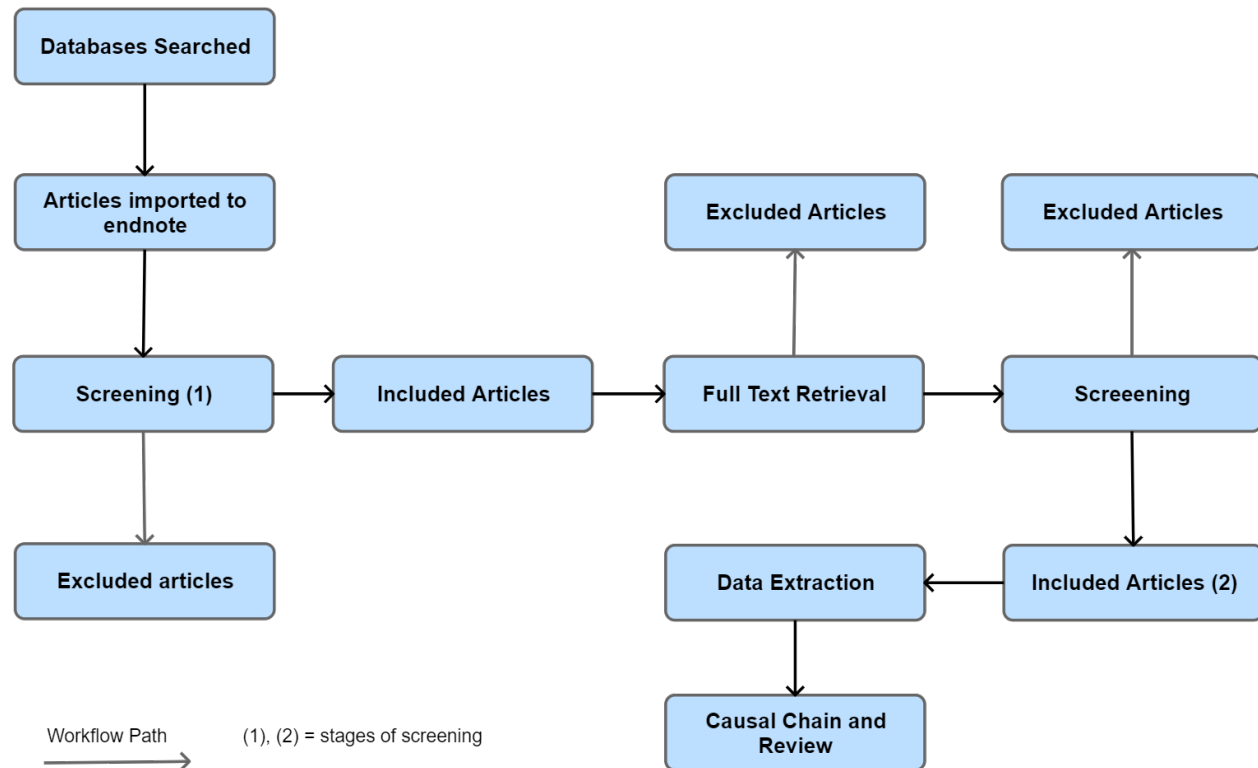
To investigate the consequences-positive and or negative- of promoting seaweed aquaculture inside Wind Farms

Integrative Assessment and Modelling Approach

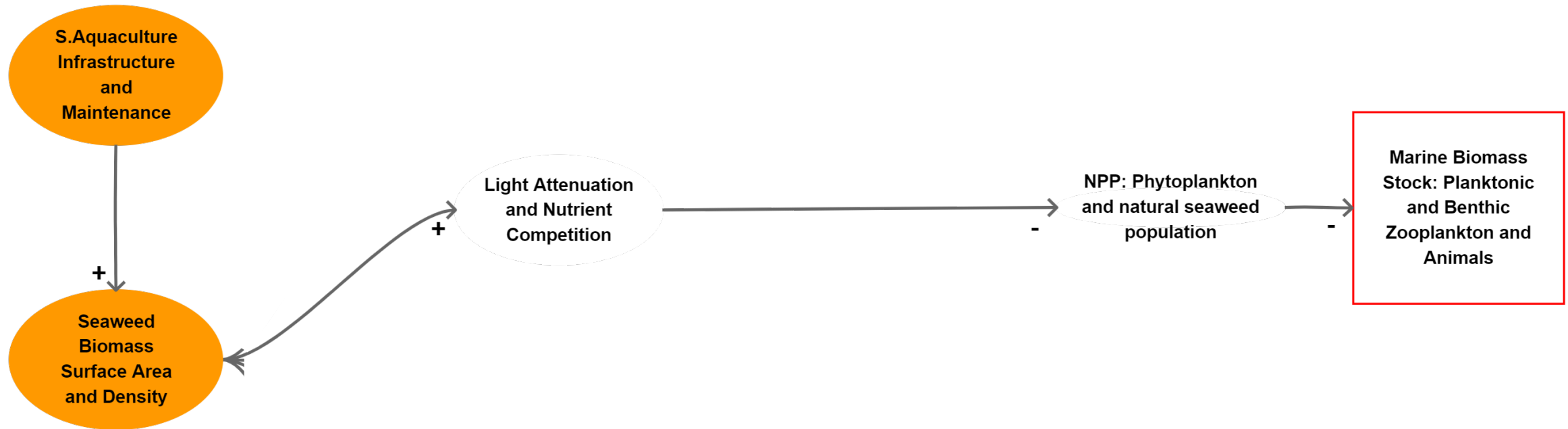
Mixed Method: qualitative to quantitative



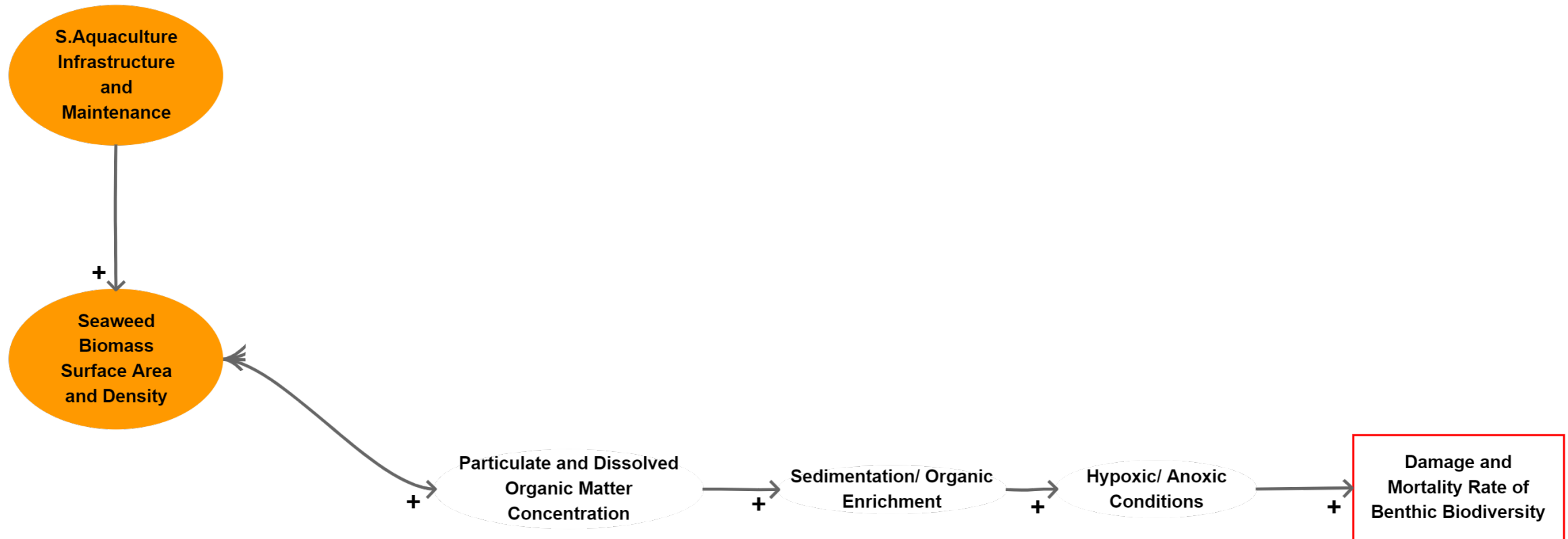
Research Overview- Method One



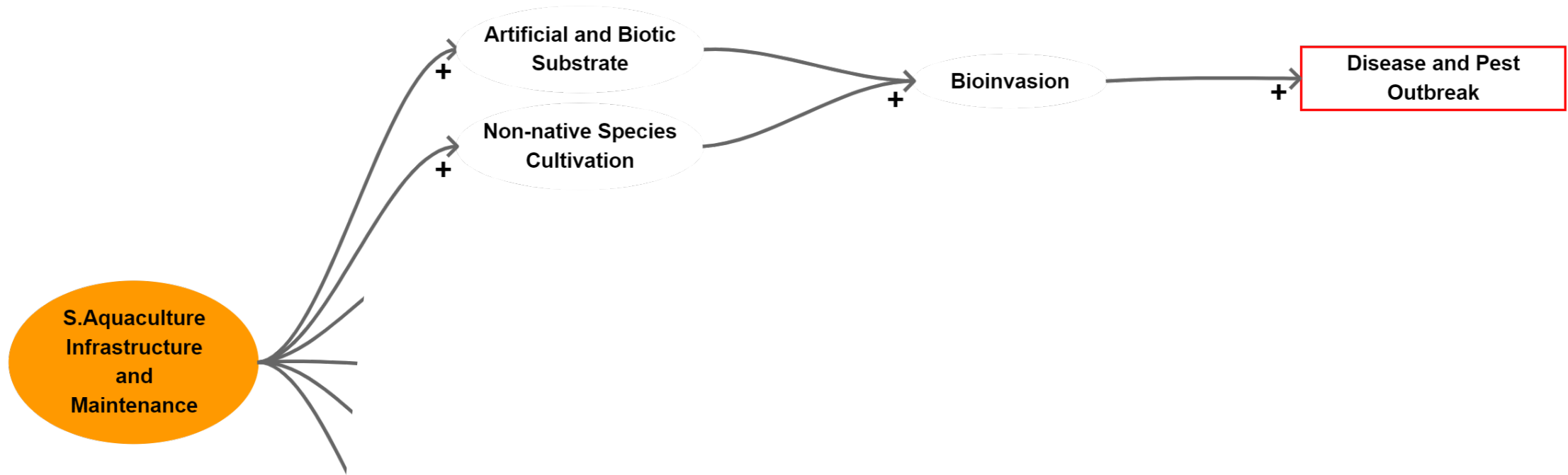
Research Overview- Initial findings



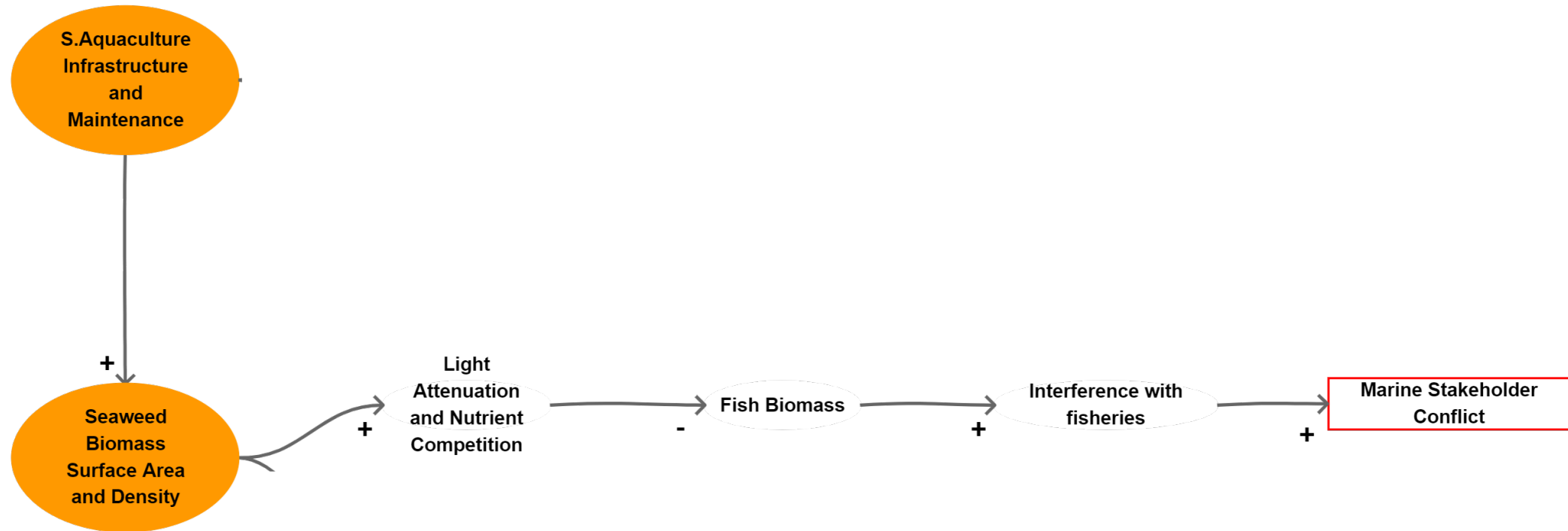
Research Overview- Initial findings



Research Overview- Initial findings




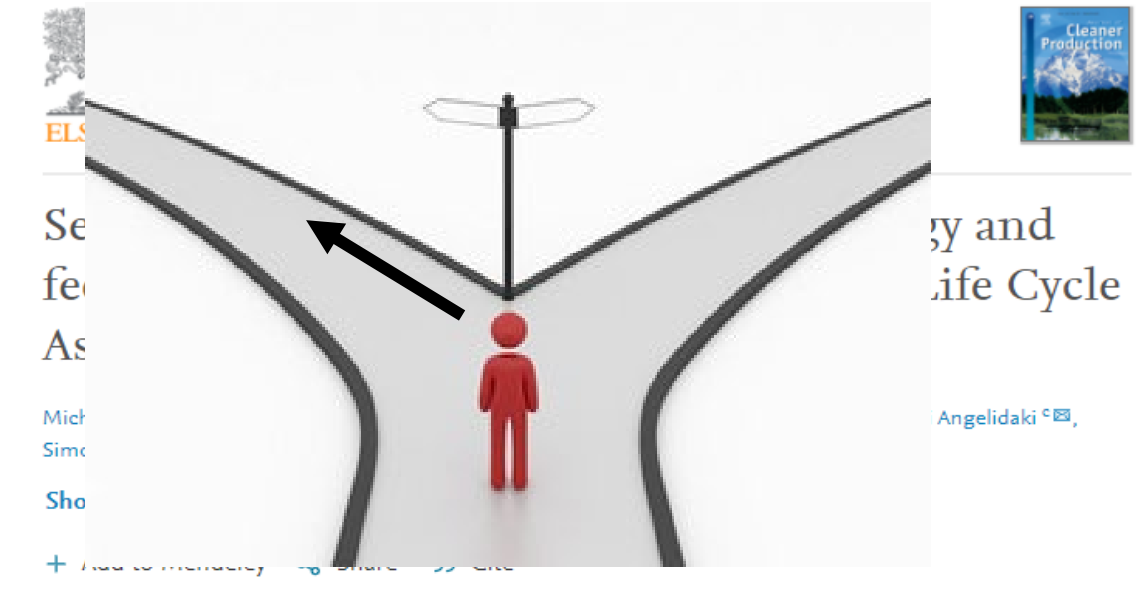
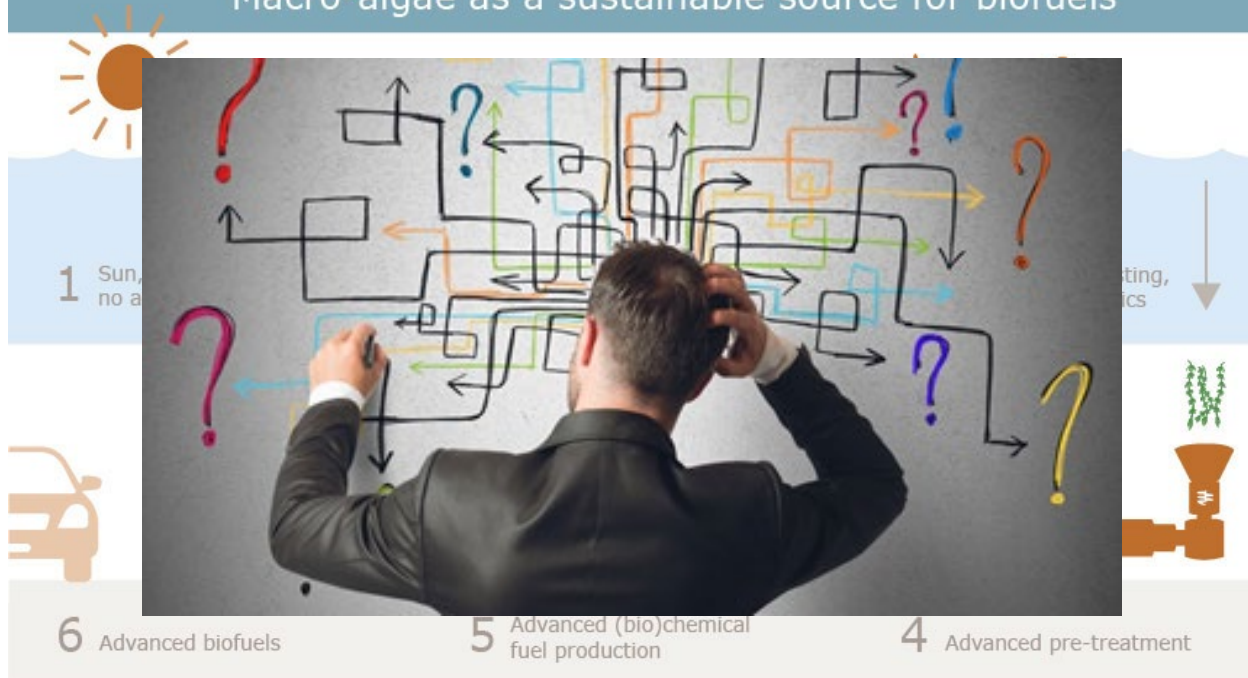
Research Overview- Initial findings



Research Overview- Discussion

Macro-algae as a sustainable source for biofuels

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Models and management need further social, economic and ecological consideration

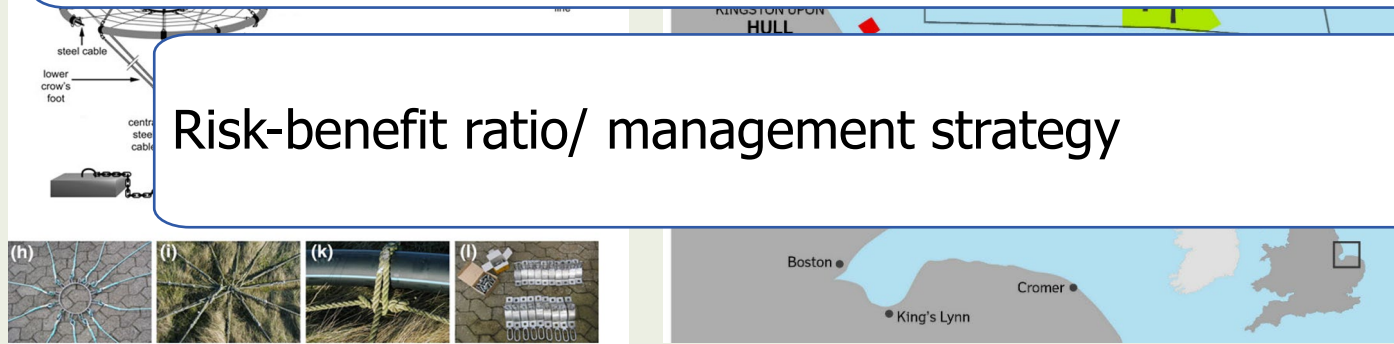
Research Overview- Ongoing and Future Work

Group-based cognitive models of consequences across dimensions

Probabilities of events

Simulation

Risk-benefit ratio/ management strategy





S E A W I L D

MACROALGAE AT SCALE

[READ MORE](#)

THANKS FOR LISTENING