<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Question 4: Need for new monitoring systems (“Monitoring”)</th>
<th>Question 5: Concerns of indigenous communities (“Indigenous communities”)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Governments</td>
<td>• More monitoring is needed • Improve use of satellite technology • VMS is currently the most reliable system • RFMOs do not share data with scientists • Need to impose fees to pay for monitoring • Require monitoring for gas and oil exploration • Need to prioritize monitoring needs • Cooperation among countries and other stakeholders needed • Incorporate indigenous knowledge into monitoring efforts • Monitoring is disjointed • Funding is a major consideration and potential constraint</td>
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<tr>
<td>Fishing Industry</td>
<td>• Put scientists on fishing vessels • Cooperate with oil monitoring systems • Improve use of satellite technology • Better monitoring allows for better response to threats</td>
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<tr>
<td>Indigenous/Human Rights</td>
<td>• Better monitoring of catch needed • Marine mammal hunter and indigenous people should play a key role in monitoring</td>
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<tr>
<td>Oil and Gas Industry</td>
<td>• Use key species to monitor ecosystem health • Improve use of satellite imagery and remote sensing technology • Arctic nations should govern how Arctic monitoring should take place</td>
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<tr>
<td>Multilaterals</td>
<td>• Regular monitoring needed to understand changes at ecosystem level • Lack of coordination on research and monitoring • Need more collaboration among organizations currently collecting data • The A5 need an agreement around information sharing and monitoring coordination</td>
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<tr>
<td>NGO/Environmental</td>
<td>• Better monitoring needed • VMS exists throughout the Arctic, but is problematic • Need monitoring to prevent IUU fishing • Either a new organization or an existing one (e.g., AMAP) should coordinate monitoring</td>
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<tr>
<td>Science</td>
<td>• Need more systematic data collection • Focus on coordinating monitoring and data collection across countries</td>
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- Indigenous interests are important
- Indigenous knowledge can be useful
- Greenland is a good model of incorporating indigenous knowledge into policy
- Indigenous knowledge is helpful but has limitations
- Integrating indigenous knowledge and western science is challenging
- Indigenous people see things that seasonal researchers do not
- Arctic Council generally does a good job of incorporating indigenous perspectives
- Indigenous knowledge is not keeping up with climate change
- Indigenous knowledge should be incorporated into decision-making and early warning systems
- Indigenous knowledge is particularly helpful for ecological understanding
- Indigenous knowledge is less useful in determining stocks and quotas
- There is not indigenous knowledge about the central Arctic
- Indigenous livelihoods have to be protected
- Indigenous knowledge should be integrated into management decision about coasts, but not the central Arctic
- Local knowledge helpful for identifying local spawning grounds
- Indigenous standing in Arctic decision-making should not be equal to states
- Protecting indigenous interests is important
- Indigenous knowledge cannot contribute much to the management of commercial Arctic fisheries
- Using indigenous knowledge in management decisions
- Indigenous people should have more say in ocean management
- Need to better inform indigenous peoples about fisheries issues and changing conditions
- Indigenous people should be asked this question
- Competition from industrial scale fishing is a key concern for indigenous people
- Indigenous knowledge is valuable for ecosystem understanding
- Oil and Gas industry works together with indigenous people on whale and seal issues
- Overfishing very problematic for indigenous communities
- Tension between conservation groups and indigenous groups
- Respect of indigenous fishing rights is a major concern in Canada
- Hard to document where traditional knowledge is having an effect on practice
- Indigenous knowledge is used in tracking halibut in Greenland
- Indigenous people do not have anything to do with commercial fisheries
- Indigenous people’s interests should not be affected by new development in the central Arctic
- Indigenous people are key stakeholders in the Arctic
- Some environmental organizations are working directly with indigenous peoples
- Local communities (not just indigenous people) should have a say in fisheries management
- Need to ensure subsistence needs are met as commercial fisheries move north
- Changes in Arctic will affect indigenous communities
- Indigenous people should play a very significant role in Arctic decision-making
- Indigenous people a key stakeholder in the Arctic
- Scientists should take indigenous peoples’ knowledge into account