



MEGATRENDS



Executive summary

The current pace of global change has already had a decisive impact on the Arctic. To understand the current and likely future situation in the Arctic it is important to acknowledge the pre-conditions, challenges and tendencies at work here.

Some of these developments should be characterised as megatrends because they overarch and impact on

everything else. They are trends deemed so powerful that they have the potential to transform society across social categories and at all levels, from individuals and local-level players to global structures, and eventually to change our ways of living and thinking.

The following nine megatrends have been identified:



Increased urbanisation – a global trend also including the Arctic

Urbanisation is a process where society is transformed from predominantly rural characteristics in terms of economy, culture and lifestyle, to one which can be characterised as urban.

It leads to a further concentration of the Arctic population on fewer and larger places – with increased diversification of the economy, social relations, and cultural activities.

It entails a complex set of processes, not only in where people live and what they produce, but in who they are, how they live in terms of economic well-being, political organisation and the distribution of power, demographic structure and social relations.

The pace may differ in different parts of the Arctic, but the trend is the same!



Demographic challenges – the old stay while the young leave

A decline in birth rates leads to a reduction in the number of people in the active workforce. This, combined with a general ageing of the population, results in increased old age dependency rates.

Stagnating or declining predominantly rural regions are experiencing the temporary out-migration of young persons seeking educational opportunities, usually resulting in the permanent out-migration of young and well-trained persons.

As relatively more women than men leave, this has a profoundly negative effect on the social life and the economy through opportunities for marriage, maintenance of family life and family relations etc., as well as through the loss of educational skills.

A few municipalities – basically the urban ones – can show a positive net immigration, most of them in relation to either new economic activities creating jobs, or educational opportunities attracting youth segments.



Continued dependency on transfers and the exploitation of natural resources will continue to dominate the Arctic economies

The Arctic continues to be a region of economic contrasts. The international economy supports modern large scale, capital intensive production, while the traditional economy exists in small individual or family groups.

Growing global competition combined with the over-exploitation of natural resources creates structural and economic crisis in many Arctic/ Northern communities.

Exploited to the limit, these living resources are not expected to provide the necessary economic surplus to enable further welfare development. In addition, “traditional” activities remain vulnerable to international opinion in relation to the environment and animal welfare.

Growth in the Arctic tourist industry will continue with an increasing emphasis on large vessels and land-based tourism.

Future extraction of the vast land-based resources of the Arctic will increasingly be based on “company-towns” generating few jobs in established communities.

The most significant shift in the economy, however, is from primary and secondary towards tertiary sector jobs funded through transfers from royalties and governments.

The Arctic will remain a high cost production region because it is located far from markets, it is sparsely populated and it is situated in a harsh environment. In most parts of the region development occurs along “frontiers” with a limited infrastructure and with few available workers.



Continued pollution and ongoing climate change will have a significant impact on the nature and environment of the Arctic.

The future will see challenges such as increasing temperatures, melting of sea ice and glaciers, sea-level rise and probably also increased precipitation in some areas and drought in others.

Whether or not they are fatal themselves, anthropogenic forces add to the stress on local ecosystems. Their combined effects can be cumulative with substantial causality. In some cases innovative approaches might reduce the impact of these processes.

Biological diversity could be significantly impacted if climate change continues at its current pace, though the new composition of species is likely to be based on heat-tolerant fast adapters, resulting in patterns where these “invasive species” will tend to re-structure local ecosystems.

Management of renewable resources is a complex and highly advanced exercise, with several different layers and players. The challenge here is to provide management systems such as co-management approaches where the different levels of interest meet in order to provide a means of regulatory control and follow up schemes while at the same time remaining open to outside involvement.

Especially in the Arctic, where cross-boundary interests between nations, regions, and communities are often involved, it seems obvious that resource management could benefit from such experiences.

While pollution from outside the Arctic is a recognised problem which may increase with rising levels of activity in the Arctic, pollution from internal Arctic activities needs also to be addressed.



The Arctic needs to generate more Human Capital by investing more in its people

The advent of what is often characterised as the “knowledge economy” requires the enhancement of human skills and talents which will be the key to the next development process. As education has a leading role to play new initiatives are needed to enable communities to take charge of their own development processes.

The service sector, providing wage work in administration, education and social services, has become the main income source for most families in the Arctic. These sectors serve as the economic mainstay for local communities and are also increasingly necessary for the maintenance of many of the traditional renewable resource activities.

Ensuring the availability of educational opportunities and the jobs that enable young people to remain in the community, or at least in the region.

Establishing job opportunities for women is important as they tend to be the main source of an educated workforce in most of the Arctic, and already tend to be a primary source for labour in the public sector’s service activities, while unskilled or technical jobs tend to be taken up by incomers.



Changes in the nature of interaction between the public and private spheres will impact development

While most of the Arctic is still characterised by a large public sector with state authorities involved in most regulation and planning measures, processes supporting the delegation of power and responsibility to lower administrative structures have been widely introduced, promoting and maintaining strong local autonomy and democratic accountability.

Of similar importance is the fact that the private sector is now gradually moving into fields which used to be dominated by the public sphere, most prominently in retail sale, housing and professional services.

Access to natural resources has long been subject to such a process. In fisheries Individual Transferable Quotas and Community Quotas have turned into forms of private ownership. And most prominently, Russia has experienced a process where privatisation has entered into a broad spectrum of basic economic activities such as mining and smelter industries.

Due to the high costs of establishing infrastructure and maintaining connections in the Arctic, however, the public sector will prevail as the major provider of such services.



Renewable energy will contribute to a “greening” of the economy.

The Arctic has major potential in terms of developing non-fossil fuel based local energy resources including substantial freshwater sources which may be the basis for further development.

Energy is a key component for development, and a major challenge here is that the Arctic is among the most sparsely populated areas in the world and with obvious difficulties in establishing energy-related infrastructures.

The current impetus to “green” the economy reflects three major concerns: the need to tackle climate change and other environmental problems; the desire to strengthen energy security by reducing dependence on oil and gas; and the need to stimulate job-creation through local renewable energy production in many rural areas.

The inflow of consumer goods to the Arctic in combination with a more urban lifestyle generates a substantial amount of waste material. Increasingly, the regeneration and re-use of some products and increased use of recyclable materials will provide a new approach to waste management, while other non-recyclable materials are converted into energy.



Increased accessibility provide opportunities as well as new risks

The much predicted easier ocean access to transport and resources in the region will generate increased shipping, but also create new risks for the environment.

It may provide inhabitants, at least some, with better connections to other parts of the world, but the costs may still be a limiting factor.

It will, however, provide the cruise liner industry with easier access. This may not however be of particular benefit to small Arctic communities as they have only a minimal ability to benefit from mass tourism. The necessary infrastructure costs – port facilities and hotel beds – are prohibitive and the risk that they are never able to prove their economic viability remains great as such communities would be at the economic mercy of the cruise line companies.

Ubiquitous low cost communications technology will change the relationship between citizens and states. In some areas, however, uneven capacities and problems over access due to socio-economic limitations will undoubtedly remain an issue due to charging systems based on the amount of traffic.

The compound effects of the impact of numerous interrelated components raise the question of whether this is voluntary or forced. Globalisation has a penetrating effect.



The Arctic as a new player in the global game

The Arctic is no longer an isolated or remote region. It is a member of the global society, often at the centre of global attention and fundamentally influenced by global changes,

Increased global interest is however a potential source of tension between the need for exploration and the requirements of conservation. This balancing act requires effective governance. Resource development, therefore, ought to be conducted in the framework of “stewardship”, with a greater emphasis placed on sustainability and the principle of inter-generational equity.

The complexity and rapidity of the changes experienced require that substantial effort is made to maintain a proper “stewardship” in and among the Arctic states and that concern for this fragile area of vital importance includes relevant stakeholders and global society more generally.

In this context however, the need for new data, knowledge, and information is required for a further in-depth understanding of the interaction between the different systems and in order to fully understand current and potential future changes.



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