CHERISH
Interreg Europe

European Union
European Regional
Development Fund

Report on Policy Improvement Aspects of Fisheries Traditional Ecological Knowledge – Examples of European Good Practices

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All report photos: courtesy of Snowchange

Introduction

This report will highlight some of the successful examples from inside Europe, on how fisheries TEK can act in creating new policy relevancy in different regions. It is created for the purposes of co-learning in the Cherish TEK work. At the outset it should be recognized that what is known as TEK today globally has a long history of dismissal as a non-valued way of knowing and being a component of living cultural heritage. TEK has arisen in the past 30 years as a more recognized and valued theme but still remains often unknown and underutilized despite for example UNESCO and other UN progress.

Traditional Ecological Knowledge can be defined in many ways. It is an interconnected whole of practice, experience, values and connections to a local place, often for hundreds of years. For the purposes of this report, in line with other Cherish TEK reports, we use the definition that TEK is: *"the cumulative body of knowledge held by community members due to long affiliations to specific landscapes and generational transmission. The term knowledge refers in this context of fisheries to the way fishing communities know their waters and seas. It is usually expressed in local languages and dialects, including specific terms for fish, weather, sea conditions, waves, currents and placenames"*

It is usually so that wherever there is or has been active and successful small-scale fishery adapted to local environmental conditions, fisheries TEK in its many forms can be found in that region. TEK is often reflected in the placenames and in names of the waterways (i.e. in many cases in the Finnish context a sought after or abundant fish species have given the name for many of our inland lakes and their catch locations). Some of the meanings may have been lost or are hidden from the present population, but in many cases it is still possible to make the connections even between the past practice and the place. TEK is viable, even if the practice may have ended, through the many ways it communicates the essentials of a place, practice and the environment.

In many cases placenames can also act as indicators of change, both direct human induced environmental change such as overfishing and indirect environmental change, such as climate change. Small-scale fishers can also detect first-in-line anomalies in their fishing environment and in the fish itself. Their economical well-being is dependent on sufficient catch within a limited geographical area and that makes them sensitive to all change in their fishing environment.

In the European context there is a growing consumer interest in food culture and local food heritage, sustainability and ethical production of food products. Initiatives such as Slowfood and Slowfish, culinary travel, local fish and fish dish festivals across Europe and the EU geographical indication[1] for specifically produced food products are all examples and outcomes of this interest.

In Europe, many rural regions are struggling to keep their local economies healthy and viable and to create adequate employment opportunities. In many cases promoting sustainable local food production and supporting it as a means to make a living in an area scarce of jobs, can be seen as one solution.

[1] A geographical indication (GI) is a distinctive sign used to identify a product whose quality, reputation or other such characteristics relate to its geographical origin.
https://ec.europa.eu/trade/policy/accessing-markets/intellectual-property/geographical-indications/

TEK is often associated with small-scale fleets even though local examples may vary. Individual transferable quotas (ITQs) often have preferred large operators and fleets as a major policy choice. Emphasis on TEK and small-scale practices as living or near-past cultural heritage related to the maritime areas of Europe may trigger therefore initial disagreements, even conflicts between the sectoral approaches of fisheries, tourism, cultural heritage and management bodies.

This does not have to be the case however. TEK, by its nature, is integrative. It can be sourced to a range of sectors including fisheries, tourism and cultural heritage. Additionally it may have new role to play in assessing and surveying the heath of the sea, the environment and the fish stocks, if properly engaged. TEK is a very positive and policy-relevant subject, even though the emerging stream of work across the continent is in need of rigorous examination, inclusion and piloting.

When positioning TEK in its diverse forms into a dialogue with policy relevancy we need to recognize its novelty and divergent substance across Europe. Solutions will emerge when critical questions are asked that define what constitutes policy relevancy overall, across sectors. We can then position TEK in its multiple manifestations to see its corresponding success potential, for examples see below:

POLICY RELEVANT THEME	**ASPECT OF TEK IN NEED OF CONSIDERATION**
Reduction of ocean plastics	Increased monitoring and even removal using TEK
Lost fish stocks	Baselines, practices and dialogue with practitioners
Increase in tourism planning	Use of TEK in conveying local culture, and tourism ops
Climate Change alters the oceans	Recording and observing change at sea
New Marine Protected Area to come	Key species, spawning grounds and co-management
Ageing fishermen, lost fleets	Collection of unique and relevant Cultural Heritage
Women involved in the past	Defining gendered roles, attracting women to the trade
Ageing fishermen	Providing mechanisms to attract young fishers to trade
Regional food security	Maintaining fleets and fishers through regional support

EXAMPLES OF PARTIAL SUCCESSES:

Below are some examples on how different regions with varying environmental and economic conditions in Europe have addressed the above-discussed issues, and used their fisheries TEK in a locally relevant manner in order to tackle specific challenges in their regions. These examples have been chosen to represent differing fishery practices in a range of environments – from offshore marine to river and inland lake fishery.

They are relevant and important to highlight as in most global fishery cases the marginalized, community-relevant and small fisheries are either ignored or relegated to low priority in regional plans and policies. Often it has to be the fishing community themselves to make the noise and attract attention to the issues they are facing. Yet living Cultural Heritage and its embedded TEK are often associated with these same small-scale fishers, which are marginalized and forgotten in the macro-level issues such as the Common Fisheries Policy, and regional economic outlooks.

Winter seiners, Lake Puruvesi, North Karelia, Finland

The first example of policy-relevant TEK fishery comes from the region of North Karelia, Finland. Winter seining in lake Puruvesi is an ancient unbroken communal fishery practice, high in its cultural value. Winter seining is well adapted to local environmental conditions and especially the elderly fishers are experts in understanding the health of the lake itself and its fish. Lake Puruvesi is part of the Greater Saimaa, the fourth-largest lake in Europe. The lake is well-known for its excellent water quality and visibility.

The main fish species caught with the winter seine is Puruvesi vendace (*Coregonus albula)* valued for its nutritious high-quality and soft bone structure. The high quality of vendace from lake Puruvesi is appreciated by the customers, but the fish market structure in Finland is such that the price the fishers get is very low. In order to ensure better future markets and interest in fishing as a viable profession, local fishermen initiated the process that led to Puruvesi vendace now having the EU geographical indication in December 2013. The GI not only promotes the fish itself but recognises the culturally valuable way of fishing with seine and fish traps.

Lake Saimaa is also a home for two critically endangered lake species, the land-locked Atlantic salmon and freshwater Ringed seal, both are vulnerable to certain fishing practices, such as standing nets. Seining however does not harm either, since it is active fishing and if something that does not belong to the seine net ends there, it can be easily released alive and unharmed. Professional fishermen can also be involved in monitoring these and other lake species, as well as contributing to research on fish species or monitoring the water quality and highlighting possible problems.

At present, climate change is one of the main threats of the cryosphere dependent winter fishery in southern and eastern Finland. Winter 2019-2020 has been the

worst ice season that can be remembered in lake Puruvesi. When it became evident that the sufficient ice conditions were very late to form, Kesälahti fish base took swift action and contacted the European Commission on climate change impacts on the Finnish winter seining fishery. The response from the commission highlighted a possibility to apply support under the priority of Community-led Local Development, through which the European Maritime and Fisheries Fund can assist FLAGs in mitigating effects of climate change[2].

Due to unpredicted winter conditions and low fish prices, compacted by the relative high cost of fishing innovative employment opportunities are needed. Tourism is one option where more value can be created in owning boats and other gear.

There is no quota system in place in lake Puruvesi, but in order to fish professionally fishers needs to apply for a fishing licence under Metsähallitus, Finnish Forest and Park Service. Metsähallitus is responsible for managing the public waters of the lake. However the Savo part of the lake is also managed by private, locally-owned water management units.

A major challenge of maintaining winter seining practices in lake Puruvesi is the old age of fishers, and the lack of interest in the trade within the younger generations. Currently one of the ways this problem is being addressed is for example through the European Union supported master apprentice programme.

[2]More of the story available here: https://lifeplatform.eu/finland-puruvesi-fishers-urgent-call-to-the-european-commission/

Lamprey fishing, Gauja River, Carnikava, Latvia

River lamprey (*Lampetra fluviatilis)* is one of the commercially most important fish in inland waters of Latvia, where specialized fishing of river lamprey is permitted in 16 rivers (Eurofish, 2019).

River Gauja is located in a Cherish partner region, Riga Planning Region. RPR has chosen lamprey fishing and preparation to be included in their Cherish action plan as one of the good practices from the region. Carnikava lamprey fishery is located on river Gauja, some 30 kilometres from the capital, Riga. Gauja is one of the major rivers of Latvia, the watershed being significant both for ecology and culture with the watercourse being in a fairly natural state (no hydro-electricity).

The region and the municipality are using various methods to promote and safeguard the culturally valuable lamprey fishing practice as well as declining lamprey stocks on all levels; local, regional, national and international. Lamprey of Carnikava have been an EU geographical indication since the year 2015 and the catching and processing skills of lamprey in Carnikava is now included in the list of intangible Cultural Heritage of Latvia. A museum of local history is also situated at the mouth of the Gauja River. This cultural centre and museum devoted to the traditional fishing culture, showcases and supports the maintenance of local fishing practices in

Carnikava, highlighting the local lamprey fishing heritage.

Today in Carnikava two cooperatives are fishing for Gauja river lamprey from August to February, with the catch being processed by local small family businesses. Lamprey fishers receive annual licences from the local administration. In rivers where lamprey fishing is permitted the closed season varies from 1st of February to 31st of July or to the 31st of October (Eurofish 2019).

Year-by-year declines in river lamprey catches in Latvia remain constant, despite the artificial restocking programme. Latvia is carrying out extensive studies, annual monitoring and EU-funded cross-border studies with Lithuania concerning the lamprey stocks (Interreg Latvija-Lietuva, 2020)

A major event in the region, the annual lamprey festival, Nēģu svētki, takes place in August in the community of Carnikava. It celebrates the beginning of lamprey catching season and a special highlight of the event is lamprey soup. Traditions and cultural heritage are honoured in a parade and in presentations. Visitors can hop on a boat steered by a lamprey fisher and take a small tour on river Gauja and the Baltic Sea.

The festival has been able to attract growing numbers of people, offering a wide range of programme for all ages, but successfully keeping the lamprey fishery and knowledge in the forefront.

Creel fishing, Scotland, UK - Scottish Creel Fishermen's Association, SCFF

This example of Scottish small-scale creelers demonstrates that by how organising themselves into a larger umbrella organisation, small local associations and small-scale fishers can make themselves and their actions and knowledge and observations more relevant both regionally and nationally.

SCFF is '*the national trade association for the creel industry, a traditional and sustainable form of coastal fishing for shellfish that supports more jobs around the coastline of Scotland than any other type of fishery* (SCFF, 2019).

Creel fishing is a fishing practice where a type of cage is used in catching mainly lobsters and other crustaceans. The main species targeted in Scotland are prawns, lobster and crabs. Creel boats make up 74% of Scotland's inshore commercial fishing fleet and generated around £38.1 million for the Scottish Economy in 2012. Despite this the Scottish inshore creel fishing sector has historically been overlooked and underrepresented at a policy making level. In the year 2012, this situation led to the formation of the Scottish Creel Fishermen's Federation, giving creelers the chance to unite and make their voices heard at a national level. Ten Fishermen's Associations from around Scotland's coast make up the Federation. And SCFF aims to raise its profile and accessibility to all inshore creelers. The aim is to engage with community groups and promote the creel fishing industry, sell high quality products and ensure that the inshore fisheries in Scotland are well managed, and economically and environmentally sustainable (SCFF 2019).

The Dunbar Fishing Fleet in Scotland also makes the point that the carbon footprint of their creel fishery is minimal compared to other methods of fishing, as the majority of boats are small and fish relatively close to the shore (Dunbar Harbour Trust).

Through the Scottish Creel Fishermen's association, the inshore shellfish fishermen in Scotland have been able to voice their concerns in the media and in the Scottish government over bad fisheries management and unsustainable policies '*economic and environmental disaster of epic proportions*'. In 2019 they were calling for a trawling ban close to the shore in Scotland and stricter quotas in order to protect the stocks (The National Scot, 2019).

Scottish creelers are also currently working with scientists and conservation groups to prevent whales from entanglement in the creel buoy ropes, and fishers are taking an active role in a US-EU funded research which aims in designing a creel system where whales can not become entangled in the ropes (BBC, 2020). SCFF has also published a disentanglement guidance booklet for their members.

Synopsis

The above examples have been presented in the hope of stimulating discussion between CHERISH partners on the tangible policy relevance of traditional ecological knowledge. And how they may include TEK within their own regions action plans. Snowchange very much looks forward to being involved in these discussions and welcomes any comments from CHERISH partners.

Report photo credits:
Page 2: Vendors at the SlowFish 2017, Genoa, Italy
Page 3: Remote seasonal traditional fishing cabin out in Archipelago of Oura, Merikarvia, Western Baltic Finnish Coast, Finland
Page 4: Professional fisherman Timo Kuuskeri with a freshly caught Atlantic Salmon in Archipelago of Oura, Merikarvia, Western Baltic Finnish Coast, Finland in 2007.
Page 5: Despite extremely warm winter the seining commenced in March, 2020 with Puruvesi fishermen, Eastern Finland.
Page 6 (left): Lamprey prepared in a traditional way, Carnikava, Latvia, 2015.
Page 6 (right): Checking the lamprey traps on river Gauja, Carnikava, Latvia, 2015.

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