

# CoastShift: Knowledge for a green transition in sustainable food production in the north

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Coastal areas worldwide are important for land and seafood production but also support large global populations and high biological productivity. Northern coastal Norway is an important food producing region that is also undergoing rapid changes related to climate and increased pressure on natural ecosystems. Climate change has brought on green shift policies, seeking to achieve net-zero CO<sub>2</sub> emissions by 2050 whereas blue growth strategies promote economic development in food and energy production, while aiming to protect the environment and ensuring social sustainability. The CoastShift project brings together researchers in sustainability, social, and political-science, indigenous studies, and marine and terrestrial ecology, from nine research institutes in northern Norway. The project has set out to develop and communicate relevant knowledge for a green shift in northern coastal sustainable food production.

In the first year of this 5-year research project, the development of green transition and blue growth future scenarios for coastal northern Norway are underway. Scenario development is based on the goals of the EU taxonomy and an assessment of drivers, barriers and factors that contribute to the green shift. Innovative technologies involving circular economy systems will play a role in achieving sustainability in food production, therefore we are analysing how new technologies and practices in food production can contribute to sustainable development. Improved sustainability in coastal food production will need to minimize the risk of negative effects on the coastal ecosystem. An integrated ecosystem risk assessment is being conducted to compare the cumulative effect of human pressures on the terrestrial and marine ecosystems today and under future green transition future scenarios. The sustainability of scenarios will be further assessed through an inclusive sustainability assessment on the coastal municipalities in Northern Norway through co-producing indicators for environmental, social, cultural, and economic sustainability. Finally, CoastShift will examine how current management frameworks in important food producing industries can promote or inhibit increased sustainability. The project aims and results will

be presented while taking a special focus on elements related to green transition trajectories in northern coastal Norway, circular economy innovations to achieve sustainable food production, and assessment of the impact of trajectories and innovations on environmental and social sustainability.