

Norwegian sea urchin stakeholder workshop – Nofima/NIVA Report

Date/times: Tuesday 3rd Oct (09:00am- 17:00pm)

Location: Forskningsparken (Oslo)

Introduction

This was a combined workshop between the EU URCHIN project funded by the Northern Periphery and Arctic Program (coordinated by Nofima) and the ECOURCHIN project funded by Framcenter (coordinated by NIVA). The workshop was titled '**Possibilities and pitfalls in the development of a sea urchin industry in Norway**'. The aim was to determine '*why Norway does not have an established sea urchin fishery and what are the effects of the potential industry on ecosystem services and socio-ecological system including the economic and associated kelp ecosystem restoration benefits of establishing such a fishery*'. The workshop brought together different stakeholder groups who are interested in developing a sea urchin industry, ecosystem restoration and ecosystem services from kelp recovery in Norway. The workshop theme is directly linked to blue growth and sustainable marine resource management in Norway. In addition, the core aim of the URCHIN project is to '*Enable SME's, Government agencies and local government to develop urchin fisheries in remote areas of the NPA through increased innovation and transfer of new technology in remote sparsely populated areas*'. And the core aim of ECOURCHIN is to provide a knowledge base for a sustainable urchin harvesting in the north and study the effects of the industry on kelp restoration, coastal ecosystem services, and socio-ecological system. The benefits of ecosystem restoration and ecosystem services were described in terms of kelp and ecosystem recovery, kelp recovery and values of ecosystem services including the increased value in cod fishery, potential carbon storage value from recovered kelp forests and value for supporting services provided by kelp forest. The Workshop agenda are in Appendix 1 below. Attendees at the meeting included SME's, representatives of large business, Research Institutes, Higher Education Institutes, Government regulatory bodies and funding bodies (see list of attendees in Appendix 2).

Session one: 09:00 – 12:30

Current projects & Research and examples of successful urchin industries:

After a welcome and general introduction, NIVA and Nofima presented the aims, activities and outcomes of the ECOURCHIN and URCHIN projects respectively. A presentation of the funding opportunities available from the Norwegian Research Council followed. URCHIN partners (Matis and Oceans and Fisheries Canada) presented a description of the successful urchin industries in both Iceland and Canada. The benefits of ecosystem restoration were presented in terms of kelp and ecosystem recovery, kelp recovery and the cod fishery and a simulated projection of future kelp forest in the North of Norway was presented. A short general discussion/question session from the morning's presentations was held before lunch.



Session two: 13:30 – 17:00

Developing a sea urchin industry in Norway

After lunch the management and governance issues of a potential urchin industry was presented by Mattelsynet, followed by the opportunities for sea urchin roe enhancement in Norway, presented by URCHINOMICS.

There was then a general discussion based on three key questions:



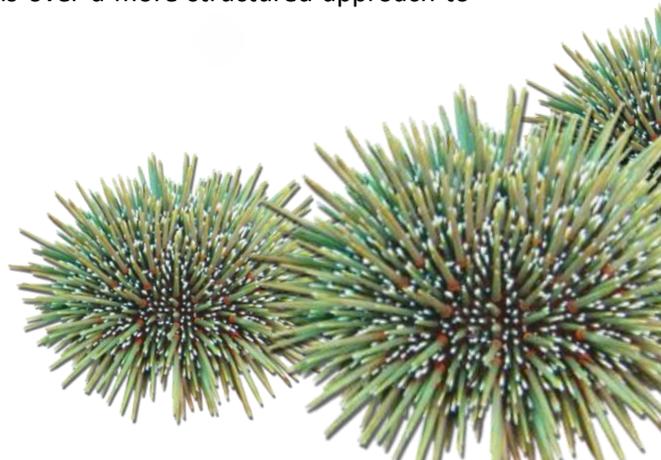
Questions?

- 1. What do you see as the major bottlenecks to the development of an urchin industry in Norway?**
- 2. In your opinion how can these bottlenecks be overcome?**
- 3. How can the benefits of ecosystem restoration be incorporated into an urchin industry in Norway?**

Points raised during the general discussion are as follows:

- Need to stimulate interest in commercial scale harvesting
- Perhaps utilizing other invertebrate fisheries (e.g. whelks)
- The suggestion was made that it may be possible to develop a subsidized system of extracting urchins for environmental benefits similar to free catch area of king crabs
- Transport was seen as a key research area
- Any future projects need to incorporate the 'entire value chain'
- It was noted that it was good to work as a consortium to overcome challenges
- A suggestion was made to identify one Kommuner and apply for funding using that as a benchmark area
- Noted that there is no history of a diverse fishery as there is an many other countries where sea urchin fishing has been successful
- Noted that fishermen are conservative and often don't want to change
- Fisheries laws in Norway can be difficult
- Ecosystem restoration gives good support for any development plans
- Suggestion to get harvesting expertise from other countries
- Discussion around dive fishery for scallops in Trøndelag
- Discussion around the merits of 'quick and dirty' trials over a more structured approach to developing a sea urchin industry in Norway

Actions to be taken following workshop:



- Report from workshop to be produced and disseminated to participating and relevant stakeholders (Nofima)
- A meeting between NIVA/Nofima and University of Tromsø to be conducted to discuss further funding opportunities
- Provide copies of talks (unless requested not to by authors) on the URCHIN project website
- Nofima to investigate the possibility of running ground-truth trials in Tromsø based on habitat and abundance models produced by NIVA in the ECOURCHIN project (Dec/Jan 2017/8)
- Harvesting technique trial utilising novel harvesting technique to be conducted in conjunction with SME (Pure Arctic) in Tromsø in Oct 2017
- Nofima to coordinate sea urchin collection in northern Norway and run transport trials in conjunction with Troika Seafoods and Norway King Crab (Oct/Nov 2017)
- Nofima/NIVA to explore funding options to develop sea urchin industry with Norwegian Research Council and Innovation Norway. Together with SME and other industry partners
- NIVA and URCHINOMICS to run a small land-based sea urchin roe enhancement trial at the NIVA facility in Solbergstrand

Additional:

For full versions of the talks presented at the workshop please go to the URCHIN website www.urchnproject.com

Summary:

- Based on the time and commitment required to build both the Canadian and Icelandic sea urchin industries a step-by-step development will also be required in Norway.
- MUST include the total value chain from seafloor to plate; building knowledge around sea urchin condition (reproductive cycle) and harvesting site selection criteria, harvesting techniques, transport techniques, live holding techniques, roe enhancement techniques, routes to market, transport to market, market opportunities.
- There must be a focus on surveying suitable harvesting areas prior to financial commitment to establish fishing or roe enhancement industries
- Funding opportunities must be explored in relation to both fundamental and innovation/industry research
- Commercial partners are essential to stimulate industry (both small and large)
- SOCIETAL benefits (ecosystem services) MUST be incorporated into long term development of an industry
- Some short term results are required to stimulate interest and development of potential industries

