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Expedited Assessment Gap Analysis

Announcement of intent to undertake an expedited assessment of the ISF Iceland Ling Fishery (ling: *Molva molva*) by means of scope extention of the certified ISF Iceland Saithe Fishery.

It is proposed the that 5 new UoAs for Icelandic lingare to be assessed in an expedited assessment under the existing certificate of the ISF Iceland Saithe Fishery, held by Iceland Sustainable Fisheries (ISF). The Icelandic ling fishery qualifies for an expedited assessment according to the MSC Fisheries Certification Requirements v.2 since:

- the new UoAs of Icelandic ling have previously been assessed under P2 of the saithe certificate as retained species in bottom trawl, Danish seine, handline, longline, gillnets and *Nephrops* trawl (*FCR 7.22.1.1*);
- the two fisheries have some assessment tree components in common (FCR 7.22.1.2); and
- both fisheries are located within the Icelandic EEZ; i.e. they are in close geographical proximity (*FCR 7.22.1.3*).

The client; ISF; which holds the valid certificate for saithe, has made a request for an expedited assessment of ling through extention of the certificate. Saithe was assessed using CR v.1.3, therefore the new UoA shall be scored using the same assessment tree.

An expedited assessment will entail assessing components of the ling fishery that are not in common with the saithe fishery. A gap analyis was undertaken in order to determine which those components are. The following components were assessed during the gap analysis: eligible fishers, management bodies, fishing methods, and geographical overlap in addition to the nine Priniciple Components identified in GFCR Table G11 (see Table 1).

The preliminary gap analysis shows that the saithe and ling fisheries have the following Principle Components in common (see Table1):

- Principle 2 Retained species
- Principle 2 Bycatch species
- Principle 2 ETP
- Principle 2 Ecosystem
- Principle 3 Governance and policy

The habitat component of the two fisheries entails habitat effects from five different fishing gears. Therefore, more detailed gap analysis was conducted for habitat PIs for each individual gear type (Table 2). There is also partial overlap of components for "Principle 3 – Fishery Specific management system" (PI3.2.1 to PI3.2.5), and more in depth analysis of each PI was conducted to determine

similarites and differences (Table 3). All habitat PI's were found to be in common with the saithe assessment and PI's 3.2.3 and 3.2.4 were also found to be held in common with saithe.

An overview of proposed actions during an expedited assessment can be found in Table 4. In summary, the preliminary gap analysis indicate that the following PIs must be considered:

- Principle 1: All PI's
- Principle 3: PI 3.2.1, PI 3.2.2, and PI 3.2.5.

Potential implications for other PI's are harmonisation issues. Other fisheries assessed in the Icelandic EEZ, using MSC Certification Requirements v. 1.3 include cod, haddock, lumpfish, golden redfish and Atlantic herring. Therefore, the need for harmonisation shall be considered during the assessment and scoring process.

Component	Unit of Assessment 1 – Saithe (<i>Pollachius virens</i>)	Unit of Assessment – Ling (<i>Molva molva</i>)	Similarities/difference
Geographical area	FAO Statistical Area 27 / ICES Va	FAO Statistical Area 27 / ICES Va	Similarities: The two stocks occur in the same area.
	Icelandic Exclusive Economic Zone	Icelandic Exclusive Economic Zone	Differences: None
Management	Ministry of Industries and Innovation	Ministry of Industries and Innovation	Similarities: The two stocks are managed by the same agency.
			Differences: None
Fishing method	Bottom trawl; Longline; Handline; Gillnets; Danish seine; Nephrops trawl	Bottom trawl; Longline; Handline; Gillnets; Danish seine; Nephrops trawl	Similarities: The two stocks are fished by the same fishing fleet.
			Differences: None
Eligible fishers	All registered Icelandic vessels that carry valid permits for fishing within the Icelandic Exclusive	All registered Icelandic vessels that carry valid permits for fishing within the Icelandic Exclusive	Similarities: The two stocks are fished by the same fishing fleet.
	Economic Zone issued by the Icelandic Directorate of Fisheries operating relevant fishing gear listed above.	Economic Zone issued by the Icelandic Directorate of Fisheries operating relevant fishing gear listed above.	Differences: None
Principle 1– Outcome	<u>Target species stock:</u> Saithe stock within Icelandic EEZ.	Target species stock: Ling stock within the Icelandic EEZ	Similarities: Reference points are defined for both species.
	<u>Management:</u> Target- and limit reference points; Fmsy, Blim and SSB trigger are defined.	Management: Target- and limit reference points; Fmsy and SSB trigger are defined.	<u>Differences</u>: The target species is different and ling has not been assessed under Principle 1.
Principle 1 – Harvest strategy	A management plan has been agreed by MII in consultation with the industry and formally adopted. The management plan has been reviewed by ICES and found to be consistent with	The overall harvest strategy is similar to saithe; i.e there is a target of Fmsy; Btrigger has been defined, and the stock is managed by TACs and other management measures as for saithe.	Similarities: The stocks are both assessed by MRI and managed by MII using similar strategies.

Table 1: Gap analysis of the proposed Icelandic ling UoA, compared to the existing certificate of Icelandic saithe held by ISF.

	the precautionary approach. The harvest strategy is responsive to the state of the stock and is designed to achieve stock management objectives reflected in the target and limit reference points.	However, there is no formally adopted management strategy for ling.	<u>Differences</u> : There is no formally adopted management plan for ling as there is for saithe.
Principle 2 – Retained species	The saithe certification considered retained species for the entire Icelandic fleet operating bottom trawl, longline, handline, gillnet, Danish seine and <i>Nephrops</i> trawl. Bait species varies, but main bait is sauri, herring or squid.	Ling is mainly fished by longline, bottom trawl and gillnets off south and west of Iceland. Annual catches are reported by around 150 longliners, 60 trawlers, 50 gillnetters and ten <i>Nephrops</i> boats (ICES WGDEEP 2012). However, catches of ling are also reported by Danish seine and handline (Vottunarstoan Tún 2014). Main bait species for longliners are sauri, herring or squid.	Similarities: The retained species for all five relevant fishing gears have already been assessed in the Icelandic saithe certification. The saithe certification included all licenced vessels in Iceland using bottom trawl, longline, handline, gillnet, Danish seine and <i>Nephrops</i> trawl. There is therefore complete overlap for "P2: Retained species". Main bait species for longliners are the same. Differences: None
Principle 2 – Bycatch species	The saithe certification considered bycatch species for the entire Icelandic fleet operating bottom trawl, longline, handline, gillnet, Danish seine and Nephrops trawl.	The bycatch species for all of relevant gear types have already been assessed in the Icelandic satihe certification. See "Principle 2 – Retained species" above.	Similarities: The saithe certification included all licenced vessels in Iceland using bottom trawl, longline, handline, gillnet, Danish seine and <i>Nephrops</i> trawl, there is therefore complete overlap for "P2: Bycatch species". Differences: None
Principle 2 – ETP	The saithe certification considered ETP species for the entire Icelandic fleet operating bottom trawl, longline, handline, gillnet, Danish seine and <i>Nephrops</i> trawl.	ETP species for all of relevant gear types have already been assessed in the Icelandic saithe certification. See "Principle 2 – Retained species" above.	Similarities: The saithe certification included all licenced vessels in Iceland using bottom trawl, longline, handline, gillnet, Danish seine and <i>Nephrops</i> trawl, there is therefore complete overlap for "P2: ETP species".

			Differences: None
Principle 2 – Habitat	Habitats affected by bottom trawl, longline, handline, gillnet, Danish seine and <i>Nephrops</i> trawl in the Icelandic EEZ were assessed	Although there is only partial overlap of fishing areas where ling and saithe are caught; all the encompassing habitat types were assessed for each gear type in the saithe assessment. However, due to the complexity of five different fishing gears, gap analysis was done for each gear separately.	s ee Table 2 Gap analysis for individual gear was undertaken for PI 2.4.1 to PI 2.4.3.
Principle 2 – Ecosystem	Saithe is part of the broad Icelandic ecological community. The saithe assessment considered retained-, bycatch-, and ETP species for the entire Icelandic fleet operating the 5 relevant gears. The assessment also considered the relevant habitat types and the entire area of operation for each gear type within the Icelandic EEZ.	Ling is contained within the broad Icelandic ecological community and ecosystem.	Similarities: Ling and saithe are both contained within the broad Icelandic ecological community and ecosystem which has been assessed in the saithe certification. There is therefore complete overlap with the saithe certification. Differences: None
Principle 3 – Governance and policy	 Overarching management framework: Icelandic regulatory/management framework. Management body: Ministry of Industries and Innovation Stakeholders: The Federation of Icelandic Fishing Vessel Owners (Landssamband islenskra utvegsmanna, LIU), The Federation of Owners of Small Fishing Vessels (Landssamband smabataeigenda), the Federation of Captains and Mates (Farmanna- og fiskimannasamband Islands, FFSI), the Icelandic Union of Marine Engineers and Metal Technicians (Felag velstjora og malmtaeknimanna, VM) and the Federation of 	 Overarching management framework: Icelandic regulatory/management framework. Management body: Ministry of Industries and Innovation Stakeholders: The Federation of Icelandic Fishing Vessel Owners (Landssamband islenskra utvegsmanna, LIU), The Federation of Owners of Small Fishing Vessels (Landssamband smabataeigenda), the Federation of Captains and Mates (Farmanna- og fiskimannasamband Islands, FFSI), the Icelandic Union of Marine Engineers and Metal Technicians (Felag velstjora og malmtaeknimanna, VM) and the Federation of 	Similarities: The ling fishery is managed under Icelandic jurisdiction as is the saithe fishery. Management is mainly conducted by three institutions; the MRI conducts research and provide advice; the MII is responsible for management, issuing of licences and quotas, and the Directorate of Fisheries, in cooperation with the Coast Guard, is responsible for monitoring and surveillance. Both fisheries are conducted entirely within the Icelandic EEZ, and therefore fully overlaps.

	Seamen (Sjomannasamband Islands), as well as organisations of those working in fish processing	Seamen (Sjomannasamband Islands), as well as organisations of those working in fish processing	Differences: None
Principle 3 – Fishery Specific management system	Local management framework: Icelandic regulatory/management framework	Local management framework: Icelandic regulatory/management framework	see Table 3 Although the local management framework is the same, there are some differences, since saithe has a formal management plan, whereas ling does not. Therefore gap analysis of individual PI's was conducted.

Component	Unit of Assessment 1 – Saithe	Unit of Assessment 2 – <u>Ling</u>	Similarities/difference
Bottom trawl	 Bottom trawl land ~35-50 thousand tonnes of saithe annually. VME's identified include Reef forming cold water coral (<i>Lophelia pertusa</i>), coral gardens, Deep-sea sponge aggregation and hydrothermal vents. Saithe fishery overlap with vulnerable habitats of corals and aggregation of large sponges. <u>Management:</u> Area closures apply to entire bottom trawling fleet. Act 97/1997 ("um veiðar í fiskveiðilandhelgi íslands"); The Nature Conservation Act no. 44/1999. International conventions; e.g. OSPAR, CITES. National strategic plan for preservation of biological diversity Monitoring by DF, Icelandic Coast Guard, VMEs, and electronic logbooks. Information: Information available through BIOICE, CORALfish, and VME. 	 Bottom trawl land ~1500 tonnes of ling annually. VME's include Reef forming cold water coral (Lophelia pertusa), coral gardens, Deep-sea sponge aggregation and hydrothermal vents. Ling fishery overlaps with corals and aggregation of large sponges. Ling fishery also potentially overlaps with one hydrothermal vent on Reykjanes ridge. Management: Area closures apply to entire bottom trawling fleet. Act 97/1997 ("um veiðar í fiskveiðilandhelgi íslands"); The Nature Conservation Act no. 44/1999. International conventions; e.g. OSPAR, CITES. National strategic plan for preservation of biological diversity Monitoring by DF, Icelandic Coast Guard, VMEs, and electronic logbooks. Information: Information available through BIOICE, CORALfish, and VME. 	Similarities: Trawl fisheries for ling and saithe potentially overlap corals and deep-sea sponge aggregation. In addition; the ling fishery potentially overlap one hydrothermal vent area. However, this area is closed and has been considered in the scoring rationales of the saithe assessment. Management strategies and information sources are the same for both fisheries. Differences: None
Danish seine	Danish seine lands ~800-1500 tonnes of saithe annually and operates in areas of relatively smooth bottom, which are not likely to be	About 350t of ling is landed by Danish seine annually and lands ling as a bycatch. Danish seine operates on relatively smooth bottom and	Similarities:ThesaithefisheryconsidersimpactoftheentireIcelandicDanishseinefleet.

Table 2: Gap analysis of Habitat for five fishing gears for the proposed Icelandic ling UoA, compared to the existing certificate of Icelandic saithe held by ISF

	 vulnerable to fishing gear impacts. Studies in Icelandic EEZ confirms limited negative impact on benthic habitats. <u>Management and information:</u> See above for bottom trawl. 	a study on Icelandic Danish seine confirms limited impact. <u>Management and information:</u> See above for bottom trawl.	Management strategies and information sources are the same for both fisheries. Differences: None
Longline	Longlines land ~500-800 tonnes of saithe annually. Scientific evidence supports limited impact of static gear such as longline. <u>Management and information:</u> See above for bottom trawl.	Longlines land ~5,900 tonnes of ling annually. Scientific evidence supports limited impact of static gear such as longline. Longliners can target different species, which varies by season and areas. They may e.g. target ling from November to April, but there is always a mixed catch. In the past ling has mainly been caught around Westman Islands. However, the fishing area has expanded in response to increased migration of the species west of Iceland due to increasing temperatures.	Similarities: The saithe fishery assessment considers total impact of longlines within the Icelandic EEZ and therefore applies to the ling longline fishery as well. Management strategies and information sources are the same for both fisheries. Although fishers may target ling at specific times, they do not employ specific practises for ling, and ling is always part of a mixed catch as is saithe. Differences: None
		See above for bottom trawl.	
Handline	Handline lands ~2-3.8 thousand tonnes of saithe annually. Scientific evidence supports limited impact of static gear such as handline. <u>Management and information:</u> See above for bottom trawl.	Handlines land ~13 tonnes of ling annually. Scientific evidence supports limited impact of static gear such as handline. <u>Management and information:</u> See above for bottom trawl.	Similarities: The saithe fishery assessment considers total impact of handlines within the Icelandic EEZ and therefore applies to the ling handline fishery as well. Management strategies and information sources are the same for both fisheries. Differences: None
Gillnets	Gillnets land ~4-8.8 thousand tonnes of saithe annually. Scientific evidence supports limited impact of static gear such as gillnets.	Gillnets land ~400 tonnes of ling annually. Scientific evidence supports limited impact of static gear such as gillnets.	Similarities: The saithe fishery assessment considers total impact of gillnets within the Icelandic EEZ and

	Management and information: See above for bottom trawl.	Management and information: See above for bottom trawl.	therefore applies to the ling longlinefishery as well. Managementstrategies and information sources arethe same for both fisheries.Differences: None
Nephrops trawl	Nephrops trawl lands ~100-500 tonnes of saithe annually. Nephrops fishing ground characterized by fine sand and mud. The main fishing grounds are in the muddy deeps and banks off South Iceland and a good distance away from vulnerable habitats typically occurring close to the continental shelf break. Scientific evidence indicates limited impact. <u>Management and information:</u> See above for bottom trawl.	Nephrops trawl lands ~760 tonnes of ling annually. Nephrops fishing ground characterized by fine sand and mud. The main fishing grounds are in the muddy deeps and banks off South Iceland and a good distance away from vulnerable habitats typically occurring close to the continental shelf break. Scientific evidence indicates limited impact. <u>Management and information:</u> See above for bottom trawl.	Similarities: The saithe fishery assessment considers the entire fishing area of <i>Nephrops</i> trawl and its habitat impacts as a whole and therefore applies to the ling longline fishery as well. Management strategies and information sources are the same for both fisheries. Differences: None

Principle Indicator	Unit of Assessment 1 – Saithe	Unit of Assessment – Ling	Similarities/difference
Pl 3.2.1 Fishery Specific Objectives	 <u>Objectives contained in:</u> Act on Fisheries Management Formally adopted management plan for saithe Ratified international conventions Biological reference points 	Objectives contained in: • Act on Fisheries Management • Ratified international conventions • Biological reference points	 Similarities: Management of the species follow the same broad objectives of sustainability. <u>Differences:</u> Saithe is managed by a formally adopted management plan. There is no formal management plan for ling.
PI 3.2.2 Fishery Specific Management	Fishery managed by TAC, reference points, and subject to annual review by ICES. There is a formally adopted management plan. Gear regulations and area closures are used to obtain objectives concerning bycatch and catch of juveniles and objectives concerning the ecosystem. Decision process involves MII, MRI and stakeholders.	Fishery managed by TAC, reference points, and subject to biennual review by ICES. There is a formally adopted management plan. Gear regulations and area closures are used to obtain objectives concerning bycatch and catch of juveniles and objectives concerning the ecosystem. Decision process involves MII, MRI and stakeholders.	 Similarities: Both fisheries are managed by TAC, and reference points. Decision making processes are the similar. <u>Differences:</u> Saithe is managed by a formally adopted management plan, whereas ling is not. There are also differences in ICES review, annual vs. biennial.
PI 3.2.3 Monitoring, Control and Surveillance	 A comprehensive monitoring, control and surveillance system (MCS) is in place, with inspections at sea and at landing sites. A satellite based vessel monitoring system is used to scrutinize the activities of all vessels. DF receives logbook data and data on landings weighed authorized scales. Data is reported electronically in real time. Sanction to deal with non-compliance in place. High degree of compliance within Icelandic management system. 	 A comprehensive monitoring, control and surveillance system is in place, with inspections at sea and at landing sites. A satellite based vessel monitoring system is used to scrutinize the activities of all vessels. DF receives logbook data and data on landings weighed authorized scales. Data is reported electronically in real time. Sanction to deal with non-compliance in place. High degree of compliance within Icelandic management system. 	<u>Similarities:</u> MCS system is the same for both fisheries. Differences: None

Table 3: Gap analysis of Fishery specific managment PIs for the proposed Icelandic ling UoA, compared to the existing certificate of Icelandic saithe held by ISF

	 Directorate of Fisheries reports on offences and sanctions in their annual reports. 	 Directorate of Fisheries reports on offences and sanctions in their annual reports. 	
PI 3.2.4 Research Plan	Research and progress plan for MRI covering 2012 to 2016	Research and progress plan for MRI covering 2012 to 2016	Similarities: Research plan is the same for both fisheries. Differences: None
PI 3.2.5 Review of management system	 Several external review of MRI methods MII and DF subject to review by Parliament (Althing) committees. Review by The Icelandic National Audit Office MRI research published in in peer reviewed scientific journals Overall performance of the management regime is examined annually, including assessment of stock status and feeding ecology. The management plan for the fishery has been externally reviewed by ICES. 	 Several external review of MRI methods MII and DF subject to review by Parliament (Althing) committees. Review by The Icelandic National Audit Office MRI research published in in peer reviewed scientific journals Overall performance of the management regime is examined annually, including assessment of stock status and feeding ecology. 	 Similarities: The fisheries have most review processes in common, apart from ICES review of the management plan. <u>Differences:</u> The management plan for saithe has been reviewed by ICES. There is no formally adopted management plan for ling.

Performance Indicator	Proposed action during scope extension	
1.1.1. Stock Status	To be assessed	
1.1.2. Reference Points	To be assessed	
1.1.3. Stock Rebuilding	To be assessed	
1.2.1. Harvest Strategy	To be assessed	
1.2.2. Harvest Control Rules and Tools	To be assessed	
1.2.3. Information and Monitoring	To be assessed	
1.2.4. Assessment of stock status	To be assessed	
2.1.1. Retained species outcome	No new assessment	
2.1.2. Retained species management	No new assessment	
2.1.3. Retained species information	No new assessment	
2.2.1. Bycatch species outcome	No new assessment	
2.2.2. Bycatch species management	No new assessment	
2.2.3. Bycatch species information	No new assessment	
2.3.1. ETP species outcome	No new assessment	
2.3.2. ETP species management	No new assessment	
2.3.2. ETP species information	No new assessment	
2.4.1. Habitat outcome	No new assessment	
2.4.2. Habitat management	No new assessment	
2.4.3. Habitat information	No new assessment	
2.5.1. Ecosystem outcome	No new assessment	
2.5.2. Ecosystem management	No new assessment	
2.5.3. Ecosystem information	No new assessment	
3.1.1. Legal and customary framework	No new assessment	
3.1.2. Consultation roles and responsibilities	No new assessment	
3.1.3. Long term objectives	No new assessment	
3.1.4. Incentives for sustainable fishing	No new assessment	
3.2.1. Fishery specific objectives	To be assessed	
3.2.2. Decision making processes	To be assessed	
3.2.3. Compliance and enforcement	No new assessment	
3.2.4. Research plan	No new assessment	
3.2.5. Monitoring and management performance evaluation	To be assessed	

Table 4: Overview of proposed action during a expedited assessment of the Icelandic ling fishery.