

Coastal fisheries in Greenland



Prepared by:
KNAPK, Nuuk, Greenland



<i>Title</i>	Coastal fisheries in Greenland		
<i>Author</i>	Tønnes "Kaka" Berthelsen		
<i>Report no.</i>		<i>Date:</i>	April 2014
<i>Project no.</i>	510-080 / 80-2013		
<i>Funding:</i>	NORA and AG-fisk (The Nordic working group for fisheries co-operation)		
<i>Summary in English:</i>	<p>The Greenlandic coastal fleet includes 294 registered vessels and approximately 1,500 dinghies and other small open deck vessels. This fleet is divided into different categories. Within the Greenland fisheries management system the coastal fleet is split up into two main groups, operated within the Individual Transferable Quota system (ITQ), and free fisheries referring to a pool-system within a TAC. The coastal fleet is then influenced by the fisheries legislations in many other ways, the legislation varies depending on fish species.</p> <p>Basically vessels categorised as being part of the coastal fleet are less than 120 GT, however there are exemptions. The fleet is an important contributor to the national economy of Greenland and is considered a key element for regional development and settlements in the country. Main commercial species in Greenlandic waters are demersal species, however crustaceans and pelagic species do also play a major role for the industry. In terms of value, Greenland halibut and shrimp are actually roughly equal with both 42% of the total payment to the fishermen. Other important species are lumpfish (roe) and cod with both 5 % of payments. The coastal fleet has significant role in the Greenlandic economy, value of landings in 2012 was approximately DKK 800 million (payments to the fisherman) or value of 107 million Euros. In comparison Greenland total exports of fish and shellfish was approximately DKK 2.5 billion in 2012.</p> <p>It is of some challenge to determine how many fishermen actually work full-time on the coastal fisheries. In 2013 some 2,773 licensees were issued on the coastal near fisheries, however some licenses are issued for one individual. One license is not always covering all species, some species requires specific license i.e. a license to cod is not enough in order to go for Greenland halibut or salmon, one will need another license. A rough estimation is though that coastal fishermen in Greenland are about 2,000.</p>		
<i>English keywords:</i>	<i>Coastal fleet, coastal fisheries, fisheries management, coastal fishing</i>		



NORA

Nordic Atlantic Cooperation

Contents

- 1 Introduction..... 1
- 2 The Greenlandic coastal fleet..... 1
 - 2.1 The coastal sector’s operating environment..... 5
 - 2.1.1 Common fishing licenses..... 5
 - 2.1.2 The shrimp fisheries Quota system..... 6
 - 2.1.3 The Greenland halibut coastal fishery system 6
 - 2.1.4 The Snow crab fishery 7
 - 2.1.5 The Lumpfish fishery 8
 - 2.1.6 The cod fishery 10
 - 2.2 Analysis of the Greenlandic coastal fleet 11
 - 2.3 Catches of coastal vessels in 2012..... 12
 - 2.4 Value of coastal catches in 2012 14
 - 2.5 Employment within the coastal sector..... 15
- 3 Closing remarks 16
- References..... 17

1 Introduction

The objective of this report is to summarise some key facts on the Greenlandic coastal fishing fleet i.e. vessels under 120 GT (Gross Tonnage). These facts include for example the number of vessels within the sector, the fisheries management issues effecting it, catch volumes and species, value creation, fishing methods, regional issues and effects on regional development, employment numbers within the sector and other relevant information. The aim is to gather and analyse these basic information on the coastal sector and to facilitate improvements based on the results.

The report is a part of a larger initiative that spans over many of the coastal nations in the N-Atlantic and will therefore contribute to international networking among stakeholders across the North Atlantic. Subsequent analyses of coastal fisheries in the North Atlantic will build on inventory data provided by the research organisations in other NORA member countries. These countries include Norway, Faroe Islands, Iceland and Canada (Newfoundland). Similar reports will be published from each of these countries to give comparison of coastal fisheries in the North Atlantic.

2 The Greenlandic coastal fleet

There are 310 Greenlandic fishing vessels registered in the Danish Maritime Authority's registry. 294 are classified as small vessels¹ (Danish Maritime Authority, 2012). These boats have fishing licences within both the Individual Transferable Quota system (ITQ) and free quota within TAC limits. Maximum size for boats allowed to carry out fisheries from shore out to 3 nautical miles is 120 GT. However few shrimp trawlers much bigger than this limit do fish inside the limitation on dispensation from the government. There are also a number of small vessels operated outside these two main quota systems, for example the lumpfish fleet. The small boat coastal fishing fleet (included 3 shrimp trawlers bigger than 120 GT) caught more than 98,000 tons, valued at DKK 817 million² in Greenlandic waters in the fishing year 2012 (Statistics Greenland, 2013). This fleet is largely operated from villages

¹ For the purpose of this report the Greenland coastal fleet has been defined as all vessels under 120 gross tonnage in size.

² Approximately 110 million Euros

situated on the coast. The settlement patterns have been severely affected by the commercialisation of the fishing industry in the last decades. The shrimp industry has been particularly affected by optimisation and aggregation of quota shares by the two largest seafood companies. In the year 2000 there were ten shrimp plants operated in Greenland, and today there are only four left, which are all situated in northern part of the country. In some extreme cases, small traditional fishing settlements with little input or no fishing rights have faced plant closures or periodic closures, causing problems in regards to regional development. The small boat sector is now the backbone for employment and survival of many of those fishing villages. This fleet is therefore highly important for survival of the small fishing communities around the country.

By January 2014 the total population of Greenland was a little over 56,000, of which 30 % (16 thousands plus), live in the capital Nuuk. Other larger cities are; Sisimiut with population of 5,500 and Ilulissat with 4.500 inhabitants. When looking at population development and migration over the past ten years, it is apparent that people are moving from smaller settlements into larger towns. The population is growing fastest in the capital of Nuuk, but there is also considerable migration from Nuuk to Copenhagen.

The population in the cities is growing, whilst population in the traditional fishing and hunting settlements around the country are decreasing. Population divided by municipality and towns vs. settlements in 2003 and 2013 can be seen in Table 1 (Copenhagen Economics, 2013):

Table 1: Population in Greenland by municipalities and towns/settlements in 2003 and 2013

	2003		2013	
	Towns	Settlements	Towns	Settlements
Kujalleq (South)	6,378	1,543	6,069	1,082
Sermersooq (Cross Ice cap)	18,063	1,947	20,438	1,430
Qeqqata (Mid)	8,162	1,543	8,268	1,352
Qaasuitsup (North)	13,964	4,827	13,376	4,122
Total	46,567	9,860	48,151	7,986

Population in south and north is downward, steady in mid and growing in Nuuk in particular.



Figure 1: Map of the municipality division

The small coastal vessels are relatively evenly distributed around the coast. In east there are only 6 boats registered as GR boats. A GR boat is a vessel registered at the Danish Maritime Authority (Søfartsstyrelsen). Dinghies and other small open boats are generally not registered in Greenland, but there are a lot of those boats in operation. Considerable number of 14 feet long open boats are for example used in fisheries like Greenland halibut and lumpfish fisheries. On the west coast fishing vessels (GR boats) are very common, however the average age is quite high, as table 2 shows (Danish Maritime Authority, 2012).

Table 2: Number of coastal vessels and their average age, along with number of offshore vessels in 2012.

Municipality	Number of vessels	Average age	Offshore vessels
Kujataa (south)	38	43,9	1
Sermersooq	86	42,3	10
Qeqqata (Mid)	63	46,9	2
Qaasuitsup (North)	107	44,9	3
Total	294		16

The small boats and dinghies are important in coastal communities in West Greenland and in particular in the Disko bay area and north from there, where those boats account for most of the landings. They are hugely important suppliers of fish for onshore production, after all it is mandatory to land all catches to onshore plants. The deputy manager of the Association of Fishers and Hunters in Greenland (KNAPK) has stated that the payment to suppliers (coastal fishermen) from the coastal fleet in the fishing year 2012/13 was 817 million DKK³. The total export value of fish and shellfish for the year of 2013 from Greenland was 2.5 billion DKK. It is however a huge challenge to put an exact value for how much the raw materials from the coastal fleet generates. According to Greenland Statistics articles of DKK 2.3 billion goes either to or through Denmark, much of it is processed in Denmark in companies owned by three Greenlandic entities, so it is really a challenge to estimate export value of products made from these catches.

There are three seafood entities that are really big in Greenlandic terms. One of those is however only operating on offshore shrimp and Greenland halibut, and has little relevance for coastal fisheries. The other two are highly relevant for coastal fisheries and it is possible to use their production figures to estimate the value of the coastal sector. By deducting the value of exported shrimp with shell-on and 25 % of cooked and pilled and 10,000 MT of Greenland halibut exports from the 2.5 billion DKK total export value, the estimated export value of products from coastal catches can be estimated at 1.4 billion DKK⁴ (Statistics Greenland, 2013). But because of lack of transparency the figure is very vague. When a company “exports” for example a barrel full of lumpfish roe, the purchaser will be the same company’s caviar processor in Europe. The parent company has therefore flexibility to pay an intercompany price, contracted price or a “world market price”. It needs also to be taken into account that the value adding often takes place outside Greenland, meaning that the official export statistics do not demonstrate accurate or actual values. Nonetheless the figures highlight the coastal sector’s huge role for the value creation and national economy.

³ Approximately 110 million Euros

⁴ Approximately 340 million Euros

2.1 The coastal sector's operating environment

It was mentioned earlier that both quota system and free fisheries within the TAC framework are applied in Greenland. To fully understand the Greenlandic fishery a quick description of the offshore fishery is needed. In the offshore fishery traditionally two species are major subjects; shrimp and Greenland halibut. From 2012 the Atlantic mackerel has also become increasingly important.

The shrimp fishery is managed by an ITQ system and the Greenland halibut fishery is managed by licensing and TAC restrictions. There are only five companies that hold licenses to catch Greenland halibut and they were allowed to catch 13,500 MT in 2012. For both fisheries only trawls are allowed. The mackerel fishery is managed by licensing and in 2013 8 companies operating 18 vessels obtained a license; their total catches were 53 thousand MT. Mackerel vessels cannot carry out fisheries inside the basic coastal line.

On the coastal fisheries it is common to fish free under a specie TAC. Major part of the medium- and small size vessels do fish free that way. Cod, redfish, spotted sea cat, lumpfish and partly Greenland halibut are species within this system.

Shrimp and partly Greenland halibut are ITQ based fisheries. Snow crab is a mix of everything fishery. In the next chapters the systems applied will be presented.

2.1.1 Common fishing licenses

Fisheries in Greenlandic waters are subjected to the Fisheries management act of the Greenlandic Parliament (Inatsisartut) Act no. 18 of October 31th 1996. The act includes a definition for who is a fisherman i.e. "...person shall in the previous two calendar years have been engaged as fulltime fishermen and more than 50% of his gross income must be generated from fisheries" (Article 4, translated by Berthlsen). If a person can meet these requirements he/she can apply for a fisheries license. With a normal license he/she can catch "free" quantities - within a TAC – on the following species: cod, redfish, catfish, capelin, salmon and some few other species in insignificant amounts though.

The management authorities do not distinct between fisheries depending on fishing gear. Major part of cod catches are for example caught in traps (bundgarn) and less than 10% of the catches are caught by line- or jigging.

2.1.2 The shrimp fisheries Quota system

Every year the government (Naalakkersuisut) in Greenland allocates licenses for shrimp fisheries. There are four types of licenses available, one of these are applied on the “near coast” shrimp fishery; section 14, time indefinite license which carry a maximum allowable catch. The license holds a certain fishing rights to carry out fisheries on the West coast of Greenland, from coastline out to 3 NM from the basic line. The law has been very stable since its creation. Each entity can own up to 15 % of the coast near TAC. All catches shall be landed to an onshore plant, meaning that the raw-materials must be sold to one of the two companies operating the four plants that are currently in operation, from Nuuk to Ilulissat in the Disko bay area. In comparison, it is mandatory for the offshore licensees to land 25 % of their catches from their offshore TAC. For the fishing year 2014 these quotas amount to 34,145 tonnes in the near coast fishery and 45,261 in the offshore fishery, in total 79,406 tonnes. (Berthelsen, Deputy manager of KNAPK, 2014).

2.1.3 The Greenland halibut coastal fishery system

The Greenland halibut coastal fishery is divided into two main management areas;

- 1) South of 68°00'N, which spans from Disko bay in the west coast down to the most southern part of Greenland and then up most of the Eastern coast.
- 2) North of 68°00'N to 75°00'N. That area is again divided into three management areas, the borders of the subareas are stipulated in the Greenland government notice no. 2 from February 2nd 2012 on coastal fisheries for Greenland halibut.

Regarding the south of 68°N Greenland halibut fishery. It is subjected to a specific halibut license and those holding such a license are required to sell their catch to Greenlandic processors. In the year of 2012 some 529 tonnes Greenland halibut were sold to the producers. (Berthelsen, 2014).

Regarding the north of 68°N Greenland halibut fishery, which covers seven “old” municipalities. In 2009 there was an amendment to the municipality structure, from being 18 municipalities the country was divided into 4 big municipalities. The Qaasuitsup kommune is now arguably the biggest municipality in the world in terms of square kilometres i.e. 660 thousand km² (same size as France) and spans from Kangaatsiaq in south

to Qaanaaq (Thule) in north, or approximately 1,300 kilometres. The Greenland halibut sub-management areas within the municipality are a) Disko bay, b) Uummannaq and, c) Upernavik.

The Greenland halibut fishery in these three areas in value the most important fishery in the whole coastal fisheries industry. More than 23,000 tonnes of Greenland halibut were landed in that area in 2012, valued at over 333 million DKK (44 million Euros), of which 41% were generated by the fishermen and put directly into the local economy.

As previously mentioned the maximum size limit for all coastal fisheries is 120 GT, however regulation for the Greenland halibut fishery in the three management zones is 31,99 GT⁵ and that it is only permitted to fish from coast and out to 3 NM. The background is that to big vessels will have too much impact on the onshore production structure, the idea of sustainability do also play a role.

2.1.4 The Snow crab fishery

The Greenlandic snow crab (*chionoecetes opilio*) fishery started around 1992 when Canadians together with few locals started the industry. Offshore activities dominated in the beginning, but soon a coastal fleet was built up around this fishery and today only coastal vessels below 120 GT are allowed to take part in the fishery, apart from a small quota of 250 MT that is allocated to the EU. The allocated TACs for 2014 are 2,800 MT, of which local coastal fishermen can catch 2,550 tonnes.

There are no snow crab quotas allocated for the East coast of Greenland, as the fishery is mainly conducted along the West coast, from the most southern tip of the county up to Disco bay. The snow crab is fished in pots and the fishing grounds are divided into six management zones, as can be seen in figure 2.

⁵ Executive Order no. 2, Febr 2nd 2012 Coastal Fisheries for Greenland halibut, section 1

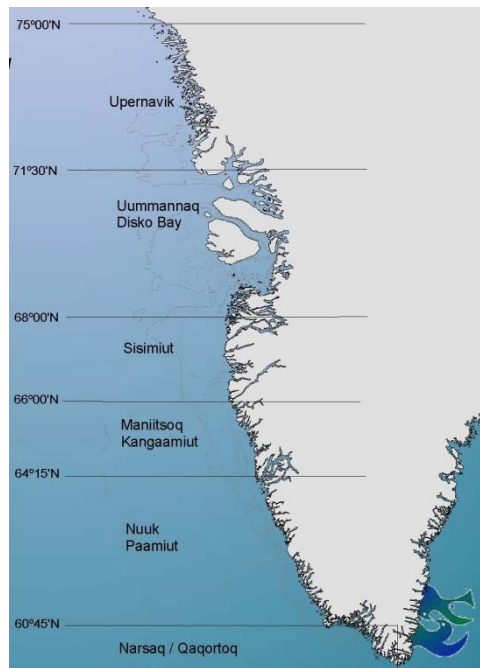


Figure 2: The Greenlandic snow crab zones

When fishing in one of the zones it is allowed to put maximum of 50 pots in one link at a time (Selfgovernment, 2010). Only pots with a mesh size of minimum 140 mm can be used as gear and only males can be landed and not below 100 mm on carapace. Crabs change shield when growing, so in periods where there are large portion of “softies”, it can be necessary to move to another fishing grounds. Area closures are applied if the ratio of soft shells is over 20%.

Only commercial fishermen can apply for a license within the coastal snow crab fishery. In 2012 a total of 66 licences were issued, but only 26 were active; meaning that they have sold snow crab more than twice in that year. In comparison, when the fishery peaked in 2001/02, a total of 392 licenses were issued and 92 were active (Burmeister, 2014). In that fishing season more than 15,000 tonnes were landed, but the current TAC allocations are however only 2,800 tonnes. The TACs are decided on with sustainability considerations in mind, but the catches of 2002 can probably not be described as sustainable.

The total Export values of snow crab from Greenland in 2013 were 60 million DKK. (Statistics Greenland, 2014)

2.1.5 The Lumpfish fishery

As of the 2014 lumpfish season a series of completely new regulatory tools have been launched. A new management regulation has taken effect where for the first time in history

a maximum number of fishing days will be introduced to the Greenlandic fishery and quotas have been introduced. It has not been deemed necessary to put much resources on biological surveys until now, but as the fishery is currently working on to MSC certification for the lumpfish fishery such efforts are now compulsory. Current knowledge on many fields is not optimum i.e. CPUE (Catch Per Unit Effort) is not believed possible to monitor and LPUE (landings per unit effort) must therefore be applied as the second best option. In lack of better alternatives, the average catches of the last four fishing years will be applied as TAC, which relates to about 11,000 produced barrels or roe.

In the future the vessels taking part in the lumpfish fishery will be required to have special licenses, which will be valid for 2 years at a time. Coastal vessels under 120 GT will be eligible for such licenses, but in 2013 only eight vessels over 30 feet took part in the fishery. These larger vessels were though mainly used as service-boats i.e. for sleeping, showering, eating etc. The newly adopted management measures stipulate that each licensed vessel is allocated a certain number of days in each fishing season (47 days in 2014). Each license can fish anywhere within all NAFO areas (see figure 3), meaning he can start from south and follow the stock as it moves north. In relation to fishing days, the purchaser (processor) and representatives from local fisheries society decides when to start and close the fishery on lumpfish. When both parties believe the quality of roe is good enough they will declare opening of the season and fishermen will start laying out nets and henceforth fishing days will count from that point on.

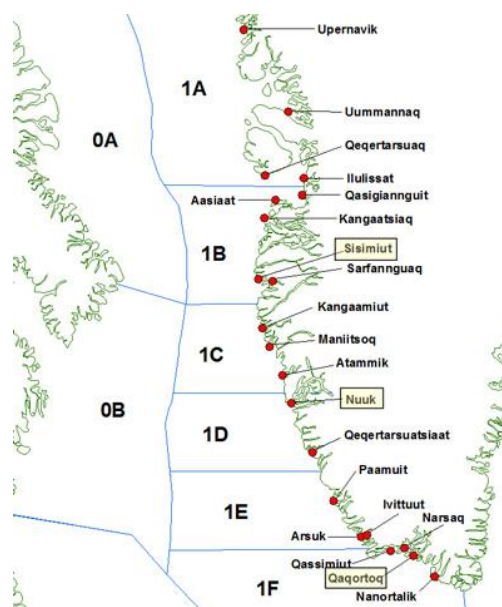


Figure 3: NAFO Arias 1A - 1F

A quota is allocated for each of the NAFO areas, but most value is generated in areas 1B and 1C. In 2012 some 56 % of Greenland's 55,7 million DKK exports of lumpfish roe came from these two areas (Statistics Greenland, 2013).

2.1.6 The cod fishery

License for cod fishing is quite straightforward, it simply requires a general fishing and hunting license. Fishing in East Greenland is mainly off-shore bottom trawling, the yearly TAC for that area for 2014-2017 is 10,000 MT.

The size of the cod stocks around Greenland have been very low for the last two decades, but results from stock assessments show now very promising figures and the 2009 recruitment in particular shows big numbers. The industry has agreed on a management plan for the off-shore component, where TACs for the next five years will be very low while the stock is recuperating. If the stock develops as hoped for the TACs after those five year waiting period could reach excess of 200,000 MT, according to the Greenland Natural Institute.

Coastal fisheries of cod are mainly conducted using Danish model trap or "poundnet" (bundgarn), but more than 90% of coastal catches of cod are caught in poundnet. The remaining 10% are mainly caught by hand-line and gillnets. The TAC for coastal cod in 2014 is set at 15,000 MT. The poundnet season is May and June, but in recent years the season for poundnet has been extended into September. Hand-lines or jigging are common from late July into autumn and gillnets can be seen in some part of the West coast in the winter; use of gillnets requires authorization from municipality authorities. The coastal fishery is an "Olympic" fishery i.e. when the 15,000 MT TAC has been reached the fishery is closed down.

Export values of cod in 2012 were 49 million DKK, average value was as low as 5 DKK/kg (0,67 €/kg). The Greenlandic cod industry is currently run at losses and is only kept alive because of perspectives for increasing catches in the near future. Auctions are not known in Greenland and it is mandatory to land catches to processors, so prices paid to fishermen can be extremely low.

2.2 Analysis of the Greenlandic coastal fleet

The Greenlandic coastal fleet is diverse according to size, gear, equipment's and operation. It is though divided mainly into three groups;

- a) Coastal shrimp trawlers, from 80 GT – 800+ GT,
- b) Cutters both made of wood and steel, from 20 – 70 GT (30 – 70 feet long)
- c) Dinghies 14 – 21 feet long small boats and mainly open boats without cabin or any shelter.

Figure 4 shows how the fleet is divided, in number of vessels, according to the components (Berthelsen, 2014).

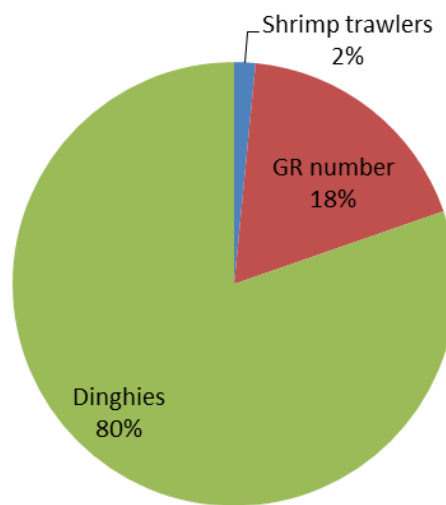


Figure 4: Divisions of boats according to their component

The number of shrimp trawlers is accurate (23 vessels), number of vessels registered with a GR number at the Danish Maritime Authorities is also fairly accurate (294), even though the register needs to be updated. The registration and numbers of dinghies is however far from exact.

The total number of dinghies is estimated at 1,500. Dinghies taking part in the Greenland halibut fishery within the three North Greenland management areas (Disko bay, Uummannaq and Upernavik) are 825 and the basis for that estimation is believed to be quite accurate. Boats <6 meters don't have a GR register but are registered at the Department of Fisheries. In addition to the 825 vessels in the halibut fishery, some 610 licences were issued within the lumpfish fishery last year (2013); lumpfish fisherman go

also for cod and other species. Of course there are more dinghies in Greenland, but they are primarily used by seal hunters and recreation; not for fishing, so 1,500.

Almost all coastal catches in 2012 were demersal species. Figure 5 shows the gear proportion of total catch of coastal vessels in 2012. A proportion less than 1% can be divided into gillnet (arctic char), J&L (halibut, spotted catfish) and even net and bucket (capelin).

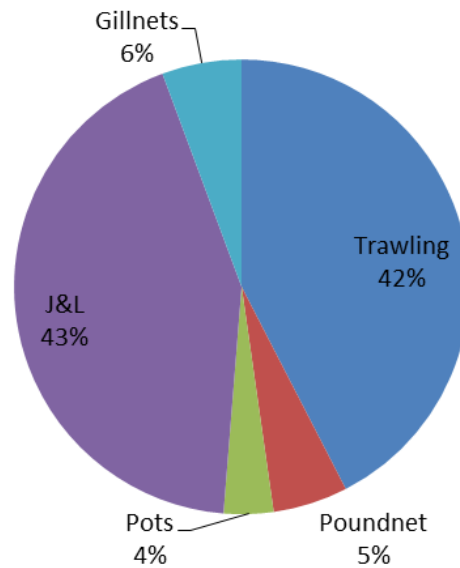


Figure 5: Coastal catches according to fishing gear in 2012

Greenland halibut is the most important species for the coastal vessels, accounting for 43% of catches, most of which is caught by J&Ls. Trawls are used when fishing shrimp, shrimp is also important however only few vessels do the fishing, in comparison more than 900 fishermen and their families are dependent on Greenland halibut. Pots are used for fishing snow crab, gillnets for catching lumpfish and poundnet for fishing cod.

2.3 Catches of coastal vessels in 2012

The total demersal catches of species within TAC, quota and free quota in Greenland waters in 2012 were 152,740 thousand tonnes (Statistics Greenland, 2014), of which the small coastal vessels accounted for close to 80 thousand tons (Berthelsen, 2014). This amounts to almost 50% of the total demersal catches. By far the biggest part of the coastal catches were caught within trawling and the J&Ls, as shown in Figure 6.

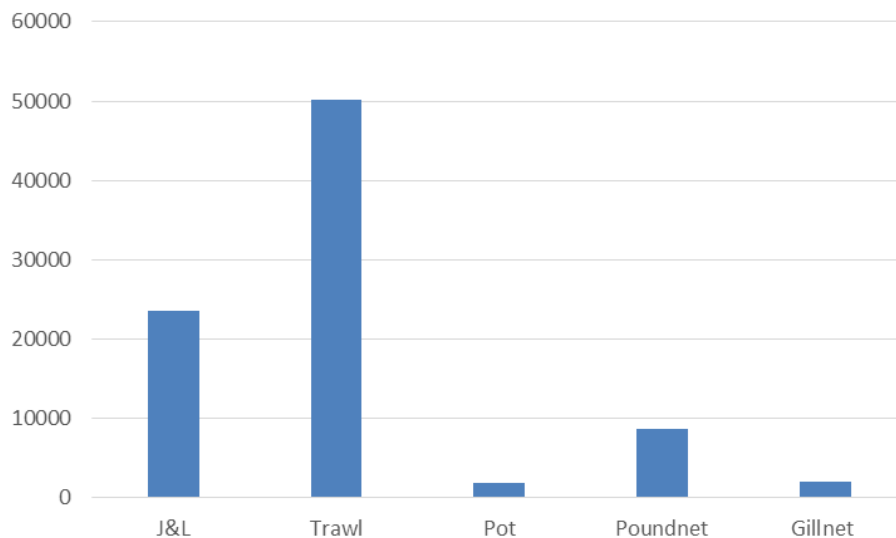


Figure 6: Catches of coastal vessels in 2012 by gear

The coastal fleet caught in total 80 thousand tons in 2012, including demersal-, and shellfish catches. Shrimp, Greenland halibut, cod, snow crab and lumpfish are the species accounting for most of the volume landed by the coastal vessels, as can be seen in Figure 7 (Berthelsen, 2014).

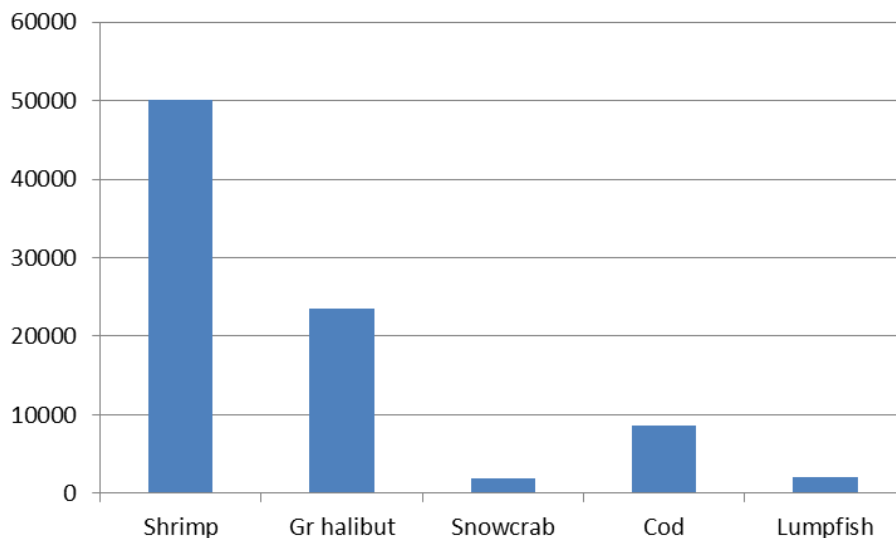


Figure 7: Catches of coastal vessels, main species in 2012, in tonnes

The coastal vessels are important for many regions, especially those affected by the commercialisation of the industry for last decades. Many communities having problems caused by diminishing stocks and quotas are relying on the small coastal vessels to boost the economy. The big municipality in terms of square kilometres Qaasuitsoq in north accounts for 33,3% of Greenland population, the municipality's share of GR registered

vessels is 36,4% and this figure are boats under 6 meters excluded. If the small dinghies where added the significance of fishery in north will be huge.

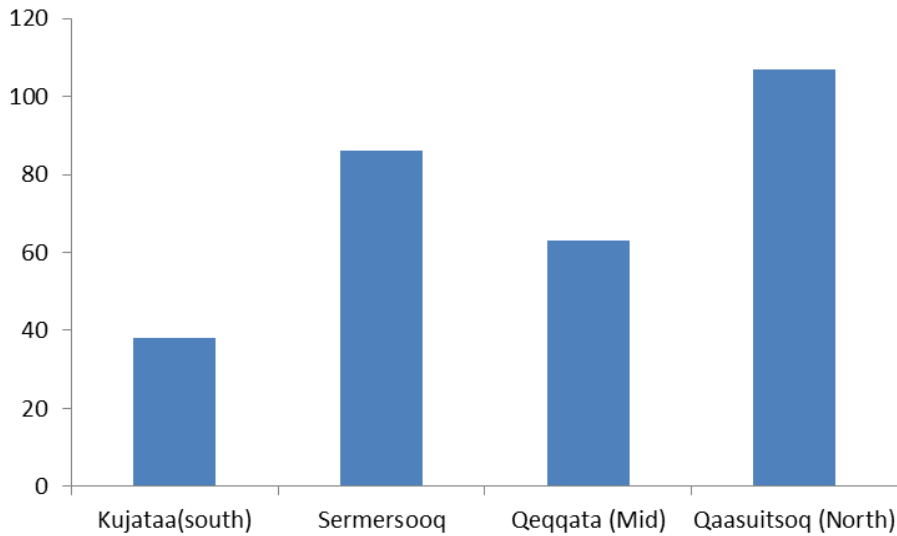


Figure 8: Numbers of coastal (GR registered) vessels in the municipalities

Fisheries are less important for the municipalities in the south of Greenland, where sheep farming is more characteristic for that area.

2.4 Value of coastal catches in 2012

The deputy manager of Association of Fishermen and Hunter in Greenland – KNAPK - has done a study showing that below 120 GT coastal fleet (included coastal shrimp trawlers) landed in the fishing year 2012 close to 80 thousand tonnes of catches, valued at 799 million DKK⁶. Estimated export value of products produced from these catches are around 1,4 billion DKK⁷ (Berthelsen, 2014). Total export figures for the whole industry increased significantly in 2013 though, harvesting of mackerel started in 2011 off the East coast Greenland and in 2013 the catches had reached 53,000 MT from 5,300 MT in 2012. Pelagic fishery in East Greenland is not a coastal fishery and will therefore not be included in this study.

Figure 9 shows relative landing values of coastal catches in 2012 by main species, where the importance of Greenland halibut and shrimp is clearly demonstrated.

⁶ Approximately 107.5 million Euros

⁷ Approximately 188 million Euros

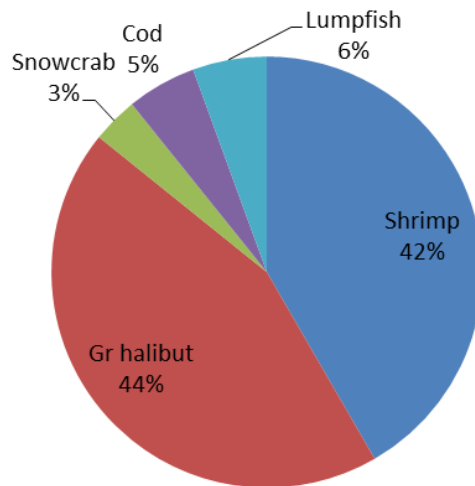


Figure 9: Relative landing value of catches from coastal vessels in 2012

Figure 7 showed that the catch volume of shrimp was double the volume of Greenland halibut, the landing value of these two species is though almost equal, meaning that each kg of halibut is twice as valuable as shrimp. The importance of shrimp is declining whilst Greenland halibut and lumpfish are increasing. Shrimp and Greenland halibut are by far the most valuable species in the catches of the coastal vessels, valued at 336.5 million and 341.5 million DKK⁸ in 2012.

2.5 Employment within the coastal sector

According to Copenhagen Economics the fisheries sector generated 3,500 jobs measured as full time jobs which corresponds to 12 % of the workforce in Greenland. The figure includes jobs in the capture sector and in the seafood processing sector in 2011 (Copenhagen Economics, 2013). The two biggest companies Royal Greenland and Polar Seafood accounted for 46% and 31% of the sectors production. The two companies stated to Copenhagen Economics that they employed 1,411 on FTE⁹ in 2011.

Royal Greenland operates in the cities and since 2011 in a number of settlements after acquiring the former Arctic Green Food (AGF) plants. The AGF unit employed approximately 250 FTE jobs when it peaked. On the onshore plants there are approximately 900 production jobs whilst there are more than 600 jobs in the offshore and coastal production vessels.

⁸ Approximately 45 and 45.8 million Euros

⁹ Full Time Equivalent

During a fisheries conference in April 2014 the Department of Fisheries published a report stating that in 2013 a total of 2,773 licenses were issued (Department of Fisheries, 2014). Many of the licensees holds 1 or 2 licenses. It was also reported that 1,272 have license to Greenland halibut, another 1,073 had license to fish for cod in 2013.

KNAPK have approximately 2,200 paying members, almost all can be defined as coastal fishermen. Of those approximately 200 are from Qaanaaq (Thule), Ittoqqortoormiit and Tasiilaq in East Greenland and they are mainly seal hunters and are therefore arguably not coastal fishermen. It is the normal perception that more than 95 % of all NKAPK members are selling catches to the processing plants each year, so it is a realistic assumption that full-time coastal fishermen in Greenland are approximately 2,000.

3 Closing remarks

The coastal fleet serves an important role in the Greenlandic economy and regional / municipal development. The fleet is for the most parts non-efficient, but though stability in the national economy is a positive thing, low first-hand prices makes it difficult to do consolidation within the sector and has made it sluggish for part of the fleet to return healthy returns on their investment.

The authorities have made some attempts to favour this fleet segment, which have to a point helped the industry. It is however almost impossible to start fresh in this business, because investment costs and capital costs are simply too high. It is likely that some parts, read shrimp and Greenland halibut, of the coastal sector will experience more consolidation in the nearest future, as has happened within the larger fleet. Fewer and better equipped vessels and economics of scale seem to be emphasised. It is though clear that the coastal fleet will continue to serve a leading role in the Greenlandic fishing sector and in regional development of the country.

References

- Berthelsen, T. (2014, 02). *Article in Sermitsiaq newspaper*. Retrieved from sos:
<http://www.sermitsiaq.ag/>
- Berthelsen, T. (2014, 02). *Deputy manager of KNAPK*.
- Berthelsen, T. (2014, 2). *knapk*. Retrieved from <http://www.knapk.gl>
- Burmeister, G. (2014). *Krabberådgivning*. February .
- Copenhagen Economics. (2013, 10). *copenhageneconomics.com*.
- Danish Maritime Authority, 2. (2012). Excel doc. Købenkavn.
- Department of Fisheries. (2014, 4). *Aalisarneq Fiskeriseminar 2014*.
- Selfgovernment, G. (2010). *Government of Greenland Executive Order No. 6 of 6 May 2010 on License* .
- Statistics Greenland. (2013, 6). *Fiskeri og Fangst 2012*. Retrieved from www.stat.gl:
<http://www.stat.gl>
- Statistics Greenland. (2014). *udenrigshandel 2013*.