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# Helping the Arctic Council Find Its True North

Priorities for Secretary Kerry as He Prepares to Take on the Chairmanship of the Arctic Council

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By Cathleen Kelly, Michael Conathan, and Vikram Singh      April 2014



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# Introduction and summary

For millennia, the Arctic has lain beneath a blanket of ice and snow—an ocean locked out of all interaction with the rest of the world, save subsea currents and icebreaking marine mammals. Yet in recent decades, rapid declines in ice coverage due to global climate change have begun to unlock what may be the world’s last undisturbed vault of natural resources, potentially opening trade routes dreamt of by explorers since the late 15th century. The opening of the Arctic has already begun to stimulate economic development, and the changes at the top of the world present massive global challenges.

In the Arctic, which is warming two times faster than any other region on Earth, the effects of climate change are staggering.<sup>1</sup> Arctic sea-ice volume has shrunk by 75 percent since the 1980s, and we are very likely to see ice-free summers by mid-century.<sup>2</sup> These and other rapid changes directly affect the livelihoods, infrastructure, and health of the 4 million people who live in the region and have economic, environmental, geostrategic, and national security implications for the United States and the world.<sup>3</sup>

Despite growing interest in capitalizing on the region’s rich and increasingly accessible resources, the profound changes in the Arctic pose grave risks and high costs to America and the planet. For example, melting sea ice in the Greenland Arctic is speeding up global sea-level rise; increasing flood risks; and endangering infrastructure and communities in coastal cities such as Miami, New York, and many others.<sup>4</sup>

Just five nations border the Arctic Ocean—Canada, Norway, Russia, the United States, and Denmark, via its dominion over Greenland. In 1996, they joined forces with Finland, Iceland and Sweden\* and established the Arctic Council, an international body designed to address emerging challenges in the region.<sup>5</sup> The chairmanship of the Arctic Council rotates among them, and in 2015, the United States will take its turn at the top when Secretary of State John Kerry assumes the role. By any metric, climate change is the key driver of growing commercial interests and serious environmental and economic risks in the region and around the globe. For this rea-

son, Secretary Kerry should establish climate change as the overarching theme of his Arctic Council chairmanship. As chairman, he should also seek to conserve invaluable Arctic marine and coastal ecosystems, ensure global security by minimizing potential conflicts in the region, and promote sustainable Arctic development that will allow Arctic communities to become more resilient and prosperous.

The federal government should also seize this opportunity to raise the domestic profile of Arctic issues and strengthen our presence in this emerging and vital region. This should include expansion of America's capabilities to manage Arctic oil spills and other disasters, including through our icebreaker fleet, navigation and communication satellites, ports, and other infrastructure needed to support emergency preparedness and response.<sup>6</sup>

The United States is taking steps to respond to the challenges and opportunities of a rapidly changing Arctic, but more action is needed. President Barack Obama's National Strategy for the Arctic Region, the White House's Arctic Strategy Implementation Plan, the Department of Defense 2013 Arctic Strategy, and the U.S. Navy Arctic Roadmap for 2014 to 2030 identify a suite of actions through which to advance national and international security, pursue responsible environmental stewardship, and strengthen international cooperation in the region.<sup>7</sup> Consistent with these priorities, as well as with the president's Climate Action Plan, Secretary Kerry should seize the opportunity to set an ambitious agenda to combat climate change. To implement it, he should work closely with Canada—the current Arctic Council chair—to secure black carbon emission reduction commitments at the 2015 Arctic Council ministerial-level meeting. Lastly, President Obama should convene a presidential Arctic summit for Arctic Council members and observers in 2016 to make rapid progress on the priority initiatives described below.

In this report, we recommend these actions and more. We propose policy initiatives that can be implemented domestically, as well as specific guidance to lead the Arctic Council to new and improved international policy standards. First, we provide a brief background on the rationale for urgent action in the Arctic region. We then provide specific guidance for both Arctic Council and U.S. domestic initiatives in the following three categories:

1. **Establish climate change as the overarching theme of Secretary Kerry's chairmanship term.** Reduce Arctic warming by centering the 2015–2017 Arctic Council agenda on the effects of global climate change and the efforts to combat it.

**2. Reduce climate change and build resilience in the Arctic region.** The following attainable goals focus on reducing Arctic warming and strengthening community resilience in the region. Meeting these goals should be a top priority for Secretary Kerry during his chairmanship.

- Reduce black carbon emissions in and beyond the Arctic region.
- Reduce methane emissions in and beyond the Arctic region.
- Expand Arctic communities' access to energy efficiency and renewable energy.
- Strengthen Arctic communities' resilience.
- Expand Arctic climate change research and information sharing.
- Ensure safe and clean Arctic transportation.
- Expand the commercial fishing moratorium to all Arctic Council nations and collaborate on fisheries research.
- Establish protected areas in the Arctic and conserve the region's unique and climate-sensitive wildlife.

**3. Take domestic actions to support Arctic leadership.** The following unilateral steps will both help the United States drive an ambitious Arctic Council agenda centered on climate change and prepare the United States to better manage Arctic challenges going forward.

- Freeze U.S. oil and gas drilling in the Arctic Ocean.
- Connect the U.S. public to the Arctic people and the value of a healthy climate and marine and coastal environments in the region.
- Ensure a peaceful, safe, and stable Arctic.
- Ratify the U.N. Convention on the Law of the Sea.

These recommended priorities were developed through collaboration between members of multiple policy teams at the Center for American Progress, including leaders on the Energy, Public Lands, Ocean, and National Security and International Policy teams.

# Priority initiatives

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Establish climate change as the overarching theme of Secretary Kerry's chairmanship term

No matter how you look at it, climate change is the key driver of accelerating Arctic commercial interests and deep environmental and economic risks both regionally and globally. The Greenland Ice Sheet has melted at unprecedented rates during summer months over the past several decades. If this 656,000 square-mile slab of thick ice—roughly three times the size of Texas—collapses, authors of a study published in the journal *Scientific Reports* estimate that the sea level will rise by roughly 25 to 30 feet, with devastating consequences for coastal communities.<sup>8</sup> In a recent analysis in the journal *Nature*, experts predict that the release of 50 gigatons of methane from thawing permafrost beneath the East Siberian Sea will trigger more extreme storms, floods, droughts, and other climate change impacts over the next 10 years. Those events will leave in their wakes an estimated \$60 trillion in damage, an amount that approaches the annual value of the entire global economy in 2012—roughly \$70 trillion.<sup>9</sup> The authors conclude that the total cost of climate change in the Arctic will be even higher and will far exceed the expected—and still highly speculative—\$2.7 trillion economic gain of increasing Arctic oil, coal, and other mineral extraction. As Shell Oil's 2012 experience in the Arctic waters of Alaska showed, accessing and extracting some of those resources may well be economically unfeasible.<sup>10</sup>

Reducing Arctic warming is imperative to prevent catastrophic global climate change. It is also essential to develop the region sustainably, build resilient and prosperous Arctic communities, and conserve high-value Arctic marine and coastal environments and regional wildlife threatened by climate change. For these reasons, a climate change-focused theme for the Arctic Council would tie into Canada's current theme of "development for the people of the North," with a focus on responsible Arctic resource development, safe Arctic shipping, and sustainable circumpolar communities. To further demonstrate U.S. leadership in addressing climate change, President Obama should announce a climate change

theme for the 2015–2017 Arctic Council agenda at the September 2014 U.N. Climate Summit in New York City, led by U.N. Secretary-General Ban Ki-moon.<sup>11</sup> He should also host a presidential Arctic summit for Arctic Council members and observers in 2016 to make near-term progress on the priority initiatives described below. The White House is currently considering hosting such a summit to celebrate the 20th anniversary of the Arctic Council.<sup>12</sup>

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## Reduce climate change and build resilience in the Arctic region

### Reduce black carbon emissions in and beyond the Arctic region

Black carbon—a component of soot produced by inefficient diesel cars and trucks, shipping, wood-fired stoves, burning agricultural waste and coal, and forest fires—is a dangerous heat-trapping air pollutant. Although black carbon only stays in the atmosphere for days to weeks, it is a potent driver of global climate change, second only to carbon dioxide as a contributor to warming.<sup>13</sup> Given the short lifespan of black carbon in the atmosphere, immediate cuts in black carbon emissions can significantly reduce warming in the short term. Black carbon is particularly harmful in the Arctic.<sup>14</sup> It peppers the Arctic snow with heat-absorbing black particles, reducing the amount of heat reflected away from the Earth by the region’s white snowpack. These effects are rapidly accelerating local warming and snow and ice melt.<sup>15</sup>

Building on the May 2013 Kiruna Declaration by Arctic Council Ministers and the February 2013 recommendations from Arctic Nation environment ministers, Secretary Kerry should aim to rein in black carbon emissions in and beyond the Arctic region as Arctic Council chairman.<sup>16</sup> He can do this by securing from Arctic Council members at their 2015 ministerial meeting national black carbon emission reduction targets and an Arctic-wide, aspirational, black carbon goal.<sup>17</sup> Secretary Kerry, together with the leaders of other Arctic Council nations, should also strongly urge Arctic Council observers—including China, India, Japan, South Korea, the United Kingdom, and EU member countries, among others—to adopt black carbon emission reduction goals.<sup>18</sup> Lastly, the United States should lead an effort to strengthen the draft International Maritime Organization, or IMO, Polar Code—a mandatory international code of safety for ships operating in polar waters that is expected to be finalized in 2014—to include limits on black carbon emissions.<sup>19</sup>



The United States is in a strong position to lead an Arctic Council effort to reduce black carbon emissions. In February 2012, the United States launched the Climate and Clean Air Coalition, or CCAC, which is featured in the president's Climate Action Plan.<sup>20</sup> In addition, U.S. emissions from mobile diesel engines, which represent more than half of all U.S. black carbon emissions, are projected to decline by 90 percent by 2030 as a result of existing regulations for new engines and retrofit programs for mobile diesel engines.<sup>21</sup> Lastly, in his January 2014 State of the Union address, President Obama called on the Environmental Protection Agency, or EPA, and the Department of Transportation, or DOT, to set the next round of fuel-efficiency standards for medium- and heavy-duty vehicles by March 2016.<sup>22</sup>

### Reduce methane emissions in and beyond the Arctic region

Methane emitted from oil and natural gas production, agriculture, and landfills is also a major driver of Arctic and global warming.<sup>23</sup> As Arctic Council chairman, Secretary Kerry can help raise public awareness of this link and take several actions to lower methane emissions both within and beyond the Arctic region:

- Secure national and Arctic-wide methane emission reduction commitments from Arctic Council members by 2016. This is consistent with the Kiruna Ministerial agreement to achieve methane emission reductions in the Arctic, and it would build on the work of the Arctic Council's Task Force for Action on Black Carbon and Methane.<sup>24</sup>
- Lead an effort to create and widely disseminate a consolidated best-practice guide for methane capture and transport and to minimize fugitive methane emissions from oil and natural gas production both in and outside the Arctic. Such an effort could help widely publicize the economic case for methane emissions control and leverage the expertise within the U.S. Department of Interior and the CCAC Oil and Gas Methane Partnership.<sup>25</sup>
- Work closely with other Arctic Council nations to encourage oil and gas companies to join the CCAC's Oil and Gas Methane Partnership.

- Work with other Arctic Council nations to prioritize and expand collaborative research and monitoring of the potential for Arctic warming to release the vast stores of methane currently frozen beneath the sea floor or locked in Arctic permafrost.<sup>26</sup> Such an effort should also identify key data gaps and support ministerial-level agreement on actions to reduce the release of methane from frozen deposits both on land and under the ocean.

The United States is in a strong position to lead the above actions to cut methane emissions both in and outside the Arctic. In addition to launching the CCAC in 2012, the White House released an interagency strategy to limit U.S. methane emissions in March 2014, as promised by the president in his Climate Action Plan.<sup>27</sup> The Bureau of Land Management also recently announced that it will update its regulations to curb the venting and flaring of methane from oil and gas development on public lands.<sup>28</sup>

### Expand Arctic communities' access to energy efficiency and renewable energy

The United States should seek to improve the quality of life and resilience to climate change and other shocks in Arctic communities and support the region's economic growth by expanding its access to energy efficiency and renewable energy resources. Energy efficiency, particularly more energy-efficient buildings, is the most cost-effective way to reduce energy consumption and save consumers money and should be a top priority for Arctic nations, which have cold climates and generally deal with high energy costs. This is especially true in remote, rural areas that rely exclusively on expensive diesel fuel for electricity generation and home heating. Alaska alone has more than 200 rural communities,<sup>29</sup> and renewable energy resources—such as wind, biomass, geothermal, small-scale hydroelectric power, and solar—could stabilize and reduce their electricity costs over the long term. Renewable energy generation and energy efficiency measures would also provide local employment and keep money in local communities.

In 2010, Alaska's state legislature set a goal of meeting 50 percent of its electricity needs through renewable energy by 2025 and established a target of reducing energy consumption per capita by 15 percent by 2020.<sup>30</sup> In 2013, hydropower already provided more than 20 percent of Alaska's electricity mix. However, wind power installations have increased quickly since the state established a Renewable Energy Fund in 2008, and Alaska now leads the world in "wind-diesel hybrid" system technology, with more than 20 remote, isolated communities replacing

millions of dollars worth of diesel with wind power every year.<sup>31</sup> Through state-supported residential energy efficiency programs, Alaskan consumers are saving \$45 million per year in energy costs.<sup>32</sup>

Denmark, Finland, and Sweden have also set renewable energy targets and have already made great strides in reaching them.<sup>33</sup> In fact, Sweden met its target of 50 percent renewable energy use eight years early, reaching 51 percent renewables in 2012.<sup>34</sup> Iceland's electricity system runs exclusively on hydropower and geothermal, while Norway gets about 97 percent of its electricity from renewable sources.<sup>35</sup>

To meet the goals and targets set by Arctic nations, including those in Alaska, long-term financing programs for clean energy development are key. During Secretary Kerry's tenure as Arctic Council chairman, the United States should urge all Arctic nations to develop stable, long-term funding mechanisms for Arctic energy efficiency and renewable energy programs. These programs should provide financing for building weatherization, emerging energy technologies, and renewable energy projects, including expanding access to clean energy to remote Arctic villages through grants and low-cost loans.

The United States should lead this effort by fully leveraging and expanding existing state and federal funding programs to support energy efficiency, emerging energy technologies, and renewable energy programs in the Alaskan Arctic. Alaska's Renewable Energy Fund currently depends on annual appropriations from the state legislature; it has not reached its intended goal of providing \$50 million in funds annually in five out of the six years since its creation, appropriating \$227.5 million since 2008 despite a total \$339.2 million in recommended appropriations for that period.<sup>36</sup>

The federal government can play an important role in accelerating the development of emerging clean energy technologies in Alaska. In 2010, the Alaskan legislature established the Emerging Energy Technology Fund, or EETF, to support the development of new technologies that could become commercially viable within five years.<sup>37</sup> These include tidal and wave energy, in-river hydrokinetics, electric transportation, energy storage, and advanced building design. The EETF program would greatly benefit from a federal match program as state legislators are considering how to keep it funded in spite of shrinking state revenues.<sup>38</sup> The U.S. Department of Energy could provide stability and predictability to the program by partnering with the Alaska Energy Authority to provide matching funds through its Advanced Research Projects Agency-Energy.

Additionally, Alaska's rural electric cooperatives should be encouraged to take advantage of the U.S. Department of Agriculture's Energy Efficiency and Conservation Loan Program, which was recently implemented to provide rural utilities with up to \$250 million to lend to residential and commercial customers for energy efficiency improvements and renewable energy systems.<sup>39</sup> Greater federal investment in clean energy technologies in Alaska and more broadly would accelerate clean energy deployment, reduce energy waste and carbon pollution, increase community resilience, and help meet other goals in President Obama's Climate Action Plan.<sup>40</sup> It could also lead to rapid advancements in emerging clean energy generation and building technologies that can be used within microgrids—modern, small-scale electricity grids—across the planet.

### Strengthen Arctic communities' resilience

Alaskan temperatures are climbing twice as fast as the national average, melting sea ice that once protected the state's coastal communities from fierce storms and surging icy waters. Now unshielded by sea ice, the Alaskan coastline is quickly eroding and coastal villages such as Shishmaref, Kivalina, and Newtok are literally falling into the sea.<sup>41</sup> The Army Corps of Engineers estimates the cost of moving Shishmaref alone to be roughly \$180 million.<sup>42</sup> The Government Accountability Office indicates that more than 180 Alaskan Native villages are "affected to some degree by the growing impacts of climate change—which include melting polar ice, increasing storm intensity, and coastal flooding."<sup>43</sup> Highways, railroads, airports, and other infrastructure are beginning to buckle and crumble as once-frozen permafrost thaws. The growing instability of the region's permafrost will add between \$3.6 billion and \$6.1 billion to infrastructure maintenance over the next 20 years.<sup>44</sup>

Climate change is also damaging valuable marine and coastal environments and local fish populations, threatening the livelihoods and cultures of Alaskan Natives.

Recognizing that the rapid changes in the Arctic have profound implications for the well-being of the Arctic people, the Arctic Council's Arctic Resilience Report project is identifying the potential for climate shocks and evaluating strategies through which governments and communities can adapt.<sup>45</sup> Building Arctic community resilience is also a priority for Sen. Mark Begich (D-AK) and Sen. Lisa Murkowski (R-AK). Sen. Murkowski stated in a recent letter to President Obama that "As the United States prepares to assume the Chairmanship of the Arctic Council, it is essential we are prepared to address adaption issues in our own Arctic communities."<sup>46</sup>

Fortunately, increasing community resilience is cost effective. Every \$1 that the Federal Emergency Management Agency, or FEMA, invests in resilience and in actions to reduce disaster losses saves the nation \$4 in disaster-recovery costs.<sup>47</sup> In Alaska, some villagers spend more than 50 percent of their take-home pay on imported fossil fuels. Expanding access to clean energy and energy-efficient homes and buildings would substantially reduce energy costs, increase household incomes, and strengthen community resilience to economic and climate change-related shocks.<sup>48</sup>

When Secretary Kerry becomes the Arctic Council chairman, the United States should expand support to Arctic communities to help them adapt to growing climate change risks to their members and infrastructure; we should also seek similar commitments from other Arctic nations. As we discuss above, the United States and other Arctic nations should also invest in expanding access to energy efficiency and renewable energy resources in Alaska and other Arctic communities. These actions would directly support the climate-preparedness pillar of the president's Climate Action Plan and reduce future extreme weather and other climate change damages to Arctic infrastructure and communities.

### Expand Arctic climate change research and information sharing

The Obama administration has taken strides toward improving the sharing of Arctic climate change data among federal, state, native, and private partners, including through the establishment of a new Climate Science Center in Alaska.<sup>49</sup> In addition, the Arctic Council's Arctic Monitoring and Assessment Program provides scientific information on the status of threats to the Arctic, including climate change, ocean acidification, and pollution in the region.<sup>50</sup> Building on these efforts, the United States should lead an initiative to vastly improve our understanding of the local and global effects of a warming Arctic. Such an initiative could support better collection and sharing of scientific data and analysis across all Arctic Council nations. Through joint investments from other Arctic Council nations, this initiative could also support continuous satellite monitoring of the Greenland Ice Sheet to better identify and predict melting and the corresponding sea-level rise.

## Ensure safe and clean Arctic transportation

Maritime traffic in the Arctic is anticipated to increase as sea ice retreats and trans-Arctic shipping routes become more accessible. The Arctic region is not prepared for such a rapid increase in shipping activity, and there is great need for navigational safety measures to protect ships, their crews, and the environment. The IMO recognizes this challenge and is working toward finalizing a Polar Code in 2014 to improve the safety and environmental performance of ships operating in the polar regions.<sup>51</sup>

The United States has opportunities through leadership in the Arctic Council's Protection of the Arctic Marine Environment Working Group and as an individual Arctic state to head the development and passage of a strong IMO Polar Code.<sup>52</sup> Specifically, the United States should advocate significantly strengthening the environmental safeguards in the IMO's draft Polar Code and addressing well-known risks of commercial shipping by taking the following actions:

- Prohibiting heavy-grade fuel oils in the Arctic. Such a ban is currently in place for the Antarctic.<sup>53</sup>
- Regulating black carbon.
- Managing ballast water releases, which can introduce mollusks and other damaging, invasive species into the Arctic region.

Once the Polar Code is finalized, the United States should encourage Arctic Council members and observers to swiftly implement and enforce it, potentially as early as 2016.<sup>54</sup>

U.S. leadership on the actions above would make a profound contribution toward safeguarding the Arctic environment for decades to come, as it would set a strong baseline code of safety, environmental protection, and conduct for all Arctic mariners before trans-Arctic navigation becomes common practice.

## Expand the commercial fishing moratorium to all Arctic Council nations and collaborate on fisheries research

Fisheries scientists know very little about the composition, populations, or ecology of the Arctic's marine biodiversity because historic ice coverage, as well as the lack of commercial fishing activity in the region, has made research expensive and difficult to justify. Even less is known about the extent to which climate change and sea-ice loss threaten fish populations and marine ecosystems in the Arctic Ocean, though indirect evidence suggests that it could be significant. For example, in better-studied areas such as the North Atlantic, scientists have concluded that half of the fish stocks, including commercially valuable species, are already shifting in response to oceanic warming.<sup>55</sup> Commercial fishing in the midst of dramatic climate changes could further imperil already strained populations, and the crash of any single species in the Arctic Ocean would likely have ecological ramifications that would extend beyond the Arctic's political boundaries. This possibility led the United States to adopt an Arctic commercial fishing moratorium in 2009.<sup>56</sup> Canada and Denmark have since followed suit with moratoria of their own,<sup>57</sup> and all five Arctic nations have agreed in principle to work toward a ban in the area of the Arctic Ocean outside national jurisdiction. Critically, however, this agreement does not include a ban in Russia or Norway's exclusive economic zones, or EEZs.<sup>58</sup>

The United States should continue to lead efforts to convince Russia and Norway to establish commercial fishing moratoria in their EEZs. Furthermore, given that the Arctic may become ice free during summers in the coming decades, Secretary Kerry should engage observer nations at the Arctic Council to help achieve the goal of expanding the reach of the moratoria to international polar waters.

In addition, building on ocean acidification research by the Arctic Council's Arctic Monitoring and Assessment Program and the National Oceanic and Atmospheric Administration's, or NOAA's, existing Arctic Ecosystem Integrated Survey in the northern Bering and Chukchi Seas, the United States should champion an expansion of investments by Arctic Council members and observers in scientific research, data sharing, and coordination to improve understanding of Arctic marine biodiversity. We should give particular attention to the ongoing shifts in Arctic marine ecology and commercially valuable fish species that are being driven by warming in the region, as well as best practices to manage fisheries in light of these shifts.<sup>59</sup>

## Establish protected areas in the Arctic and conserve the region's unique and climate-sensitive wildlife

Climate change and development pressures redouble the need to set aside high-value lands and waters in the Arctic that are essential for the survival of Arctic wildlife and support the livelihoods and cultures of Arctic people. Arctic Council members should build upon current efforts to preserve existing protected areas, and extend new protections to highly sensitive areas and areas of high value to local indigenous or resource-dependent people, at risk of industrial development. The United States can continue to demonstrate leadership in this area by highlighting the recently developed management plan for the National Petroleum Reserve-Alaska, which sets aside nearly half of the 23 million acre area for conservation.<sup>60</sup>

In addition, the United States is a leader in the conservation of Arctic wildlife species, from its work to conserve the polar bear through the Endangered Species Act to its protection of the caribou habitat in the Arctic National Wildlife Refuge.<sup>61</sup> It can demonstrate continued leadership by heading an initiative within the Arctic Council to identify shared species of concern on which Arctic nations can work together, in both domestic and international forums, to advance shared conservation goals.

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## Take domestic actions to support Arctic leadership

### Freeze U.S. oil and gas drilling in the Arctic Ocean

Of all the emerging industrial uses of the Arctic, offshore oil and gas development is the riskiest. While a melting Arctic signals opportunity for some, the dearth of oil spill cleanup know-how, infrastructure, and response capacity in this harsh and remote area may spell disaster for the region's people and environment, including indigenous communities who rely on healthy populations of fish and other wildlife for their livelihoods.<sup>62</sup> The environmental and social devastation caused by the Exxon Valdez oil spill demonstrate the vulnerability of Alaskan coastal ecosystems to oil pollution and the length of time spilled oil can persist in damaging the marine environment.<sup>63</sup> More recently, Shell Oil's long string of failures in its Arctic drilling venture—despite billions of dollars of investment and preparation—show how ill prepared even the largest, most technically competent oil companies are for operations in the Arctic.<sup>64</sup> Arctic fossil-fuel extraction will also accelerate disruptive climate changes already underway in the region and globally.<sup>65</sup>



The United States should set an example for other Arctic states by freezing domestic Arctic offshore oil and gas development in its Arctic Ocean exclusive economic zone, much as it has already done by imposing a moratorium on commercial fishing in U.S. Arctic waters. This action should also include collaboration with the Department of the Interior to cancel additional Arctic lease sales slated for 2016 and 2017 under the current five-year leasing program.<sup>66</sup>

We recognize the good work the council has done to establish its 2013 Agreement on Cooperation on Marine Oil Pollution Preparedness and Response in the Arctic. While we also recognize the political complications of calling for an Arctic-wide halt to oil and gas exploration and development, we firmly believe a domestic freeze should remain in place until safe, proven, all-season Arctic oil spill cleanup methods exist, sufficient infrastructure is in place to quickly and effectively respond to an oil spill, and the United States develops and implements an ambitious plan to reduce heat-trapping emissions from public lands and waters.<sup>67</sup> Building on what it learned during the emergency response to Shell's Arctic mishaps in 2012, the United States should lead an Arctic Council effort to strengthen international safety standards and protocols for cooperative emergency response for Arctic energy development.

### Connect the U.S. public to the Arctic people and the value of a healthy climate and marine and coastal environments in the region

The Department of State should undertake a concerted effort to broaden U.S. public interest in the Arctic by launching a U.S. outreach strategy to connect Americans to the reality that their country is an Arctic nation. This effort should highlight how a melting Arctic and unconstrained, irresponsible development in the Arctic Ocean threatens the livelihoods and future of the Arctic people and the health of valuable marine and coastal environments in the region, putting all Americans at greater risk. The outreach strategy should include a short film and photojournalism series—perhaps called something like “I am the Arctic”—that highlights the communities, individuals, and cultures climate change is already putting at risk and that would be further threatened by imprudent development. The outreach strategy should also illuminate, via widely disseminated short films and stories and science-on-a-sphere displays—giant animated globes that display

information about the planet—how climate changes in the Arctic are affecting U.S. mainland communities through things such as sea-level rise, more-severe weather, and the polar vortex.<sup>68</sup> Ideally, such an outreach strategy would be supported by public opinion research on how to most effectively improve public understanding and engagement. The strategy should leverage the full breadth of the White House and agency communications and outreach capacities through traditional and social media, as well as those of a broad spectrum of nonprofit and private-sector partners.

### Ensure a peaceful, safe, and stable Arctic

While the security threats in the region are currently low, additional industrial and commercial activity will also increase the risk of oil spills, shipping accidents, and conflict over territorial disputes. As we have said in earlier reports and reiterate here, to keep pace with the rising safety and security challenges in the region, Secretary Kerry must work closely with Secretary of Defense Chuck Hagel, Secretary of Homeland Security Jeh Johnson, and Commandant of the U.S. Coast Guard Admiral Robert J. Papp to promote a stable and secure Arctic.

The administration should develop a comprehensive plan to upgrade and expand American capabilities and infrastructure in the Arctic, including replacing existing U.S. icebreakers as they reach the end of their service lives. The U.S. Navy Arctic Roadmap already calls for close collaboration with Canada and other Arctic Council nations with large icebreaker fleets to ensure adequate icebreaker capacity going forward.<sup>69</sup> But with only two functional icebreakers designed to operate in the Arctic, compared to the 25 operated by or under construction in Russia, the United States is vastly underprepared to manage these future risks and must consider additional investments.<sup>70</sup> Admiral Papp and Secretary Hagel should explore options for the procurement of additional heavy and medium icebreakers to meet growing requirements in the Arctic.

Finally, ports and other key infrastructure needed to support oil spill clean up and emergency response to shipping accidents and other disasters will require substantial investment. Lifting the moratorium on oil and gas exploration should hinge on support from U.S. industry for these facilities and the infrastructure needed to prepare for contingencies. Secretary Kerry should ensure that the Arctic Council develops options for multilateral approaches to this kind of Arctic

disaster preparedness. Lastly, Secretary Kerry, Secretary Hagel, Admiral Papp, and NOAA Administrator Kathryn Sullivan should develop a collaborative program to improve our understanding of the local and global consequences of a warming Arctic, including its potential to accelerate conflict and other security threats.

### Ratify the U.N. Convention on the Law of the Sea

The United States' continued failure to ratify the U.N. Convention on the Law of the Sea,<sup>71</sup> or UNCLOS, despite broad, bipartisan consensus on its importance undermines our nation's credibility in international marine affairs and diminishes our influence in international forums such as the Arctic Council. Since it was negotiated under Ronald Reagan, every president has supported ratification, and failure to ratify is preventing the United States from defining territorial claims in the Arctic under international law. This leaves us at a disadvantage to every other Arctic Council member. The Obama administration, as part of its comprehensive planning for the Arctic Ocean, should elevate efforts to secure Senate ratification of this treaty after the midterm elections. This effort should include renewed coordination with the Senate Foreign Relations Committee chairman, as well as high-level outreach to all members of the Senate to convey the vital importance of UNCLOS to U.S. commercial, scientific, and security interests in the Arctic Ocean. The administration should call on former Presidents Bill Clinton and George W. Bush to jointly encourage ratification.

# Conclusion

The actions we recommend in this report are consistent with President Obama's Climate Action Plan, in which he commits the United States to leading international efforts to address climate change.<sup>72</sup> They also support the U.S. security, environmental stewardship, and international cooperation priorities identified in President Obama's National Strategy for the Arctic Region, the White House's Arctic Strategy Implementation Plan, the Department of Defense 2013 Arctic Strategy, and the U.S. Navy Arctic Roadmap for 2014 to 2030. By taking the actions recommended above, Secretary Kerry and President Obama can bring to the international climate debate the urgency and momentum needed to secure an ambitious global climate agreement in 2015. They can also leave a strong legacy of protecting the well-being of the Arctic's people, wildlife, and marine and coastal environments—and the well-being of the planet.

**\*Correction, April 24, 2014:** *The original version of this report omitted the names of three Arctic Council member nations. These nations are Finland, Iceland, and Sweden.*

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## About the authors

**Cathleen Kelly** is a Senior Fellow at the Center for American Progress. She specializes in international and U.S. climate mitigation, preparedness, resilience, and sustainable development policy. Kelly served in the Obama administration at the White House Council on Environmental Quality, where she led a 20-plus-agency task force to develop a national climate-resilience strategy. This strategy helped form the basis of the climate-preparedness pillar of President Obama's Climate Action Plan. Kelly also helped formulate the Obama administration's positions on international sustainable development and climate policy issues. She is a professor of international and environmental policy at the Johns Hopkins University Paul H. Nitze School of Advanced International Studies, or SAIS.

**Michael Conathan** is the Director of Ocean Policy at the Center for American Progress. His work focuses on driving progressive solutions to the multitude of problems facing the world's oceans. Prior to joining CAP, Conathan spent five years staffing the Senate Committee on Commerce, Science, and Transportation's Subcommittee on Oceans, Atmosphere, Fisheries, and Coast Guard—initially serving a one-year appointment as a Dean John Knauss Marine Policy Fellow before joining the committee full time as a professional staff member in 2007. In that capacity, Conathan worked primarily for Subcommittee Ranking Member Sen. Olympia Snowe (R-ME), as well as the ranking members of the full committee, Sen. Ted Stevens (R-AK) and Kay Bailey Hutchison (R-TX). He oversaw enactment of multiple key pieces of ocean legislation, including the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act, the Integrated Coastal and Ocean Observing Act, the Federal Ocean Acidification Research and Monitoring Act, and the Shark Conservation Act.

**Vikram Singh** is the Vice President for National Security and International Policy at the Center for American Progress. Previously, he served as the deputy assistant secretary of defense for South and Southeast Asia at the Pentagon, where he advised senior leadership on all policy matters pertaining to development and implementation of defense strategies and plans for the region. Until November 2011, Singh was the deputy special representative for Afghanistan and Pakistan at the U.S. Department of State. He has also served in the U.S. Department of Defense as a senior advisor on Afghanistan and Pakistan, representing the department in National Security Council policy reviews of the region and the war in Afghanistan, and as a senior advisor responsible for the department's post-2014 strategic approach to South and Central Asia.

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