




S1: Regional Development

-  Global energy demand drives growth in oil and gas extraction in the Bering and Chukchi Seas
-  Revenue from energy resources and mining supports community development and infrastructure that are accompanied by population growth and economic diversification
-  National, bi- and multi-lateral agreements increase and open up the region for global investment while modest environmental protections seek to avoid significant externalities
-  Strong environmental regulations exist, but there is increasing pressure for exploitation of fisheries in the warming Bering and Chukchi seas
-  Indigenous communities have greater autonomy in local and regional governance, but coastal communities along the Chukchi and Beaufort Seas are increasingly at risk from sea-level rise
-  Economic growth enables public and private investments in adaptation planning and implementation that enhance community resilience and the capacity of natural ecosystems to adapt naturally to the changing climate

S2: Regional Inequality

-  High energy prices drive continued expansion of regional energy extraction including offshore development in the Bering and Chukchi Seas and opening of the Arctic National Wildlife Refuge
-  Economic boom creates jobs and provides revenue for state/provincial/district and municipal governments
-  Competition for access to marine resources drives conflicts between Russia, Canada, and U.S.
-  Environmental protections are rolled back to enable resource extraction to proceed unimpeded, resulting in increasingly vulnerable fisheries and wildlife
-  Indigenous communities benefit from economic growth at the expense of autonomy, traditional livelihoods and knowledge
-  Adaptation efforts focus on maintaining the continuity and productivity of the energy sector, resulting in positive spillover effects for communities, but significant reduction in the adaptive capacity of natural ecosystems

Global Energy Demand

Institutions

Governance

S3: Regional Sustainability

-  Climate change and technological changes in the global energy sector slow investments in the region's oil & gas resources
-  Modest but steady, economic growth, with particularly rapid expansion of the tourism sector
-  National, bi- and multi-lateral agreements increase environmental protections associated with oil and gas exploration, mining, navigation, and fisheries
-  Commercial fishing opportunities in the Bering and Chukchi Seas are curtailed and increased land is set aside for protection and conservation
-  Increased opportunities for indigenous communities to influence decision-making spurs calls for greater autonomy, community-based economic growth, and a resurgence of traditional livelihoods
-  Modest economic growth and modest climate change impacts drive attention toward ecosystem-based adaptation as a mechanism for jointly increasing the resilience of natural and human systems

S4: Regional Fragmentation

-  Lower energy and resource demand suppresses energy prices and regional investment in oil and gas extraction
-  Economic growth is slow due to low energy and commodity prices while attempts at economic diversification are largely unsuccessful
-  Regional tensions among governments are high as nations are unable to resolve disputes over resource access, which further discourages private investment
-  Environmental protections are poorly enforced and uncoordinated with some protections suspended in the interest of economic development
-  Opportunities for indigenous communities deteriorate as they are marginalized from both the larger economy and decision-making by formal governments
-  Public and private actors are quite limited in their capacity to adapt in the face of multiple environmental and socioeconomic risks, resulting in short-term decision-making and maladaptive behaviors

Economic Growth

Collaborative / Rule-based

Competitive / Risk-based



Energy



Economy



Governance



Environment



Communities



Adaptive capacity