



**Inuit Circumpolar Council – Greenland consultation statement regarding:
EIA for 2D seismic survey off Southeast Greenland by TGS**

Nuuk, May 10, 2013

Inuit Circumpolar Council - Greenland (ICC) has reviewed the submitted Environmental Impact Assessment (EIA) of the proposed 2D seismic survey and seabed survey off Southeast Greenland. TGS-NOPEC Geophysical Company ASA (TGS) submitted this application, covering an area of up to 5000 line kilometres in license area 2012/41 and is expected to take place between 1st of June and 15th of October 2013.

GENERAL COMMENTS

ICC recommends that environmental impacts of seismic surveys taking place in several consecutive years be analysed. Furthermore ICC recommends that observations of traditional users of the area (hunters and fishers), in relation to previous years' seismic surveys, be taken into account when assessing environmental impacts of future seismic surveys.

ICC would like to emphasize that the principle of Best Available Technique (BAT) and Best Environmental Practices (BEP) should apply in any relevant cases during the execution of the project. Where there is a difference in standards, practices and demands between industry, government and international standards, BAT and BEP should always prevail as the main priority. The industry can play a unique role in offering insights into best practices in their area of expertise, and should not be afraid of taking the lead on higher environmental standards than what may be demanded by government agencies and thereby inspire a change in government policies to the better.

In the Arctic Council, there is an increasing focus on Black Carbon (BC, e.g. soot) and its localized warming effects as a short-lived climate forcer. There is also focus on Arctic Ocean Acidification as “the second CO₂ problem”, which the scientific community is stating to be real, undisputed, happening at an alarming rate, and will have consequences for Arctic marine waters - although the direct and indirect effects are not clarified yet. Both focus areas are derived effects of combustion of fossil fuels, and the Arctic Council will at its next Ministerial Meeting in Kiruna this month look into possibilities of further developing common strategies and actions to reduce these effects. The industry has their share in the responsibility of mitigating effects on the climate and ecosystems, and should therefore consider ways of best practices to reduce emissions, and use resources more efficiently on their own initiative.

SPECIFIC COMMENTS

Although not mentioned in the text, the map in figure 1-1 shows that the survey covers an area between approx. 62 and 67 degrees north. Though in the section 4.2 on Valuable Ecological Components (VECs) a SEIA is referred that covers an area north of 68 degrees.

In page 31 there's a list of important species present in the licence area. Although spawning areas for

cod off East Greenland is mentioned in the same page, cod is not considered an important species, although it is a species importance to fisheries. The reason for not including cod as an important species or a VEC, is maybe that the SEIA which the VEC list is based on, covers another area.

ICC Greenland recommends that a SEIA is made for the area off East Greenland south of 68 degrees north. Otherwise great reservations must be taken when impacts are assessed.

Later in the section on fisheries (p. 51) a section about cod fisheries begins with “Polar cod” It should say “cod”, “Atlantic cod”, when species are treated their Latin name should be spelled in order to avoid misunderstandings.

In our consultation statement regarding the EIA for the same seismic survey in SE Greenland 2012, we pointed out that the EIA didn't address the area's importance as a spawning area for cod *Gadus morhua*.

This time the EIA has a three line section mentioning that spawning areas for cod are known in the area (page 31). Nevertheless in Table 7-6 it says, “*The area is not known to be an important spawning, hatching and breeding ground to fish*”. That statement is contrary to the latest documentation of ICES:

“The recent offshore fishery has shown dense concentrations of large spawning cod off East Greenland at least since 2004. In 2007 GINR carried out an observer program onboard two Greenland trawler in April, May to document East Greenland spawning. 14,000 cod were measured and 1,000 examined for maturity. The average length was 70 cm. Cod maturity was determined according to Tomkiewicz et al. (2002). All maturity stages were recorded (non-mature 27%; maturing 23%; active spawning 36% and spent 14% spent). Length at 50% maturity was 58 cm. In April-May 2009 an Icelandic survey in East Greenland found dense concentrations of spawning cod north of 62° at the banks between “Skjoldungen” (62°30') and “Kleine Banke” (64°30'). The major contribution to the spawning biomass was made by the 2003 YC. Length at 50% maturity was approx. 60 cm which was consistent with the results in the 2007 observer program.” (ICES 2011)

ICC recommends that the licence area's importance for spawning and fisheries of cod *Gadus morhua* is taken into account in the EIA. Since cod is an important commercial species for fisheries, the precautionary principle should be used in extent. ICC Greenland recommends that, based on the known spawning occurrence, further biological studies of the prevalence of juvenile cod in the area during the seismic survey, as well as the potential impact of seismic activity on these.

In connection with this year's seismic activities, NIRAS Greenland A/S has commissioned a report with modelling of sound propagation in the waters around South and Southeast Greenland. The report gives a better view of the possible effects of seismic projects in the area. However, it mentions that there is little information on the physical environment, there is little mention of shadow and convergence zones. This is otherwise highlighted by Madsen et al. (2006) as the Arctic waters have stronger stratification that can create special convergence zones, even many miles away from the sound source (up to 12 km), where the sound pressure level suddenly can be amplified and higher frequencies than planned. This in turn may have an effect, not only on the baleen whales, but also toothed whales farther from the sound source. Whether modelling takes into account these possible convergence zones is not clear.

ICC also recommends that the possible effects of exploration activities generally, if possible, be examined in wild animals in their natural environment. If the referenced studies were from experiments carried out on animals in captivity, this should be written clearly, and these caveats

should be mentioned in the EIA reports.

It is not mentioned in the EIA nor in the non-technical summary if the ships are ice-classified. IMO Guidelines for ships operating in polar waters (IMO Guidelines for Ships Operating in Polar Waters 2009) recommends that vessels operating in the arctic should be at least of ice or polar-class. Although the guidelines are voluntary, ICC considers them as an expression of best practice.

The information on the vessels is deficient; a list of other boat data should be included as has been the case in a number of EIAs. This will make it easier to get a quick overview.

This consultation statement may be published on the Greenland Self-Government website. All ICC's statements are also available on our website www.inuit.org in Activities → Public consultations in Greenland.

ICC thank you for the continued inclusion as a consultation party, and look forward to continued cooperation.

References

Madsen, P T et al. "Quantitative measures of air-gun pulses recorded on sperm whales (*Physeter macrocephalus*) using acoustic tags during controlled exposure experiments." *Journal of the Acoustical Society of America* 120.4 (2006) : 2366-2379.

ICES North-Western Working Group report 2011 section 14.2.4 - Information on spawning:
<http://www.ices.dk/workinggroups/ViewWorkingGroup.aspx?ID=30>