

# Arctic Futures Initiative

A systems perspective on the  
plausible futures of the Arctic

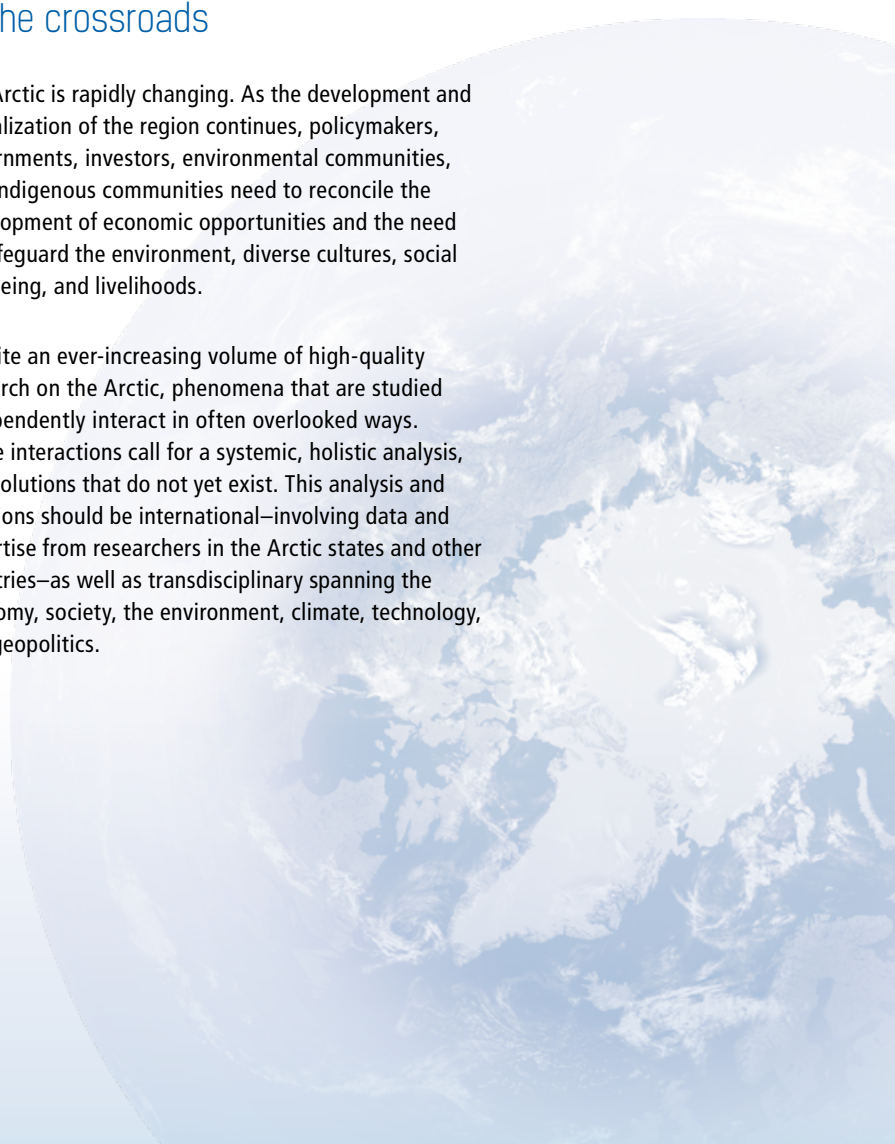


AFI combines the expertise of IIASA with the convening power of the Arctic Circle. It provides options that balance environmental protection, economic prosperity, and human wellbeing.

## A fast-changing region at the crossroads

The Arctic is rapidly changing. As the development and globalization of the region continues, policymakers, governments, investors, environmental communities, and indigenous communities need to reconcile the development of economic opportunities and the need to safeguard the environment, diverse cultures, social wellbeing, and livelihoods.

Despite an ever-increasing volume of high-quality research on the Arctic, phenomena that are studied independently interact in often overlooked ways. These interactions call for a systemic, holistic analysis, and solutions that do not yet exist. This analysis and solutions should be international—involving data and expertise from researchers in the Arctic states and other countries—as well as transdisciplinary spanning the economy, society, the environment, climate, technology, and geopolitics.



## A balanced Arctic future in a global context

Global socioeconomic changes, such as increasing global demand for new energy and natural resources, population growth, increasing greenhouse gas emissions, as well as technological changes, all affect Arctic societies, climate, and environment. The Arctic Futures Initiative (AFI) aims to answer the need for a holistic, integrated approach to the development of the Arctic, its variety of actors with differing values, and diverse national strategies.

AFI is a unique research partnership aimed at providing holistic assessment and well-researched policy options for the rapidly changing Arctic region. Coordinated by the [International Institute for Applied Systems Analysis](#) (IIASA) in partnership with the [Arctic Circle](#), AFI aims to provide comprehensive analysis and synthesis for Arctic and non-Arctic countries alike, including policymakers, Arctic residents, and civil society. The initiative incorporates perspectives from over 70 stakeholder institutes, organizations, the private sector, indigenous peoples, investors, and foundations.

The initiative will draw from the unique position of IIASA and its expertise in systems analysis, as well as the convening power of the Arctic Circle.





AFI aims to deliver an integrated systems assessment to answer the following key questions:

- 1 What are the plausible futures for the Arctic and pathways to those futures from local to global context?
- 2 What information do decision makers need to make those futures sustainable?
- 3 How could Arctic system “surprises”—thresholds and unintended consequences—influence these futures?
- 4 How can the myriad of potentially conflicting Arctic interests—socioeconomic, environmental, cultural, and political—be reconciled as the Arctic system changes rapidly?
- 5 How robust and future-proof are the strategic plans to develop and protect the Arctic?



## Integrated methods for a comprehensive perspective

IIASA has a unique capacity to work in a neutral, integrative, and inclusive manner. The institute provides an integrated methodology applicable at the global, regional, and national scale on a wide range of interlinked issues, all critical to the potential development options for the Arctic.

In the context of the Arctic, IIASA integrated modelling can be used to calculate economic and social benefits from policies linking energy, transportation, infrastructure, climate, pollution, and the environment, as well as geopolitical uncertainty. AFI is modelled on the IIASA-led [Global Energy Assessment](#), which showed that integrating energy policies with climate, air quality, and health policies can lead to substantial savings as compared to the cost of the sum of these individual sectors.

Drawing on the network of the Arctic Circle, AFI will examine the relationships behind these interlinkages through integrated modelling supported by meetings and workshops with representatives from government, business, civil society, and academia.

The **International Institute for Applied Systems Analysis (IIASA)** researches global environmental, economic, technological, and social change. The institute provides valuable options to policymakers to shape our changing world. IIASA is independent and funded by prestigious research funding agencies in Africa, the Americas, Asia, Europe, and Oceania.

[www.iiasa.ac.at](http://www.iiasa.ac.at)

The **Arctic Circle** is the largest network of international dialogue on the future of the Arctic. Participants include governments, corporations, universities, think tanks, environmental associations, indigenous communities, and concerned citizens interested in the development of the Arctic and its consequences for the world. It is a nonprofit, nonpartisan organization.

[www.arcticcircle.org](http://www.arcticcircle.org)

STAKEHOLDERS: ▪ Academy of Finland ▪ Aleksanteri Institute of the University of Helsinki, Finland ▪ Alfred Wegener Institute (AWI), Germany ▪ Aleut International Association (AIA) ▪ American Association for the Advancement of Science (AAAS) ▪ Arctia Ltd. ▪ Arctic Athabaskan Council (AAC) ▪ Arctic Centre of the University of Lapland, Finland ▪ Arctic Circle Assembly, Iceland ▪ Arctic Contaminants Action Program (ACAP) ▪ Arctic Council Senior Arctic Officials ▪ Arctic Economic Council (AEC) ▪ Arctic Frontiers ▪ Arctic Monitoring and Assessment Programme (AMAP) ▪ Arctic Science Summit Week ▪ Center for International Climate and Environment Research (CICERO), Norway ▪ Center for Strategic and International Studies (CSIS), USA ▪ Conservation of Arctic Flora and Fauna (CAFF) ▪ European Commission (EC) ▪ EU - European External Area ▪ Finnish Institute for International Affairs (FIIA) ▪ Finnish Environment Institute (SYKE) ▪ Fletcher School of Law and Diplomacy, USA ▪ Guggenheim Partners, USA ▪ Gwich'in Council International (GCI) ▪ International Arctic Science Committee (IASC) ▪ International Council of Science (ICSU) ▪ Inuit Circumpolar Council (ICC) ▪ Lomonosov Moscow State University (MSU) ▪ Ministry of Foreign Affairs, Finland ▪ Ministry of Foreign Affairs, Russian Federation ▪ Ministry of Foreign Affairs, Sweden ▪ National Environment Research Council (NERC), UK ▪ Northern (Arctic) Federal University (NArFU), Arkhangelsk, Russia ▪ Northern Research Forum (NRF) ▪ Novosibirsk State University (NSU), Russia ▪ Parliament of Finland ▪ Polar Cooperation Research Centre (PCRC), Kobe University, Japan ▪ Polar Research Institute of China (PRIC) ▪ Prime Minister's Office, Finland ▪ Protection of the Arctic Marine Environment (PAME) ▪ Research Council of Norway ▪ Royal Dutch Shell ▪ Russian Academy of Sciences (RAS) ▪ Russian Association of Indigenous Peoples of the North (RAIPON) ▪ Russian International Affairs Council (RIAC) ▪ Saami Council (SC) ▪ Standing Committee of Parliamentarians of the Arctic Region ▪ Stockholm Environment Institute (SEI), Sweden ▪ Stony Brook University, USA ▪ St. Petersburg State University (SPSU), Russia ▪ Sustainable Development Working Group (SDWG) ▪ Swedish Arctic Secretariat ▪ Team Arctic Finland ▪ The City University of New York (CUNY), USA ▪ University of Alaska, Fairbanks (UAF), USA ▪ University of Bremen, Germany ▪ University of Helsinki, Finland ▪ University of Lapland, Finland ▪ University of the Arctic (UArctic) ▪ University of Turku, Finland ▪ U.S. Arctic Research Commission (USARC) ▪ U.S. Department of Energy (DOE) ▪ U.S. Department of State (DOS) ▪ U.S. National Academy of Sciences (NAS) ▪ U.S. National Science Foundation (NSF) ▪ U.S. Polar Research Board (PRB) ▪ Wilson Center, USA ▪ World Meteorological Organization (WMO) ▪ World Oceans' Council ▪ World Policy Institute – Russia ▪ World Wide Fund for Nature (WWF)