

Harvard Law School's Program on Negotiation's Arctic Fisheries Devising Seminar: Themes and Questions

Stakeholder	Question 1: New Risks to Arctic Fisheries ("Risks")	Question 2: Protecting Fish Stocks ("Protection")	Question 3: Gaps in Scientific Knowledge ("Science")
National Governments	<ul style="list-style-type: none"> •Ocean acidification •Increased navigation •Longer fishing seasons •New, more aggressive fishing technology •Invasive species •Impacts on subsistence fishing •IUU fishing 	<ul style="list-style-type: none"> •No protection needed in Central Arctic •Protect sensitive areas •Moratorium on fishing until more research is done •Moratorium should be put in place only when there is a clear need •Any protection should not be permanent •RFMO to manage the central Arctic •New RFMO for each new fishery that emerges 	<ul style="list-style-type: none"> •Many scientific gaps •Research not well coordinated •Need for baseline data and stock assessments •Questions about impacts of climate change •Develop capacity to monitor Arctic •Standardize monitoring domestically and internationally •Coordinate monitoring efforts •Questions about changing sea ice •Questions about effect of environmental changes on Arctic food chain •Questions about effect and toxicity of oil spills in the Arctic •Conduct scientific fishing
Fishing Industry	<ul style="list-style-type: none"> •Lack of monitoring •Disruption of food chain due to climate change and fishing in new areas •Ineffective management of new stocks •Submarine radio waves 	<ul style="list-style-type: none"> •More research needed before fishing occurs •Do not ban fishing in the Arctic Ocean •Concern about commercial fishing on red feed •Open up conversation about whaling 	<ul style="list-style-type: none"> •Scientists should collaborate with fishermen to collect data •Questions about impacts of commercial fishing on red feed
Indigenous/Human Rights	<ul style="list-style-type: none"> •Fisheries moving north •Impacts on subsistence fishers 	<ul style="list-style-type: none"> •Continue North Pacific Fisheries Group moratorium on fishing •No protection currently needed •Do not develop commercial fisheries in the Bering Strait 	<ul style="list-style-type: none"> •Questions about ice movement •Questions about interactions of commercial fisheries and subsistence fishing •Improve delivery of science to indigenous communities
Oil and Gas Industry	<ul style="list-style-type: none"> •Industrial scale fishing fleets in central Arctic waters 	<ul style="list-style-type: none"> •Oil and gas industry cooperates with fisheries, and should continue to do so •More research needed to identify where protection is needed •Protect "true Arctic species" 	<ul style="list-style-type: none"> •Need more research on continental shelves and deep ocean in Arctic •Need temporal and spatial data to allow trend analysis •Identify key spawning areas •Questions about oil and gas resources and feasibility of accessing them
Multilaterals	<ul style="list-style-type: none"> •Changes underway in sub-Arctic fisheries •Oil and gas development •Increased navigation •Expanded fishing •Ineffectiveness of fisheries management organizations •Failure of involved countries to reach agreement on management •Ocean acidification •Fresh water flowing into the central Arctic •Pollutants •Migration of fish stocks 	<ul style="list-style-type: none"> •Should be no bans on fishing in the Arctic •Some protection probably needed •Protection should be put in place while research is done 	<ul style="list-style-type: none"> •Questions about climate change impacts on migration of fish stocks •How much emphasis should be put on indigenous vs. western scientific knowledge? •More international collaboration on research needed •Take an ecosystem approach to research
NGO/Environmental	<ul style="list-style-type: none"> •Changing conditions •Lack of knowledge •Shipping •Oil and gas development •Warmer waters •Movement of fish into unmanaged waters •Navigation and acoustic surveys •Impacts on spawning grounds •Ocean acidification •Oil spills •Pollution 	<ul style="list-style-type: none"> •Protect Arctic before overfishing occurs •Moratorium in the CAO until ecosystem is better understood •Need longer-term management plans •Protect sensitive areas and habitats •Prevent development of an unregulated fishery 	<ul style="list-style-type: none"> •Need to understand dynamics of particular fish species •Need to understand threats to fisheries •Need better understanding of Arctic food web •Questions about how things will change due to climate change •Need to take broader ecosystem research •Cross-disciplinary collaboration needed
Science	<ul style="list-style-type: none"> •Commercial fishing in new areas •Energy development •Lack of science/data 	<ul style="list-style-type: none"> •Moratorium until we better understand Arctic ecosystem •Ban is not be best approach, often not effective 	<ul style="list-style-type: none"> •Questions about Arctic zooplankton community •Questions about how fisheries function under different conditions •Take an ecosystem approach to research and management