



Agenda Item 6.2
For Information

Council

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***The management approach to the West Greenland salmon fishery –
fairness and balance in the management of distant-water fisheries***

***(Tabled by Denmark (in respect of the Faroe Islands
and Greenland) - Greenland)***

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The Government of Greenland's contribution to Theme-based session - NASCO AM 2014

Session title: Managing the Inter-Play between Conservation and Socio-economic Considerations.

The management approach to the West Greenland salmon fishery – fairness and balance in the management of distant-water fisheries.

1. Introduction

Despite its size (2,166,086 km²), approximately from Bergen in Norway to Malaga in Spain - Greenland only have a population of 56,968 (31 Mar 2014) with a population density of 0.026/km² due to the Ice Cap that only make approximately 10% of the landmass habitable. Fisheries are the most important industry in Greenland not only economically but also emotionally. Fishery and hunting play an enormous role in the Greenlandic culture and identity. Many small and isolated settlements are dependent on fisheries. The approximately 2,800 small scale fishermen in Greenland provide for the livelihood of thousands of people and many small settlements – both directly and in-directly. Thus, every time the Ministry of Fisheries, Hunting and Agriculture makes a decision concerning the management of the fisheries, it takes the inter-play between conservation and socio-economic as well as emotive considerations into account. Greenland is still very much a fishing and hunting nation – and any limitations or changes in management is always monitored closely by the media, the Fishermen's organization (KNAPK) and the politicians. There is an enormous pressure to ensure the means of subsistence and survival of the small scale fishermen and the small settlements.

It is always a feat to balance the inter-play between conservation and the livelihood of the coastal population – the difficulty in achieving this balance, is evidenced in that no Fisheries Minister served a whole term in Greenland since the introduction of the Home Rule in 1979.

Greenland only has one salmon river with its own unique stock. Thus, the stocks exploited in Greenland mainly originate in other countries. Therefore, an essential part of the Greenlandic regulatory and management measures for the salmon fishery are agreed to internationally within NASCO. Since 1998 Greenland through NASCO committed to ban commercial fishery and export of salmon. Greenland is allowed to carry out an internal use fishery, the so-called subsistence fishery.

The salmon fishery in Greenland is an inshore fishery. Greenland has no salmon fishery beyond 12 nautical miles. The fishermen that fish for salmon are mostly small scale fishermen that fish from a dinghy but there are also a few vessels over 6 meters. The salmon fishery in Greenland is a relatively small fishery limited by a fishing season, 1 August - 31. October. Therefore, the salmon fishery is often a supplement for the fishermen or hunters ensuring a stable income throughout the year or to supplement the household outside of the hunting season. The fishermen that fish for salmon also fish for other species. Unlicensed fishery for private

consumption has always been allowed¹. Everybody living in Greenland is allowed to catch salmon for their own consumption.

This is an essential part of management measures in all Greenlandic fisheries, that everybody can fish for their own consumption. In the larger towns and cities people mostly fish for their own consumption because fresh fish is available and it is a good addition to the diet as well as fishing being an enjoyable pastime. However, in smaller settlements along the coast it is a vital part of peoples survival – not being able to afford buying expensive food the supplement that the fish you can catch gives is essential. Furthermore, in North- and East Greenland the supply ship is not able to sail through the ice between October and May, thus the shops begins to become empty by February/March – then fishing and hunting is important to the survival.

2. River Fishery

Greenland only has one known spawning population Atlantic salmon, *Salmo salar*, located in the Kapisillit river in the inner part of the Nuuk fjord, in West Greenland. Potentially, other rivers could hold a salmon population, but in general the rivers in Greenland are short, steep and cold. Although, the contribution of the small Kapisillit population to the salmon fishery around Greenland is persistent, it must be regarded as insignificant².

Some rod and reel fishery exists in the Kapisillit river, but the extent, size and catches is currently unknown. Electrofishing in the river in 2012, however revealed several yearclasses of smolts and the stock is persistent (unpublished). No CLs or other reference points have been established for the Kapisillit river.³

However, the Ministry of Environment and Nature is currently working on a strategy for the protection of biodiversity in Greenland. The Kapisillit salmon will in connection with this strategy stand out as especially conservation demanding and thus, it will be one of the highest priorities in the future conservation work. The main goal is to increase the protection of the river itself and endemic salmon stock from anthropogenic effects. The river is still almost undisturbed. The only known permanent disturbance to the river is that it, functions as water supply to the local settlement housing around 50 all year citizens. The disturbance involves a wooden structure and a 2.5 km long pipe from one of the lakes to the Kapisillit settlement . As part of the process, the local inhabitants have been heard about their opinion concerning the future of the river, the stock and the surrounding area. The protection plan includes the river, the river mouth, all areas supplying water to the river, the inner part of the fjord from the settlement to the river and surrounding areas. The process for an increased protection plan was started a few years ago and the expectation is a full protection of the area and a new set of rules for the use of the stock and area by 2015.

3. Inshore Salmon Fishery

The inshore salmon fishery in Greenland is a mixed-stock fishery with contributions from the North American salmon and European salmon. The North Atlantic Salmon Working Group in ICES assess the stocks that contribute to the Greenland salmon fishery on the basis of the data from scientific samplers from NASCO and the Greenland Institute of Natural Resources. Through NASCO Greenland participates in a scientific cooperation concerning the salmon in the West Greenland fishery. A group of scientist work in Greenland

¹ Nygaard, Rasmus; *The Salmon Fishery in Greenland 2012 – Working paper 2013/XX*. International Council for The Exploration of the Sea – North Atlantic Salmon Working Group.

² Nygaard, Rasmus; *The Salmon Fishery in Greenland 2012 – Working paper 2013/XX*. International Council for The Exploration of the Sea – North Atlantic Salmon Working Group.

³ Nygaard, Rasmus; *The Salmon Fishery in Greenland 2012 – Working paper 2013/XX*. International Council for The Exploration of the Sea – North Atlantic Salmon Working Group.

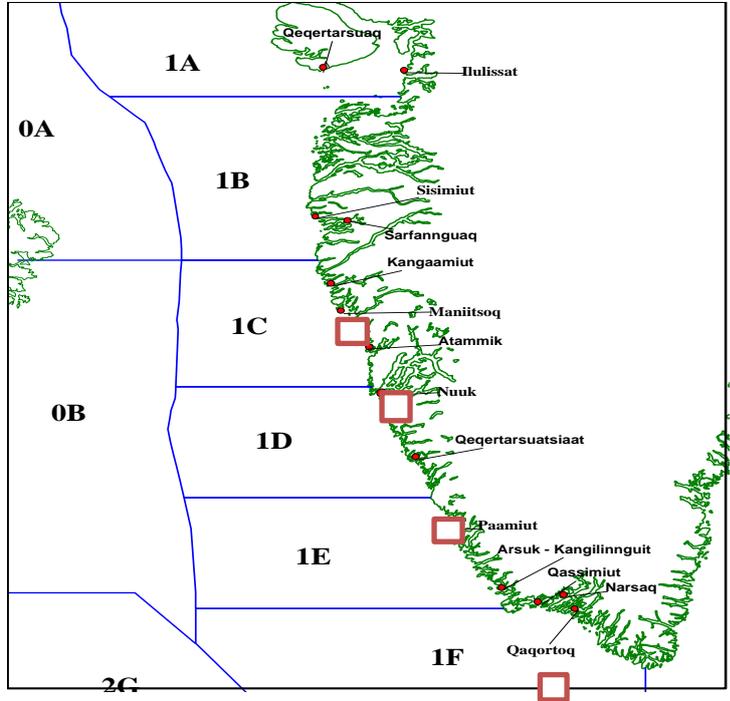
during the fishing season with sampling of salmon. Collecting DNA, length and weight samples. Furthermore, the Greenland Institute of Natural Resources participates in the North Atlantic Salmon Working Group in ICES. The scientists at the Institute collect data on the salmon fishery to ICES from the factory landing reports and the catch reports provided directly by the fishermen to Greenland Fisheries License Control (GFLK).

In accordance with the agreements in NASCO Greenland has no commercial fishery on salmon and an export ban has existed since 1998. In addition to the regulatory measures from NASCO, the Greenlandic fishermen is limited by; the fishing season from 1 August – 31 October, a minimum mesh size in gillnets of 70 mm and number of nets. The unlicensed fishermen can use 1 salmon net and licensed fishermen can use up to 20 salmon nets. Furthermore, the licensed fishermen are allowed to use driftnets. All catches must be reported to GFLK, this entails that both licensed and unlicensed fishermen must report their catches.

The salmon fishery in Greenland is limited to an internal-use fishery - subsistence fishery, thus the fishery is managed from a socio-economic perspective as well as from the need to feed the population in Greenland. Salmon can be fished by non-professionals, who is allowed to fish for their own consumption and by professional fishermen, who have to require a license. The licensed fishermen can sell their catch to local markets, institutions or restaurants and since 2012 they can also land a quota of 35 tons to factories. This quota has been set by the Government of Greenland in order to ensure that all citizens get the opportunity to consume Greenlandic salmon and at the same time ensure the fishermen landing opportunities. The opportunity to land salmon entails employment for both small scale fishermen and employees at the factories. This opportunity can be the difference between closing the factories for longer periods at the time and ensuring the means of subsistence for fishermen and factory workers.

When the Government of Greenland decided to set a factory quota it was based on socio-economic considerations – the salmon fishery in Greenland is a small and regulatory very limited fishery but the Government of Greenland has some possibilities within the regulatory framework to ensure the means of subsistence for its population. The Fishermen's organization KNAPK has for some time put pressure on the Government to lift the ban on commercial fishery and export of salmon. This is not possible due to Greenland's commitment to NASCO – however, from a socio-economic perspective some settlements in especially Mid- and South Greenland needed help to ensure their livelihood and thus, a factory quota was set in order to provide work all year around in the settlements – all within the regulatory framework of NASCO. In 2013, four settlement received salmon for factories; Atammik, Kangaamiut, Qeqertarsuatsiaat and Arsuk. For these small settlement with respectively, 213, 362, 218 and 144 inhabitants it has been an important decision.

Figure 1. Location of the NAFO divisions along the West coast of Greenland - Identifying the four settlements that landed salmon in 2013 with a red square.



The salmon fishery has been regulated and limited during the last decades through NASCO and is today on a very low level. As shown in the table of reported landings in tons for the fishery at West Greenland 1990-2013 below, Greenland has limited its fishery continually in the last more than 20 years in order to permit the rebuilding of stocks below their CLs. As Greenland is within its right to fish salmon as a subsistence fishery and also set an internal-use quota for landings within the framework of NASCO, it has not consulted stakeholders.

Table 1. Reported landings (t) by NAFO Division for the fishery at West Greenland, 1990-2013.

Year	1A	1B	1C	1D	1E	1F	Unk.	West	East	Total
								Greenland	Greenland	
1990	4	20	132	54	16	48	-	274	-	274
1991	12	36	120	38	108	158	-	472	4	476
1992	-	4	23	5	75	130	-	237	5	242
1993										
1994										
1995	+	10	28	17	22	5	-	83	2	85
1996	+	+	50	8	23	10	-	92	+	92
1997	1	5	15	4	16	17	-	58	1	59
1998	1	2	2	4	1	2	-	11	-	11
1999	+	2	3	9	2	2	-	19	+	19
2000	+	+	1	7	+	13	-	21	-	21
2001	+	1	4	5	3	28	-	43	-	43
2002	+	+	2	4	1	2	-	9	-	9
2003	1	+	2	1	1	5	-	9	-	9
2004	3	1	4	2	3	2	-	15	-	15
2005	1	3	2	1	3	5	-	15	-	15
2006	6	2	3	4	2	4	-	22	-	22
2007	2	5	6	4	5	2	-	25	-	25
2008	4.9	2.2	10	1.6	2.5	5	0	26.2	0	26
2009	0.2	6.2	7.1	3	4.3	4.8	0	25.6	0.8	26
2010	17.3	4.6	2.4	2.7	6.8	4.3	0	38.1	1.7	40
2011	1.8	3.7	5.3	8	4	4.6	0	27.4	0.1	28
2012	5.4	0.8	15	4.6	4	3	0	32.6	0.5	33
2013	3.1	2.4	17.9	13.4	6.4	3.8	0	47.0	0	47

+ Small catches <5 t.
- No catch.

Some of the stocks that Greenland fish on is below their CLs and therefore, Greenland has taken several steps in order to ensure that exploitation was limited. Measures have been taken during the last 20 years to limited the fishery through both NASCO regulation and national regulation. Greenland has lived up to its obligations in NASCO and reduced its fishery from 274 tons in 1990 to 46,9 tons in 2013, banned export and commercial fishery. Committing to a subsistence fishery, fishing only to sustain its population and the survival of the settlement.

The Government of Greenland always aim to manage the fisheries sustainably and the Ministry of Fisheries, Hunting and Agriculture works closely with the Greenland Institute of Natural Resources. However, the socio-economic considerations also play an huge part in the management of fisheries in Greenland. The foremost consideration is to secure the means of subsistence for the fishery communities – because Greenland does not have any alternative employment or industry that can replace the fishery. Therefore, if there is no fishery it would not only limited peoples means of survival – but it would also entail that all the people in the fishery and the connected industries would have to be supported by the society, receiving social help.

The inter-play between socio-economic considerations and conservation in the management is also often a balance between the present and the future. Greenland has high hopes for the oil and minerals industry, however evaluations deem the raw material adventure to be 25-50 years into the future – thus, fisheries is going to continue to be the main livelihood in Greenland in many years to come. Which makes the management an even harder feat for the Government of Greenland as it needs to find a balance between the Fishermen’s organization, its international partners in NASCO and the need of its population both now and in the future. This is a difficult exercise. The fishermen want to return to commercial salmon fishery in Greenland because they see more salmon throughout the whole year –

but the scientific advice show us that the stocks has not improved despite our best efforts and continually reducing the fishery in West Greenland, thus caution is needed in order to allow the stocks to rebuild and secure a salmon fishery in the future.

The title of Greenland's presentation was '*The management approach to the West Greenland salmon fishery – fairness and balance in the management of distant-water fisheries*'. Whether the management of the salmon fishery in Greenland is fair is difficult to judge as one can never please everybody – some wants to lift the export and commercial fishing ban and others want to limit the fishery further - considering this, the Government of Greenland tries within its capacity to balance the management between the need for conservation and the socio-economic impact on the Greenlandic society. This has been the management approach in the West Greenland salmon fishery in the last more than 20 years.