



Norwegian
Environment
Agency

The Oslofjord: From deterioration to improvement

Action plan for the Oslofjord

25th September 2024

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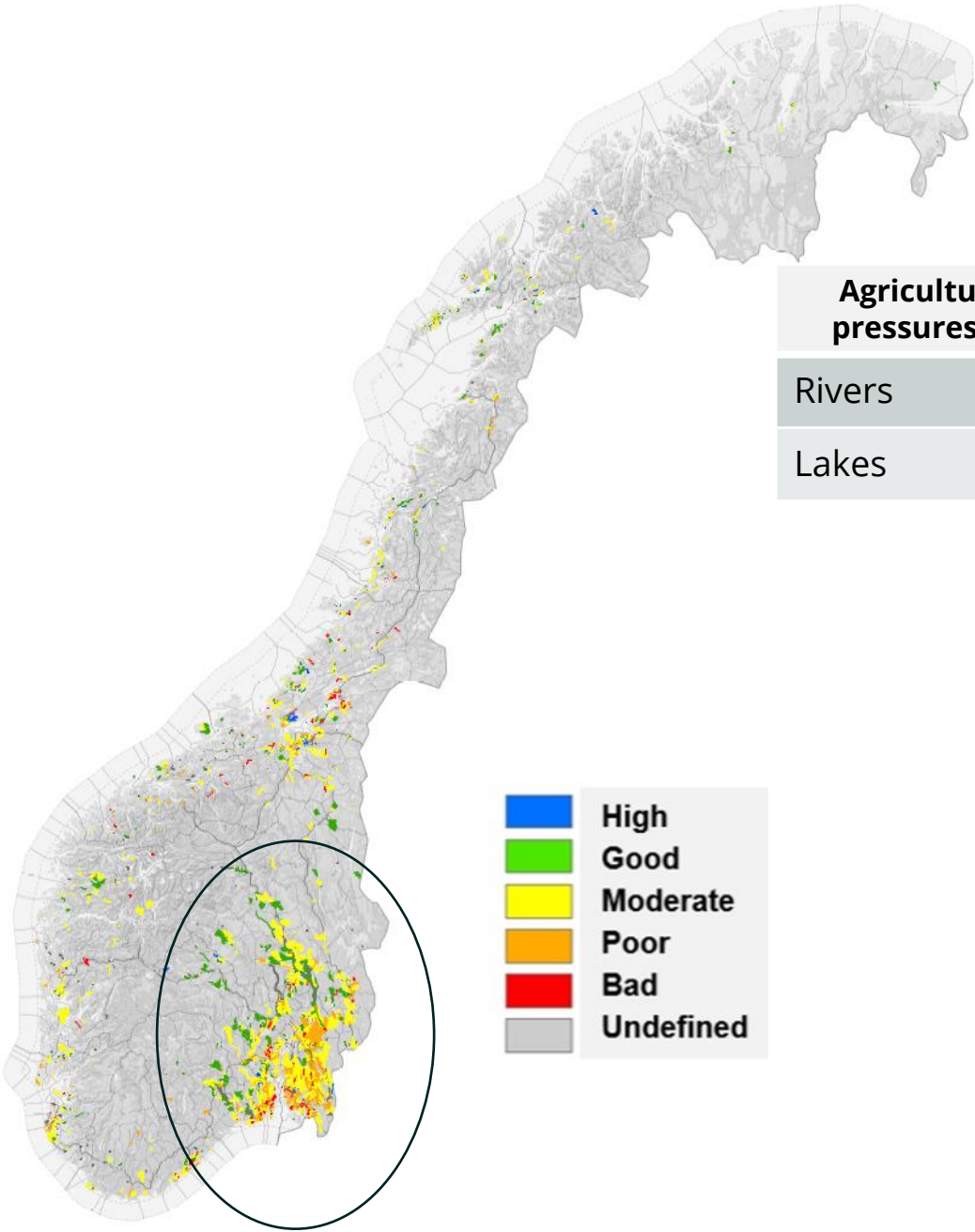
Content

- Background
- Challenges in the Oslofjord
- The Action plan
- Measures and results



Photo: Kim Abel, Naturarkivet

Eutrophication status in rivers and lakes with pressures from agriculture and scattered sewage



Agricultural pressures on	High	Good	Moderate	Poor	Bad	Total	Less than good
Rivers	31	483	1404	461	192	2571	2057
Lakes	4	74	250	63	27	418	340

Vann-nett mars 2022, i Menon Economics 2022



Background





STORTINGET

Vedtak 575

Stortinget ber regjeringen legge oppnå god miljøtilstand, restaurere biologiske mangfoldet i fjorden



1990 | 2019

Forslag til helhetlig plan for Oslofjorden

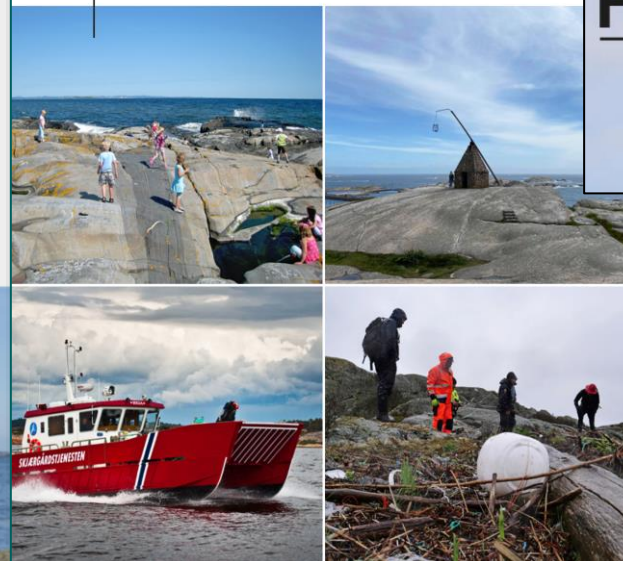
Ren og rik Oslofjord med et aktivt friluftsliv



Klima- og miljødepartementet

Tiltaksplan

Helhetlig tiltaksplan for en ren og rik Oslofjord med et aktivt friluftsliv



Hurdalsplattformen

FOR EN REGJERING UTGÅTT FRA ARBEIDERPARTIET OG SENTERPARTIET

2021-2025



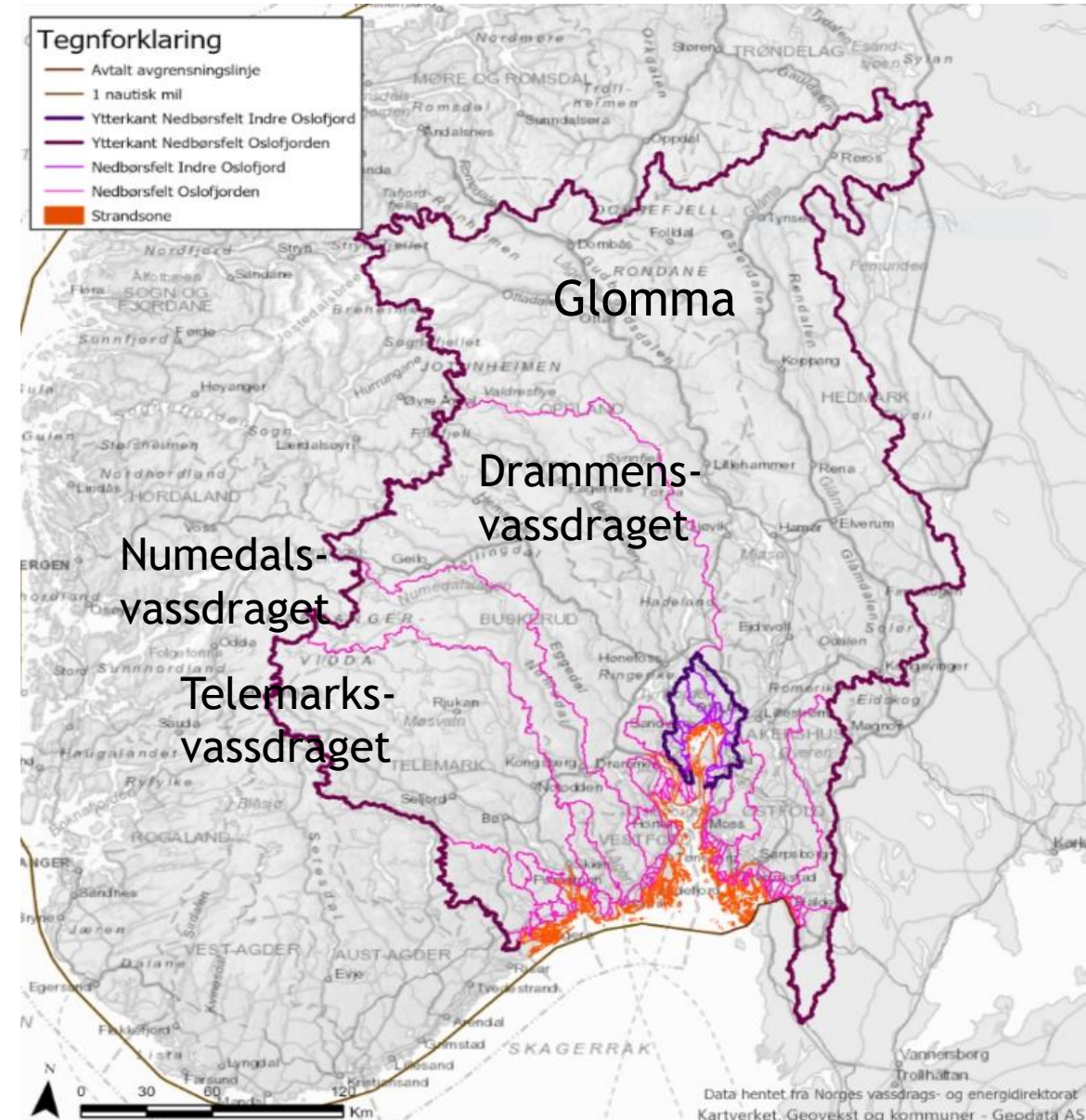
Challenges in the Oslofjord



Facts

- 20 % of Norway's land area
- 50 % of the Norwegian population lives in the catchment area
- 118 municipalities
 - 26 municipalities with a coastline
- 63+19 measures in the plan
 - In correspondance with the water management plans in this region
- 23 sectoral authorities responsible

Catchment area - Oslofjord, 4 big rivers



Environmental problems

- Overfishing: Lowest population of cod since 1950
- «Lurv» (filamentous opportunistic algal species) taking over eelgrass-beds, seaweed and kelp-forests
- Open areas of the fjord with oxygen-depletion
- Darker and warmer waters
- Dietary advice due to high levels of toxins in seafood (fish, crabs)
- 2/3 of the coastal zone is privatisised

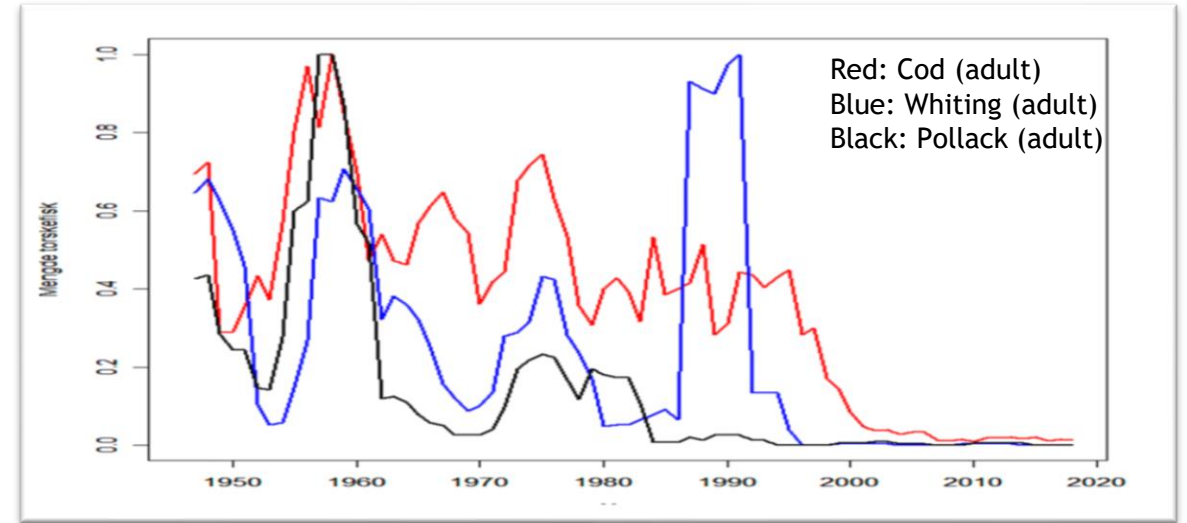


Figure: Havforskningsinstituttet

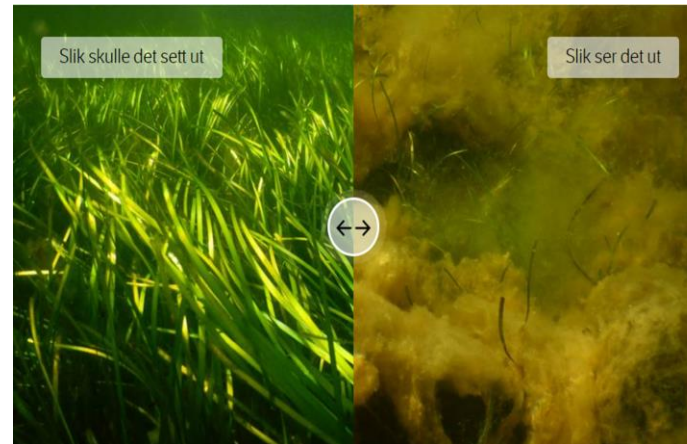


Photo: NIVA (kollasj av NRK)



Photo: VG

Nitrogen in the Oslofjord

- Overconcentration of nitrogen, increased sevenfold from pre-industrial times
- Input of nitrogen to the fjord originate from agriculture and wastewater
- Most harmful nitrogen (bio available) originates from:
 - 43 % agriculture
 - 34 % wastewater
 - 14 % background runoff
- Several problem areas, outward fjord is defined as one recipient

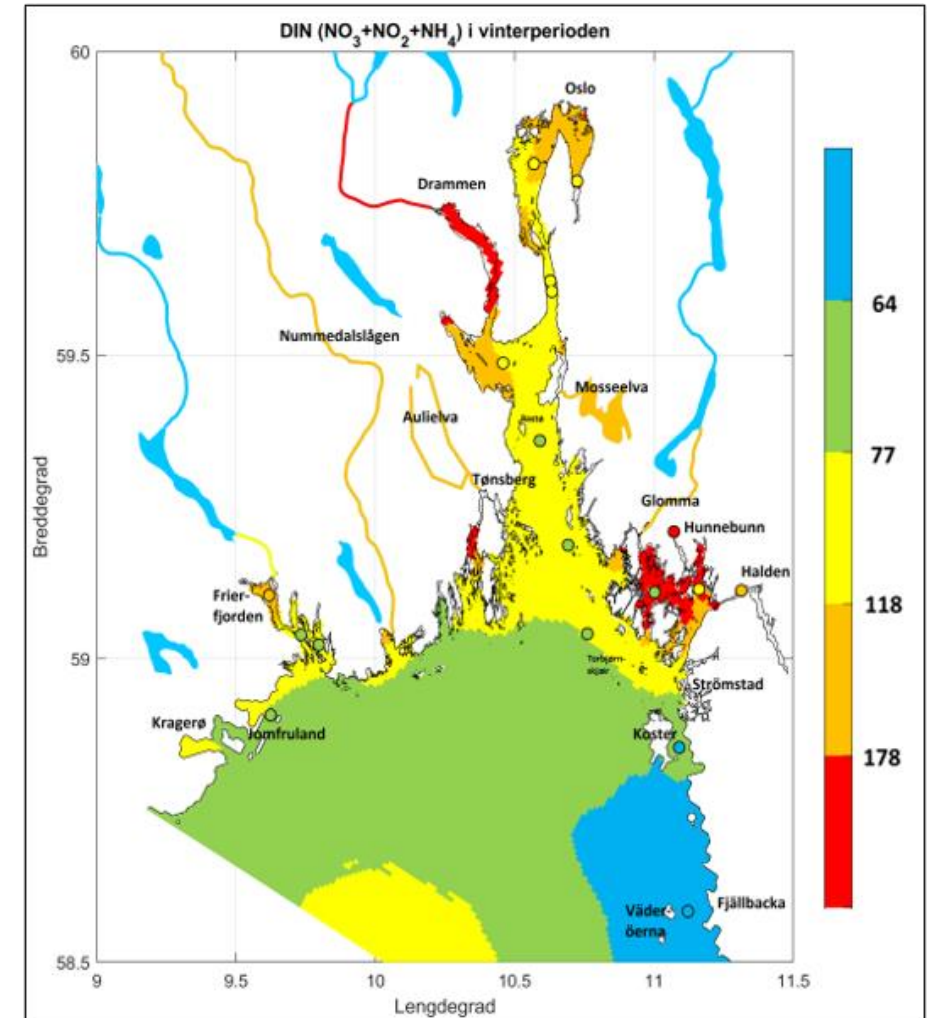


Illustration: NIVA

NB: Based on swedish classification values



The Action plan 2021-2026



Action plan

- Published 30th March 2021
- Divided in 7 priority issues
 - Priority issues 1-5: Measures to improve environmental conditions
 - Priority issues 6: Measures to improve recreational activities
 - Priority issue 7: Interdisciplinary measures, land use management
- Measure in the plan - Establish an Oslofjord Council



Oslofjord Council

- Members of the Council: Mayors, of municipalities and counties, county governors, representatives from stakeholders (agriculture, fisheries and recreational activities) – 26 in total
- The minister of Climate and Environment chairs the Council
- Meeting twice a year
 - Follow up measures, ensure progress, exchange experiences



Photo: Heidi Ekstrøm

Norwegian Environment Agency – our role in the action plan for the Oslofjord

1) Secretariat of Oslofjord Council

- Coordinate measures to be implemented by sectorial authorities and municipalities
- Annual report about the progress of implementation of the 63 +19 measures

2) Responsible for implementing 23 of the measures in the plan

- Sectoral authority



Measures and results



Main focus

- **Agriculture:**

- Environmental regulations have been implemented in Oslo/Akershus/ Østfold/ Buskerud counties (2024)
- Similar regulations will also be implemented in Innlandet and in Vestfold/Telemark from 2025
- Grants: 170 mill NOK in 2022/23/24 – environmental measures to protect/improve water
- Revised regulation of the use of fertilizer and manure from livestock – more strict

- **Wastewater:**

- Report 2022/23: Information and guidance
- 2024: Approximately 20 of 50 treatment plants are required to implement extra processes to remove nitrogen from their wastewater
- Grants: 52 mill NOK in 2024, 43 municipalities

- **Coastal management:**

- Measures to avoid specific marine environments (eelgrass, soft-bottom habitats) in municipal spatial planning
- Measures to maintain the building ban in the coastal zone (100 m) in municipal spatial planning

- **Fisheries management:**

- Bottom trawling: Revise existing regulations about trawling in the Oslofjord
- Fisheries control/inspections: Fishing of codfish banned in 2019. Need to have additional controls/inspections
- Further measures to tighten existing fisheries management (commercial fishing and recreational fishing)



Key measures

Tabell 3: Oppsummering av nøkkeltiltak med antatt tidligst gjennomføring, og effekt i Oslofjorden etter gjennomføring (evt. forsinket effekt)

Nøkkeltiltak	Antatt gjennomføring (tidligst)	Vurdering av effekt i Oslofjorden	Vurdering av fremdrift	Flaskehals/kommentar
Etablere nye avløpsanlegg med nitrogenfjerning (T1, T7)	Fra 2026	Rask effekt	😞	Kravstilling og planlegging/ Kostnadskrevende
Redusere mengden overvann og overløp, og oppgradere ledningsnett (T2, T3, T4)	Før og etter 2026	Rask effekt	😞	Kostnadskrevende
Iverksette miljøkrav i regionale forskrifter etter jordlova (T8)	Fra 2024	Relativt rask effekt	😞	
Forvalte tilskuddsmidler slik at avrenning fra jordbruksarealer til vann reduseres (RMP og SMIL) (T9)	Fra 2022	Rask effekt	😊	
Håndheve krav om vegetasjonsbelte langs vassdrag, samt øke tilsyn med opprettholdelse av vegetasjonsbeltene (T12, T13, T14)	Fra 2024	Rask effekt	😞	Politisk beslutning (flytte myndighet)
Revidere gjødselvereforskriften (T10)	Fra 2024	Forsinket effekt	😞	Politisk beslutning
Vurdere nærmere regulering av eksisterende trålingsaktivitet i Oslofjorden (T21)	Fra 2025	Forsinket effekt	😞	Politisk beslutning
Sikre viktige naturforekomster i sjø (T24, T25)	Fra 2024	Rask effekt	😞	Politisk beslutning
Strengere praktisering av byggeforbud i strandsonen (T59)	Fra 2024	Rask effekt	😞	Politisk beslutning
Etablere kystsonenettverk og juridisk bistand til kommunene (T37, T41)	Fra 2022	Rask effekt	😊	

Conlusions

- The Oslofjord – bad ecological status, unbalance in the ecosystem
- Efficient and simultaneous measures are needed
 - Reduce input from agriculture and wastewater
 - Restore fish populations (predator fish – cod), introduce zero-fishing-areas, reduce impact from bottom trawling
 - Avoid further coastal development in shallow waters, important grazing and growing areas for small fish and birds
- Measures will not be implemented within 2026
 - Many measures are in process
 - Will take time
 - Will be costly
- OPTIMISTIC – it is possible!

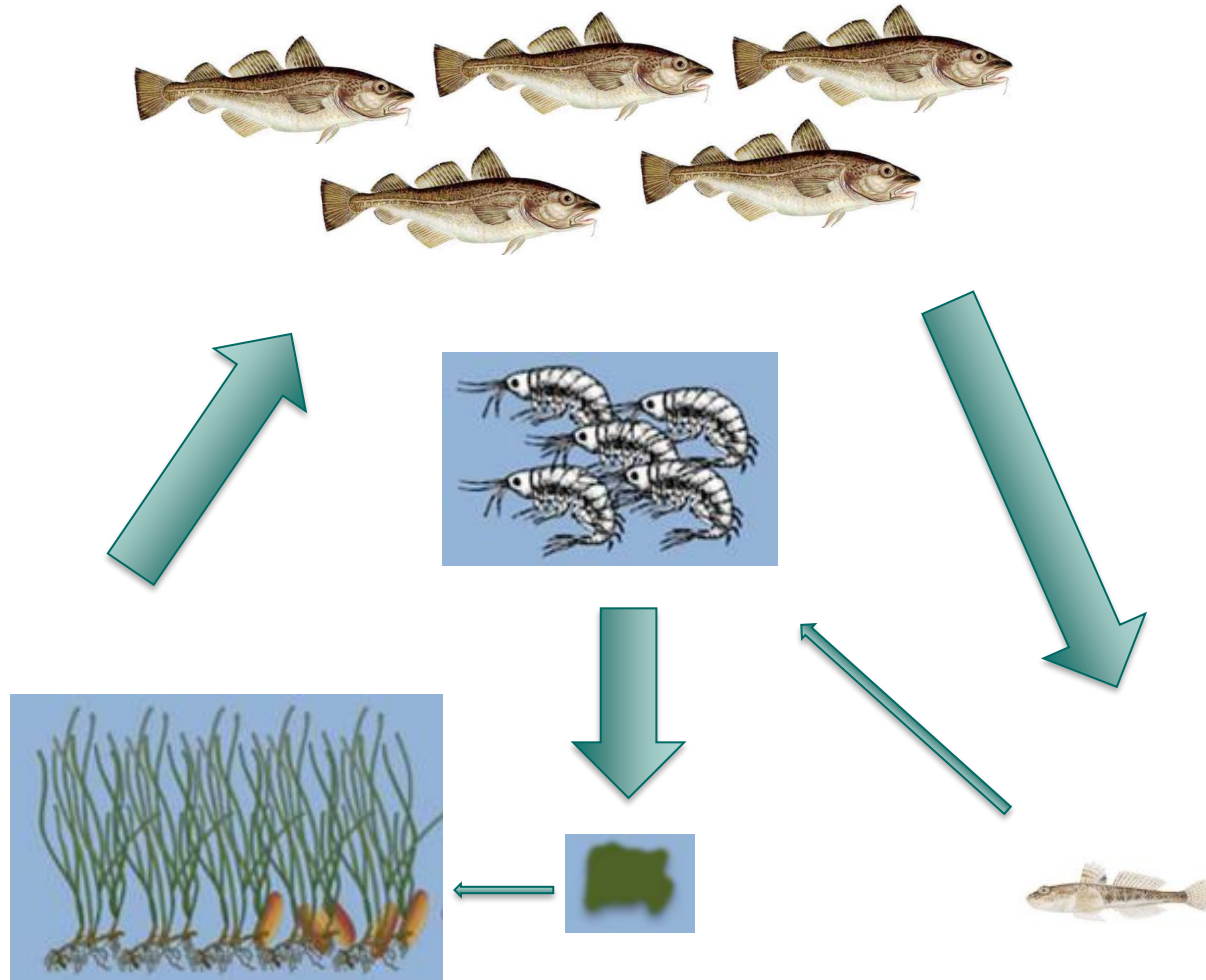




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Økologiske domino-effekter (omarbeidet fra Moksnes et al. 2008 og Infantes et al. 2016)

Fungerende økosystem



Økosystem i ubalanse

