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Arctic Social Indicators

Measuring Change in Human Development in the Arctic

Olga Sif Guðmundsdóttir

A Final Thesis in the Faculty of Law and Social Sciences

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A Final Thesis for a 90 Unit B.A. Degree in the Faculty of Law and Social Sciences

Instructor: Joan Nymand Larsen

Statements

I hereby declare that I am the only author of this project and that it is the result of own research.

Ég lýsi því hér með yfir að ég ein er höfundur þessa verkefnis og að það er ágóði eigin rannsókna.

_____
Olga Sif Guðmundsdóttir

It is hereby confirmed that this thesis fulfils, according to my judgment, requirements for a B.A.-degree in the Faculty of Social Sciences and Law.

Það staðfestist hér með að lokaverkefni þetta fullnægir að mínum dómi kröfum til B.A.-prófs í Félagsvísinda- og lagadeild.

_____
Joan Nymand Larsen

Abstract

The Arctic Social Indicators (ASI) project, an endorsed project of the Arctic Council, is aimed at devising a small set of indicators that reflect key aspects of human development in the Arctic. The indicators must be manageable in terms of measurement and affordable in regard to labor and material resources as the objective is to use them in monitoring change in human development in the region over time. As to insure that the devised indicators are good representatives, the project also seeks to "test" them with existing data and in discussion with representatives from various communities of the Arctic.

The ASI and its working process is the focus of this thesis, where the methods of literature research, participant-observation and interviews, were used. The author attended the first ASI workshop, as well as a meeting of the Sustainable Development Working Group (SDWG) of the Arctic Council under which the ASI is being developed. The ASI was discussed with representatives of indigenous organizations as to hear their opinions on the ASI process as well as on how indigenous peoples should be included.

An achievement of the first ASI workshop was a selection of six domains for which indicators needed to be selected. Further achievements were a selection of criteria for use in finding the best suited indicators as well as a selection of preliminary indicators for three of the six domains. Discussions at the SDWG meeting regarding the ASI were positive as well as indigenous respondents were positive towards the ASI domains. Regarding the consultation process, suggestions were on using the Indigenous Peoples Secretariat of the Arctic Council, as well as a suggestion was on the ASI members going to the basic community to talk to the locals.

Útdráttur

„Arctic Social Indicators" (ASI) verkefnið, sem stutt er af Norðurskautsráðinu, snýr að því að velja mælivísa sem endurspegla meginþætti mannlífsþróunar á norðurslóðum. Tilgangurinn með vísunum er að fylgjast reglubundið með mannlífsþróun á svæðinu og er því mikilvægt að þeir séu viðráðanlegir og kostnaður við notkun þeirra lágur. Til þess að tryggja að vísarnir endurspegli meginþætti, þá eru þeir "prófaðir" með gögnum sem þegar eru til sem og með því að ræða við íbúa svæðisins.

ASI verkefnið og vinnuferli þess er viðfangsefni þessarar ritgerðar. Aðferðafræðin á bak við hana byggist á heimildavinnu, þátttöku-athugun og viðtölum. Höfundur ritgerðarinnar sótti fyrsta fund ASI vinnuhópsins, sem og fund hjá „Sustainable Development Working Group" (SDWG) sem er sá vinnuhópur Norðurskautsráðsins sem verkefnið heyrir undir. Verkefnið var rætt við fulltrúa frumbyggjasamtaka í þeim tilgangi að heyra skoðanir þeirra á þróun verkefnisins sem og á því hvernig þátttöku frumbyggja í verkefninu skyldi háttað.

Á fyrsta fundi ASI valdi hópurinn sex flokka eða svið sem þurfti síðar að finna vísa fyrir. Á fundinum var jafnframt valin aðferðafræði til að notast við í leit að vísum og bráðabirgðavísar voru valdir fyrir þrjá flokka af sex. Umræður varðandi ASI á SDWG fundinum voru jákvæðar og jafnframt voru fulltrúar frumbyggjasamtakanna jákvæðir hvað varðaði þá sex flokka sem ASI hópurinn hafði valið. Varðandi þátttöku frumbyggja í verkefninu komu fram tillögur um að nýta stjórnardeild Norðurskautsráðsins sem aðstoðar frumbyggjana í ráðinu (Indigenous Peoples Secretariat) og einnig kom fram sú hugmynd að ASI meðlimir færu til frumbyggjanna og ræddu við þá á þeirra eigin heimaslóðum.

Words of thanks

Table of Contents

Table of Figures

Introduction

The science community is filled with research and studies of great interest and importance. It is however always inspirational when seeing research done, that is of importance, not only for the science community but that can actually affect peoples' lives for the better. The focus of this paper is to look at the Arctic Social Indicators (ASI) project, launched early last year (2006). The project is a follow-up to the Arctic Human Development Report (AHDR) and is an endorsed project of the Arctic Council. It is being developed under the auspices of the Council's Sustainable Development Working Group (SDWG) and its secretariat is hosted by the Stefansson Arctic Institute in Iceland. The project has been widely welcomed by the Arctic states as its work may result in much progress and be of critical importance to the science community, the Arctic residents, policymakers and others connected to matters regarding the region.

The aim of the ASI project is to devise a set of indicators that reflect essential aspects of human development in the Arctic, which are manageable in terms of measurement and can be monitored over time at a reasonable cost in regards to labor and material resources. As to insure that the devised indicators are good representatives, the project also seeks to "test" them with existing data and in discussion with representatives from various communities of the Arctic. The timeline of the project is planned on a 2.5 year basis, concluding with the publication of a report in 2008.

This paper is done as a continuance of a student project named *Arctic Social Indicators: A Student Project in the Social and Economic Development Program* conducted in 2006. Joan Nymand Larsen was the instructor of the project as well as she is the instructor of this paper. This paper is based on a participant-observation, interviews and a literature research. It contains information about the ASI project as well as background information such as previous research and projects regarding the region and regarding the construction of social indicators. As mentioned, the ASI is being developed under the SDWG of the Arctic

Council, which held its latest meeting in April (2007) in Tromsø, Norway. The author of this paper got the opportunity to attend the meeting to observe the work environment of which the ASI is a part of. The paper therefore includes information about the Arctic Council and the SDWG meeting. Attending the meeting gave an opportunity to discuss the ASI with indigenous representatives from various Arctic communities, and their views will also be discussed in the paper.

The paper is divided into ten main chapters, starting with a short one on the methods used in this study. The second chapter gives a general description of the Arctic region, while the third discusses Arctic stakeholders, in particular the Arctic Council. "Human development" is the heading of the fourth chapter were the concept is discussed, both in general terms and specifically in the Arctic region. The concept of "social indicators" is the subject of the fifth chapter.

To get an understanding of indicator construction and a better knowledge of human development in the Arctic, former studies are addressed in chapter six and seven. Chapter six looks at various studies, while the seventh looks at the AHDR of which the ASI is a follow up. The ASI is discussed in chapter eight which is an extensive chapter written with special attention to the ASI workshop held last September (2006). The two last chapters are in a form of discussion, the former discussing the preliminary indicators the ASI working group has chosen, and the latter explaining the views of Arctic inhabitants on the project.

Method

This study is based on a literature research, participant-observation and interviews. The ASI project's objective is to devise a set of indicators to measure and monitor changes in human development in the Arctic region over time, and at an affordable cost. For a better understanding of the ASI project, and to get a more comprehensive picture of its purpose and meaning, previous literature on the Arctic region was looked at, as well as studies focused on the construction of social indicators. The ASI project was launced early last year (2006) with its first meeting in September at a workshop held in Akureyri, Iceland. The author of this paper participated at the ASI workshop as a passive observer; collected notes and observed the work and process made by the ASI working group. Also the author got the opportunity of attending the SDWG meeting of the Arctic Council held in April 2007, where an update of the ASI, among other, was presented. Attendence to the meeting not only gave an opportunity of observation, but also made it possible for the author, along with a fellow student, to talk to representatives from various communites around the Arctic and hear their views on the ASI in regards to important matters such as for example indigenous participation and consultation.

These methods were used in hopes of understanding the important factors needed to construct social indicators and to learn how the ASI working group works in that regard. Attending the SDWG meeting was also meant to provide more understanding of the ASI process as well as getting an opportunity to hear the voice of indigenous peoples.
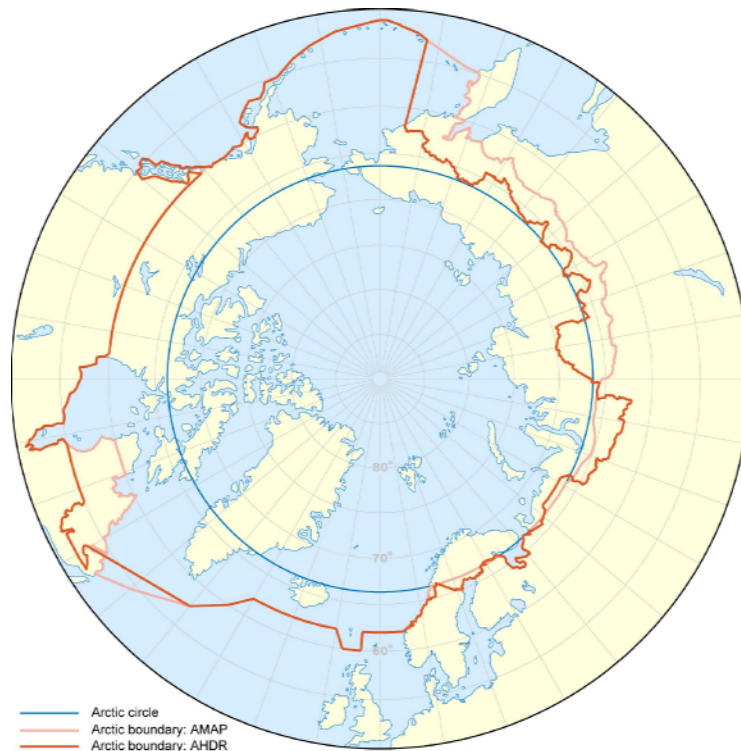
Figure 1. The Arctic boundary according to AHDR

The Arctic

There are different definitions of the Arctic and what areas account as part of the region. One

way of defining the Arctic is by looking at biophysical criteria and to circumscribe the Arctic

by the Arctic Circle or other geographical criteria. That kind of definition however does not

fit well when looking at cultural, economic and political factors. In the AHDR and the ASI,

the definition of the region is based on the one used by the Arctic Monitoring and Assessment

Programme (AMAP) in its reports from 1997 and 2002, although there are some slight

differences (see figure 1) (Young & Níels Einarsson, 2004).

"The Arctic" according to the AHDR and the ASI therefore includes all of Alaska,

Greenland, Faroe Islands and Iceland and the northern parts of Norway, Sweden, Finland,

Canada and Russia (detailed boundaries in these countries that differ from AMAP were

decided on in regard to jurisdictional or administrative boundaries and available data). The

region according to the AHDR and ASI definition covers an area of over 40 million square kilometers, and a population of about 4 million. Half of the population is Russian inhabitants (Young & Níels Einarsson, 2004).

Regarding both culture and nature, the Arctic is very diverse. It is comprised of non-indigenous people as well as tens of different indigenous groups and its nature is quite miscellaneous. Arctic residents have it in common to be dependent on natural resources, and the formal economy of the Arctic is mostly based on large-scale resource exploitation. Due to the cold climate and slow renewal of resources, Arctic's nature is sensitive, which makes it crucial to treat it with caution if the aim is sustainability (Duhaime, 2004; Vitebsky, 2000).

A great characteristic of the Arctic region is its rapid change. The Arctic region has experienced enormous changes in only a few decades and the living conditions of natives in the area have altered. The trends of globalization and modernization have had their impacts on the region and its residents, and societies that used to be governed by customs have shifted to societies governed by laws and regulations. "Almost in the space of one generation, most of the practical or mental references of what it had always meant to be an Inuit, Iñupiat, or a Saami became indeterminate, fluid, less reliable." (Andersen & Poppel, 2002, p. 195). Different stakeholders work in the Arctic today on matters regarding social, economic and environmental development. Arctic stakeholders are the topic of the following chapter.

Arctic Stakeholders

Different organizations and agents deal with the Arctic issues of today. These agents include joint efforts of state- and local governments, Non Governmental Organizations (NGOs) as well as various international organizations. One of the most significant stakeholders is undoubtedly the Arctic Council which is an intergovernmental forum for the eight Arctic

states. The Council endorses the ASI project, which is the subject of this paper, and will be looked at further in the following chapter (Young & Níels Einarsson, 2004; Arctic Council, n.d.; Project Description, 2005).

The Northern Forum is another important agent regarding Arctic issues and an example of cooperation of sub-regional governments. Members of the Northern Forum not only represent regions placed in the Arctic, however, but also regions in Mongolia, China, Japan and the Republic of Korea. Indigenous people do not have a big voice within the forum, at least not in comparison to the Arctic Council which structure is built with emphasis on the indigenous. The Forum's main projects concern sustainable development and cooperative socio-economic initiatives (Heininen, 2004).

Beyond governmental cooperation, transnational NGOs concerning Arctic issues have grown considerably over the years and many have become quite significant. They have focused on different subjects, and examples of these are indigenous peoples' organizations, scientific organizations and educational organizations (Young & Níels Einarsson, 2004).

As the ASI project is being endorsed by the Arctic Council and developed under the auspices of its SDWG, the following chapters will look closer at the Arctic Council and the SDWG. Also the ASI project will be looked at in connection to the Council to see how the project fits to their work and can be of significance.

Arctic Council

The Arctic Council, established in 1996, is an intergovernmental forum which deals with common issues and challenges of the Arctic region. The Council is derived from the Arctic Environmental Protection Strategy (AEPS) founded in 1991, and has now changed from focusing mainly on environmental protection to addressing sustainable development in a larger context (Young & Níels Einarsson, 2004; Arctic Council, n.d.a). ASI is among projects

the Arctic Council has endorsed and is being developed under the Council's SDWG (Project Description, 2005). As the author of this paper got the opportunity of attending the last SDWG meeting of the Arctic Council (2007), beyond the Arctic Council discussion in this chapter, a chapter later on will discuss the SDWG meeting of April, 2007. Let us now, however, look at the members of the Arctic Council.

Members of the Arctic Council

Members of the Arctic Council constitute the governments of the eight Arctic states; Canada, Denmark (including Greenland and the Faroe Islands), Finland, Iceland, Norway, Russia, Sweden and the United States. Several other European non-arctic states as well as various international organizations and NGOs also take part as "observers". Beyond the national states, six international organizations representing indigenous peoples have position as permanent participants and share same status as each of the Arctic governments. The Indigenous Peoples Secretariat (IPS) of the council assists the permanent participants to work together through the council (Arctic Council, n.d.a). The six permanent participants of the Arctic Council are:

- Aleut International Association
- Arctic Athabaskan Council
- Gwich'in Council International
- Inuit Circumpolar Conference
- Russian Association of Indigenous Peoples of the North
- Saami Council

(Arctic Council, n.d.a).

Aleut International Association (AIA). The AIA is an NGO representing the Aleut people of both Alaska and Russia. It was founded in 1998 as an accomplishment of two distinct organizations; the Aleutian/Pribilof Islands Association in Alaska, and the Association of Peoples of the North – Aleut District, Kamachatsky Region, in Russia. The Aleut people have lived in Aleutian Islands of Alaska for at least 8,000 years, but during the 1800s many of them were enslaved by Russian fur traders and brought to Russia. The Aleut people have been separated by the Bering Sea since, and the co-operation forming the AIA is therefore quite an achievement (Arctic Council, n.d.b).

The Aleut peoples are increasingly threatened by external factors such as pollution, climate change and of the commercial fishing fleets of other nations. This has been their main concern and the focus of their organizations work, i.e. protection of their homelands so that they can continue to live the Aleut way of life (Arctic Council, n.d.b).

Arctic Athabaskan Council (AAC). The AAC is an international treaty organization founded by four Alaskan Athabaskan communities and three Canadian, together representing around 32,000 people (and expected to increase with more member governments joining). The Athabaskan peoples have traditionally occupied an area of around 3 million square kilometers and have lived in the area of now Canada and Alaska for at least some 10,000 years. They live on a wide area of land and speak 23 different languages. As their ancestors, which were semi-nomadic hunters, most Athabaskan peoples rely on caribou, moose, beaver, rabbits and fish for food as well as they continue to live in accordance with many old practices (Arctic Athabaskan Council, n.d.).

The AAC was established with the purpose of enhancing general knowledge and understanding of the common heritage of the Athabaskan peoples of Canada and United

States, as well as specifically with the purpose of representing the Athabaskan member First Nation governments at the Arctic Council (Arctic Athabaskan Council, n.d.).

Gwich'in Council International (GCI). The GCI is an NGO of the Gwich'in peoples of Yukon and Alaska. Their occupied area is vast and it is believed they have lived there for as long as 20,000 years. The Gwich'in lived a nomadic lifestyle until fur-traders entered the area in the 1870s and settlements became into being. Gwich'in traditional lifestyle is based on a diet of fish and other animals as well as the caribou which also can be used for tools and clothing (Gwich'in Council International 2006a; 2006b).

The GCI was founded in 1999 by the Gwich'in Tribal Council in Inuvik. The purpose of it was to join the Gwhich'in peoples of different regions so that they would all be represented at the Arctic Council as one voice, as well as in other forums of policy development (Gwich'in Council International, 2006a).

Inuit Circumpolar Conference (ICC). The ICC is an NGO established in 1977 by the late Eben Hopson of Barrow, in Alaska. Today the organization, beyond having status as a permanent participant at the Arctic Council, holds Consultative Status II at the United Nations. The Inuit peoples are very widespread within the Arctic and the ICC represents about 160,000 Inuit of Alaska, Canada, Greenland and Chukotka in Russia. Inuit ancestors have hunted, fished, worked and lived in the area for thousands of years, and the Inuit of today work for their right to do the same (ICC Alaska, 2005; Inuit Circumpolar Conference (Canada), n.d.).

Like the other indigenous organizations ICC's purpose is to integrate its peoples in work on the protection and promotion of their way of life. Their projected goals are to strengthen the unity among Inuit; uphold their rights and interest on an international level; to

work for long-term policies that preserve their environment; and to gain participation in the development of political, social and economic matters in the region (Inuit Circumpolar Conference (Canada), n.d.).

Russian Association of Indigenous Peoples of the North (RAIPON). RAIPON was established in 1990, though initially under a different name. It represents the indigenous peoples of Siberia and the Far East Russia which combined account for a total population around 250,000 people. RAIPON has a consultative status at the United Nations as well as being an observer at other forums. Its main issues concern human rights and RAIPON deals with matters such as legal rights of the indigenous peoples. Also it works on general matters concerning the environment, education and various social and economic matters. Protection of the indigenous' homeland and their right of self governance are issues in focus (Russian Association of Indigenous Peoples of the North, 2007).

Saami Council. The Saami Council, an NGO established in 1956, is one of the oldest indigenous peoples' organizations in the world and has been listed as an NGO by the United Nations. The Council is representative of the Saami peoples of Norway, Sweden, Finland and Russia. Saami's traditional language and culture differ from the majority of their countries' population. Saami life is based on reindeer, fishing, hunting and crafts to a great deal, though today the majority of Saami have other careers (*An Introduction to the Saami People*, n.d.; Saami Council, n.d.).

The Saami Council works on safeguarding Saami rights and interests. These include economic, social, cultural and educational interests. Also the Council's intention is to promote unity among the Saami and on the outward, to enhance recognition of the Saami as one people and assure their rights to live on their native lands (Saami Council, n.d.).

These six above-mentioned indigenous organizations, have, by gaining status as permanent participants, got the opportunity of representing numerous indigenous communities at the Council. The Arctic Council is one of the only international organizations where indigenous populations have joint representation with governments and is therefore a quite unique setting where governments and indigenous peoples can cooperate (S. Forrest, 2007). At the SDWG meeting the author attended, it could be seen, however, that although the indigenous organizations have gained this status of permanent participants, they still feel they are not commonly included in the Councils work. Many comments were on how projects would include the indigenous peoples and on matters regarding funding for indigenous participation. ASI puts much emphasis on including indigenous in its project, and later on in this paper, ideas from the indigenous on the ASI consultation process will be discussed.

Arctic Council governance

When it comes to governance of the Arctic Council, it is the Foreign Ministers (or their representative from the member states) and the political leaders of the Permanent Participants that make decisions. Ministerial meetings are held every other year and chairmanship of the Council rotates among member governments. Currently, i.e. from 2006-2008, it is Norwegian Chairmanship. Implementation of policies lies with the governments, but the Council, as a forum for Arctic issues, has built up a large knowledge base which governments can make use of when developing own policies (Arctic Council, n.d.a).

Arctic Council subjects

As mentioned earlier, the AEPS's/Arctic Council's subjects have changed from being merely focused on environmental protection to a wider view on sustainable development. Now the Council works on issues regarding environmental, social and economic matters, always having sustainable development in mind. Examples are pollution assessments and preventions, biodiversity conservation and emergency prevention and preparedness. The Council's scientific work is performed by its five working groups which each focus on specific arenas. These are:

- The Sustainable Development Working Group (SDWG)
- The Arctic Monitoring and Assessment Programme (AMAP)
- Protection of the Arctic Marine Environment (PAME)
- Conservation of Arctic Flora and Fauna (CAFF)
- Emergency, Prevention, Preparedness and Response (EPPR)

(Arctic Council, n.d.a)

Sustainable Development Working Group (SDWG)

The SDWG was established in September 1998, in Nunavut, Canada, at the Arctic Council's first Ministerial meeting. The SDWG is the group under which the ASI project is being developed as well as its precursor project, the Arctic Human Development Report (AHDR). The working group's objective is to find ways of advancing sustainable development in the region and to propose means for the Arctic states to follow in that regard. These concern protection and enhancement of the environment, economies, culture and health of the inhabitants of the Arctic. The SDWG puts emphasis on strengthening the Arctic communities as a whole (Arctic Council, 2000).

Currently the SDWG is working on 13 projects as well as three others in cooperation with other working groups of the Arctic Council. At the SDWG meeting in April, 2007, the working group expressed interest in furthering the cooperation within its own working group. ASI is already in collaboration with SLICA, ECONOR and ArcticStat but the SDWG is interested in building project clusters within its group which would be a forum for even further collaboration (SDWG, 2007; Larsen, 2007).

The ASI is one of eight projects that were approved on in 2006 and the only one being led by Iceland (SDWG, 2007). The ASI project strongly relates to the work and objectives of the SDWG. The ASI project's aim is to come up with tools to track and monitor the state of development in the Arctic. By using these tools, the results can be of great significance to the Arctic Council. The results will be able to systematically show what has worked well and what has to be improved and they can be used by the Arctic states in decision- and policy making as to insure sustainability and human development.

Human development

As to get a better sense of what is happening in the world a lot of interest has been directed at measuring the state of development and many attempts of measurement have been made, both directed at specific areas as well as the world at large. These attempts should benefit stakeholders, as with research results they get information about what has gone well, and what has to be improved. The special circumstances of the Arctic and its rapid change have made the region particularly interesting and a requisite challenge in this regard. For measuring the state of development however, it is important to fully understand what it is we want to measure; what exactly is meant by "human development".

Human development has been defined in various ways. The term is usually understood as a production of social change that promotes and advances human well-being (Forsyth,

2005). Well-being is then however also a broad and controversial term, so the job of defining and measuring development has been difficult and the versions of outcomes have been multiple (UNDP, 1990a).

According to Skevington, well-being, or quality of life, is a socially constructed term; it is not fixed but its meaning is changeable in place and time (Liu, 2006). With this in mind, it is important to take a close look at the communities in discussion and get to know the inhabitants' own views and perceptions of what is important to their well being. Some views are broadly accepted while others relate to a small population only. Looking at health as an example, it is a social goal that is widely acknowledged even though ways of measuring it may differ from place to place. Other views can however be more region-specific, and it is important to find out what they are (Andersen & Poppel, 2002).

In the various attempts to measure the state of development, different ideas have come up of how it should be done and what indicators to use. Before looking at the ASI project, and the ASI working group's ideas on how indicators should be constructed, the following chapter will discuss what is meant by a social indicator and what general ideas have been dominant during the years regarding measurements of the state of development.

Social Indicators

When measuring the state of development, the identification of appropriate indicators is of great importance. Land and McMillen define social indicators as being: "…constructs used to assess the current state of, and to measure changes in, socio-economic conditions of life in contemporary societies." (Jorgensen, Mccleary & Mcnabb, 1985). For measuring the state of development it is important to first recognize what elements are logical to measure, and then to decide what indicators are appropriate for measuring these elements (ASI Workshop, 2006).

Going back to Aristotle, he, as many of today's scholars, claimed that it was unwise to focus merely on wealth when assessing social arrangements. He argued that "Wealth is evidently not the good we are seeking, for it is merely useful and for the sake of something else" (UNDP, 1990a). Here he points out what has so often been pointed out since, that wealth can be the means towards well-being, but it is not an end.

This point of view has not always been predominant. After the Second World War the main focus concerning development was on economic development and economic growth. It was believed that growth in the capital stock would lead to development; that growth of the whole nation would "trickle down" and unavoidably benefit all members of society. GDP per capita was seen as a good indicator of measuring wealth, and therefore development, and was at this time the only type of measurement used for this purpose (UNDP, 1990b).

In the 1960s, it became clear that the "trickle down theory" did not work as was assumed. Many countries had experienced economic growth without its people gaining better well-being; poverty was still a problem and inequity was large. These facts led people to reconsider the focus of development and look to other types of measurements as GDP per capita alone did not seem to explain well the state of nations (UNDP, 1990b).

In recent decades, many attempts have been made towards finding new indicators to measure the state of development. The most influential of these is undoubtedly the United Nations Human Development Index (UNHDI) which is a set of indicators developed by the United Nations Development Program (UNDP). The elements that the UNHDI endeavors to measure are threefold: longevity, knowledge, and a decent standard of living (Forsyth, 2005). To measure longevity, the UNDP uses the indicator of life expectancy at birth; knowledge is measured through adult literacy and school enrollments; and a decent standard of living is measured as GDP per capita (Young & Níels Einarsson, 2004).

The UNHDI has been a great advancement and it has helped show that GDP per capita does not relate to human well-being beyond a certain point. The UNHDI, however, is not a comprehensive measure of the state of development. It makes a much better measure than GDP per capita alone, but as it was created in the purpose of a very wide comparison and it comprises only few indicators, it evidently does not capture all the diversity amongst countries and in some cases fails to capture elements that are indeed important to development in certain areas and important factors when it comes to human well-being (Young & Níels Einarsson, 2004). The following section looks briefly at the HDI and its weakness in applications to the Arctic context.

The HDI and human development in the Arctic

Questions have been raised of the relevance of the UNHDI to the region and of many surveys conducted by official statistical institutes. The concerns have mostly been regarding the fact that measures such as GDP per capita do not take subsistence- or mixed systems into account (Young & Níels Einarsson, 2004; Poppel, Andersen & Lyster, 2000). UNDP's measure on education, i.e. adult literacy and school enrollments, also takes for granted traditional and cultural education that passes from one generation to the next and enriches peoples' knowledge on matters important to their well-being (Young & Níels Einarsson, 2004; Project description, 2005). Even when looking at the HDI indicator of life expectancy at birth, it seems as longevity by itself is not a goal as such, of people in the Arctic. Evidently longevity is important, but it must be associated with other factors – a long life is not desirable if it is not enjoyable in other regards (Young & Níels Einarsson, 2004).

As can be seen, existent indicators like the ones used in the UNHDI, are not necessarily a good representation of the state of well-being in the Arctic. Indicators such as these may also miss out important factors that in the Arctic are essential when looking at well-

being. It has been identified that factors such as fate control, cultural integrity and close relationships with nature are features that residents in the Arctic highly value, but are not in the common measurements of the state of development and well-being (Young & Níels Einarsson, 2004). As will be seen later, these three features have become key domains in the work of the ASI working group.

This problem of inadequate representation has been recognized by some, and research has been done in the Arctic with focus on more non-material aspects of human development than in many other studies. Many of these are on a specific area or region in the Arctic, while others take on a larger view. Also studies have been done as attempts to find better ways of measuring change in human development in the Arctic region.

Case Studies on Social Indicators

Different studies have been done as attempts to describe the state of development in areas of the world. Some studies are wide-ranging and aim at giving a comprehensive picture of some area while others use few indicators to identify main characteristics. The latter is the goal of the ASI where it aims at constructing few indicators that can be used to monitor changes over time, and that are descriptive for the whole Arctic (Project Description, 2005).

An example of an indicator study on human development is one by Jorgensen, Mccleary and Mcnabb (1985) done in native villages of Alaska. In this study, personal interviews were conducted comprised of over 250 questions to which answers were open-ended. As this was a wide-ranging research they could only look at eight, of more than 200 native villages in Alaska, but consequently concluded with a very comprehensive picture of the state of development in these villages. Another example of a comprehensive study done on a small scale is one done by Hamilton and Butler (2001) on Newfoundland and the impacts of the cod crisis. This study will be looked at closer below. The SLICA project will also be

discussed below; different from the already mentioned studies, SLICA is a study that is very large in scale and includes indigenous peoples from different places in the Arctic. At the same time however it is also very comprehensive and has therefore acquired a very large data base.

Two studies, specifically aimed at indicator construction will here be looked at. These are: *Indicators for Sustainable Development: Theory, Method, Application* and *A Social Indicator System for OCS Impact Monitoring*. Similar to the ASI the goal of these studies is not to get a comprehensive picture of the state of development, but rather find a few, well representing indicators that can be used to monitor changes over time. The former one is, however, on sustainable development whereas the ASI focuses on human development, and the latter only applies to Alaska while the ASI focuses on the Arctic as a whole. These studies however give good examples and guidance on the criteria that can be used in indicator construction. Let us begin, however, by looking at Hamilton's and Butler's study in Newfoundland.

Outport Adaptions: Social Indicators through Newfoundland's Cod Crisis

Lawrence C. Hamilton and Melissa J. Butler (2001) examined change in development in certain regions in Newfoundland in connection with the 1992 moratorium on Cod fishing. Cod fishing had played a big role for the people of Newfoundland for hundreds of years, and the depletion of the fish stock and the later moratorium on Cod, inevitable had impacts on the residents. The authors of the research wanted to look at what these impacts were - what changes there had been in the state of development in Newfoundland. To look into that, the authors relied on four main dimensions, i.e. population, employment, education and crime.

When considering *population*, birthrates were looked at as well as migration and trends in migration. There was population growth in Newfoundland until the mid-1980s.

When resource depletion set in, population started to decline in all regions except for the Avalon Peninsula, which is an urban region compared to the others. After the moratorium in 1992 population declined in the Avalon Peninsula as well. The authors looked at which age groups were migrating as well as the proportion of men and women (Hamilton & Butler, 2001).

Employment was another dimension considered, which connects to migration. While many of the people in the rural regions left in search for a job, many of the people that stood behind were left jobless. The authors noted that unemployment did not necessarily mean poverty as government subsidies in many cases came as a replacement of salaries. Also in rural Newfoundland there is a strong informal economy which the residents gain from (Hamilton & Butler, 2001).

Regarding *education*, years spent at school and school degrees were considered. While lower education was high and increasing in rural areas, people with a university degree were far fewer than on the national level. The authors concern was that low levels of education would be reflected in poor human resources in the community. Higher education of the residents would increase diversity in economic activities in the communities, but as education was low, as well as many of the young people went away for seeking education and better jobs, the prospects did not look very good. *Crime* was the last dimension taken for discussion. Crime overall decreased, even though it differed in the types of crime (Hamilton & Butler, 2001). After having examined regions of Newfoundland with these four dimensions in mind, the authors had gathered a rather complete picture of the state of development. The dimensions were used as guidelines but in each dimension several factors were looked into. The authors' conclusion was that the state of development in the regions was in many ways a consequence of the Cod crisis, but that some elements of the societies were independent and not caused by changes in fishing per se (Hamilton & Butler, 2001).

Work of the Survey of Living Conditions in the Arctic (SLICA)

The survey of living conditions in the Arctic; Inuit, Saami and the indigenous peoples of

Chukotka (SLICA) was created in the aftermath of the Greenland living conditions study of

1994, as problems had been detected in data analyses of the study. In 1997, therefore, there

was no Greenland study, but instead the comparative study of SLICA was initiated (Andersen

& Poppel, 2002).

The first living condition studies in Nordic countries were carried out in the end of the

1960s and in the 1970s. A study was carried out in Greenland in 1970-73 by the Danish

Nation Institute of Social Research, but the next study after that was not carried out until 15

years later or in 1994. The study filled numerous gaps in register statistics, but many of the

results were invalid and showed a delusional picture of the state of living conditions in

Greenland. It was recognized that these problems occurred in other Arctic states as well – the

statistical surveys reflected the dominating residents, but not the indigenous population.

Considerations of these problems led to a re-evaluation of the research design and to the

creation of SLICA. The main idea was to create a new set of living conditions indicators that

would reflect the lives of the indigenous people in the Arctic (Andersen & Poppel, 2002).

SLICA went through a certain process when identifying the indicators to use.

Emphasis was put on indigenous people being involved in the process and it was made sure

that they had a say at each step. As it was the residents' well-being that the attempt was to

measure, it had to reflect their ideas of what well being meant.

The first step of the process was to identify broad social goals generally acknowledged

by the researchers or by the majority of the respondents. The social goals accepted by the

researchers were goals that are dominant in all areas of the project such as physical security

and health. How these goals are reached, however, can vary in time and place. Other goals,

specifically acknowledged by the respondents, are goals that are region-specific and vary due

to political and cultural differences as well as differences in material and technological

conditions (Andersen & Poppel, 2002).

      After having identified the main social goals, the next step was to recognize

dimensions that reflected these goals (Andersen & Poppel, 2002). The SLICA team started

out with a long list of dimensions but cut them down to seventeen. The living conditions

dimensions they ended up with are the following:

- Communication and Technology
- Community Viability
- Discrimination
- Education
- Employment/Harvest
- Environment/Resource management
- Family relations and social networks
- Health
- Household economy
- Housing
- Identity management
- Justice/Safety
- Language
- Mobility
- Political resources
- Religion/spirituality
- Work/Leisure

(ASI Workshop, 2006)

When having identified the dimensions, relevant individual and collective resources were

selected. The aim of the selection was recognizing the resources needed to obtain well-being

within the diverse living conditions dimensions. The last step of the project was to come up

with significant indicators for each dimension, i.e. the actual questions to ask in the survey

(Andersen & Poppel, 2002).

      The result of SLICA was a large database about living conditions of indigenous

residents of the Arctic. Twenty three thousand personal interviews were carried out which

resolved in in-depth information and a holistic overview of the state of development in the

communities of Inuit, Saami and the indigenous peoples of Chukotka. Now, in early 2007, the

SLICA results have been launched, where they are divided into the domains used by the ASI.

This is of great importance to the ASI, making it easier to use the data for testing the ASI indicators (Andersen & Poppel, 2002; Larsen, 2007).

Indicators for Sustainable Development: Theory, Method, Applications

The paper *Indicators for Sustainable Development: Theory, Method, Application* explains the process of constructing indicators for sustainable development. Emphasis is put on the indicators being as few as possible, but not too few as they have to represent all necessary factors. To do that - to find few but well representing indicators, they are systematically selected using specific criteria. The first step is, however, to define sustainable development as the definition will impact the process and ultimately the indicators chosen. The next step is recognizing the world different systems (Bossel, 1999).

The world is comprised of various systems and subsystems and for development to be sustainable, each systems has to be sustainable. The beginning process of indicator construction for sustainable development is therefore to recognize these systems. Three main systems are identified with different subsystems:

- Human system = social system + individual development + government
- Support system = infrastructure + economic system
- Natural system = resources + environment

(Bossel, 1999, p. 19)

When having identified the different systems, indicators are selected for each of them. To do that, a so called "orientation theory" is followed. The term "orient" is used to represent the interests and values of the systems. According to the study, all systems have the same basic orientors which are needed for systems to be sustainable. These are:

- Existence

- Effectiveness

- Freedom of action

- Security

- Adaptability

- Coexistence

- Reproduction

- Psychological needs

- Responsibilty

(Bossel, 1999, p. 31)

By having recognized these orientors, they can serve as a check list when selecting the indicators. These elements are important to all systems, so the indicators must reflect whether these elements are being fulfilled or not. To take an example of how this works, let us look at the "family system" as an example (Bossel, 1999).

Looking at the first orient on the list, *existence,* it must be found out whether the family is able to exist in its present environment. Possible indicators reflecting existence could therefore be "availability of shelter", "food" or "life expectancy". Another orient on the list is *security*. When considering whether the family is secure a "safe neighborhood" could serve as an indicator, or the family's savings and insurance. In this way, indicators are found that reflect each of the orients. Then, as to keep the number of indicators as small as possible methods such as aggregation, taking averages, condensation and so forth are used (Bossel, 1999).

In sum, the study uses system- and orientor theory to identify indicators for sustainable development. By using that specific criteria indicators can be found that reflect all important aspects of systems without being comprehensive in the way of looking at everything, which would be both very costly and time consuming.

A Social Indicator System for OCS Impact Monitoring

The report *A Social Indicator System for ICS Impact Monitoring*, describes a study made as an attempt to measure the changes in individual well-being of Alaska residents. The aim was to see what affects the OCS development activities had on the residents. To measure changes in well-being, a system was created utilizing a set of indicators that could measure changes over time (Braund, Stephen R & Associates, 1985). This project has similar goals as the ASI project, but aimed to be somewhat more comprehensive in terms of number of indicators and only applicable to the Alaska residents, whereas the ASI project aims for devising only few key indicators reflecting residents in the Arctic region as a whole. The goal of ASI is not to oporationalize some factor, i.e. measuring everything in a sense, but to find few indicators that can easily be tracked at affordable cost (ASI Workshop, 2006). To get an understanding of the process of constructing indicators, the technical side of the project will here be examined rather than the results as such.

In devising a set of indicators, the first task of the project was recognizing social goals and sub-goals. Similar to SLICA, it was recognized that the social goals could be divided into universal social goals, and then others, more culture-specific. For recognizing universal social goals, prior work in social indicators research was reviewed. To recognize the culturally specific social goals, the study team examined data connected specifically to the region as to understand concerns and values of the residents. Examples of this kind of data were regional periodicals, articles and reports on the area. The social goals identified were then tested through interviews and a comparison with current issues (Braund, Stephen R & Associates, 1985).

The next task of the study was to identify indicators for each social goal. For the indicators to be good representatives, the study group found that they had to hold certain characteristics. The principle characteristics identified were the following:

- Comprehensive, in the sense that it intends to cover all important aspects of well-being
- Limited, in the sense that the system relies on a small set of indicators for each aspect of well-being.
- Coherent, in the sense that the organization of data makes intuitive sense.
- Directly Measures Well-Being, in the sense that a high value on an indicator clearly means a high level of well-being.
- Reports Average Levels and Distributions of Well-being.
- Includes Objective and Subjective Measures

(Ibid, 1985, p. 1-2)

All these characteristics were had in mind when selecting the indicators. Further more, the study group made the selection of indicators according to explicit rules:

1. There must be at least one social indicator for each subgoal. However, the number of indicators included under a single subgoal should be limited to that which is necessary to reliably measure the subgoal.
2. The meaning of each indicator should correspond to the meaning of one, and only one, subgoal.
3. The indicator must directly measure individual well-being.
4. The indicator must accurately reflect reality.
5. The indicator must be sensitive to actual change.
6. Indicators should be expressed both as averages and as distributions of well-being.
7. Where possible, each subgoal should be described by both objective and subjective measures.

(Ibid, 1985, p. 73)

For the project not to become too costly, it was important to take advantage of existing data. For existing data to be of relevance to the project it had to meet the above rules. Also it was important that it was available on a sub-regional basis; that it distinguished between levels of well-being of Indigenous and non-Indigenous; and that the data would be collected at least every five years (Ibid, 1985).

The study group ended up with 45 potential indicators derived from existing data. When selecting the indicators, it was important however, not to limit the project to existing data as important information might never have been collected. In developing social indicators from primary data, the first task of the study group was to identify potential indicators that could be derived from direct observation or important informants; as these methods are of lower costs than survey-based data for example. Only six potential indicators were selected this way, but additional ones were identified through individual self-reports, where a conceived questionnaire was created. During the process, the potential indicators were repeatedly tested and modified (Ibid, 1985).

The ASI compared to other Arctic and/or indicator studies. Arctic studies and others aimed at indicator construction, as those described above, can be found similar to the ASI in many aspects. There are however, some pronounced differences. The goal of the ASI is to construct few indicators that can be used to track and monitor changes in the Arctic region over time. Indicator studies that already exist, however, either focus on specific areas such as the Social Indicator System for OCS Impact Monitoring which only focuses on Alaska, or studies focus on different subjects such as sustainable development while the ASI focuses on human development. Many studies done specifically in the Arctic region are then very comprehensive and look at a wide range of subjects in some small area, whereas the ASI focuses on finding few but well representing indicators for the Arctic as a whole.

SLICA is an Arctic project that as the ASI is endorsed by the Arctic Council (SDWG, 2007). These two projects work on very similar matters as both aim at giving a picture of the state of development in the Arctic, and both go through a process of selecting indicators in that purpose. Here again there are some differences however and the projects vary greatly in scope and nature. The goal of the SLICA project is to develop new indicators of living conditions

for Saami and Inuit communities in the Arctic in order to document the present state and future changes of living conditions in these areas (Andersen & Poppel, 2002). The ASI project, on the other hand, covers both non-indigenous as well as all indigenous northerners, and is working on constructing a small suite of indicators that can facilitate the ongoing tracking and monitoring of human development. In other words, the ASI working group is not working towards operationalizing some factor, describing all aspects of some phenomenon, or measuring human development as such, but rather, it is seeking to find the most suitable suite of indicators which are both generalizable and stable, easy to measure in a broadly accepted manner, and suitable for use in longitudinal analyses, thus allowing for on-going tracking and monitoring at a reasonable cost, for all residents of the Arctic. The SLICA project, which is based on survey questions, is therefore far more comprehensive and too costly for use of monitoring (Project Description, 2005).

The ASI is an initiative that will, if succeeding, be of great meaning for the inhabitants and others connected to the region. Other Arctic studies are important for the ASI as they give good guidance and ideas of inhabitants' views and experiences as well as indicator studies give ideas of how to develop criteria for selecting indicators. The ASI for this reason works in cooperation with other projects and among those is SLICA. SLICA has now for example, in 2007, categorized its results according to dimensions used by the ASI (see dimensions in chapter on ASI workshop) which is of great help to the project (Larsen, 2007).

Arctic Human Development Report

The recitation of Arctic studies has now been brought to the AHDR from which the ASI project is conceived. The development of the AHDR was a timely initiative, and the scope and significance of the report have been recognized and widely welcomed both among those concerned with Arctic affairs and among those who deal with human development in the

world at large. The goal of the ASI project is to move beyond the baseline presented by the AHDR and to devise a set of indicators in the purpose of monitoring and tracking changes in human development over time. By doing that the project will be moving towards filling an important gap identified in the AHDR and other international forums (Project description, 2005).

The Arctic Human Development Report was a project endorsed by the Arctic Council. It was the priority project of the Icelandic Chairmanship of the Arctic Council, 2002-2004 and concluded with the publishing of a book report. The report presents a broad overview of human development in the Arctic, and works as a broad knowledge-base of the Arctic Council's Sustainable Development working Group (Young & Níels Einarsson, 2004).

The AHDR overview represents the early years of the 21st century and takes into account various factors regarding human development and well-being such as demographic conditions, cultural-, economic- and legal systems, education, health and gender. It describes elements of this diverse region in good precision and the result is a unique collection of information demonstrative of state of life in the region. While the report is unique in this sense and comprises a lot of information, it does not make opportunities for measuring changes over time - it does not provide specific indicators usable for those tracking and measuring development and well-being in the Arctic from one time to the other (Project description, 2005).

After the completion of the AHDR a decision was made to do a follow-up to the report and address the gap in knowledge with respect to indicators to find ways of making it possible to monitor changes in human development in the Arctic over time. Further work in the area became the case and last September (2006) a workshop came together in Akureyri, Iceland, to start the process of designing indicators specifically intended to measure changes in the Arctic.

The Arctic Social Indicators Project

In November 2005, the International Conference on Arctic Research Planning was held in Copenhagen. At the conference there was a discussion about the idea of creating a project on Arctic social indicators as a follow up to the AHDR. The AHDR comprises a large range of information on the region but is merely a starting point – a baseline from which to measure changes in the Arctic. It was in the continuance of that meeting in Copenhagen that a working group of twenty five persons was established with the goal of developing social indicators for measuring and monitoring human development in the region over time, and at a reasonable cost (Project Description, 2005).

The intention of the project is not to operationalize the state of development as such, or to get a complete picture of the state of life in Arctic societies. The goal is to find a limited set of indicators that reflect key aspects of the state of human development. Selecting only a few indicators can be tricky as they must reflect the main important aspects. Choosing only few indicators however, makes it possible to measure changes over time at a cost that is manageable, and that is the goal of the project (Project Description, 2005).

The ASI audience

The ASI project is directed at a broad audience including the science community, residents of the Arctic, policymakers at all levels, educational institutions, students in Northern universities and colleges and not the least the Arctic Counsel and its Sustainable Development Working Group. The project is important in the sense that it can be helpful for those involved in policy processes, and may bring forth changes important to the residents and others involved (Project Description, 2005).

The ASI Working group

ASI is an interdisciplinary and international research project with a circumpolar working group of about 25 members. The members of the group are purposely very diverse. It is important that different voices will be heard and that considerations from all the different angels of society come forth. The members therefore come from different places in the Arctic; they have different backgrounds and are from a wide range of disciplines. The group comprises experts in matters regarding the Arctic region, indigenous representatives as well as scientists with experience in constructing and applying indicators in other settings. Several of the group members were also involved in the production of the AHDR (Project Description, 2005).

The ASI work plan

The first real step of the ASI project was to bring together members of the working group at a workshop held last September (2006) in Akureyri, Iceland. The purpose of the workshop was to come up with candidate indicators that would later be tested and adjusted. Another workshop is planned in the summer of 2007 where there will be further discussions and collaboration, and then a third meeting in the spring of 2008 at the Sixth International Congress of Arctic Social Sciences. At that time the goal is to have a definite indicator set complete, as well as a report explaining the results. During the process there will be several assessment procedures such as getting peer review as well as feedback from community members and members of the Sustainable Development Working Group of the Arctic Council (Project Description, 2005).

The ASI Workshop in Akureyri

The 15th of September 2006, group members of the ASI project got together in a workshop in
Akureyri. The author of this paper attended the workshop as an observer and learned about
the work and process of the group. The members met for two and a half days and in the end of
the workshop they had come up with a sketch from which they could continue. Members of
the group had prepared presentations and memos before arriving so that they could present
work they had done in the area as well as their ideas and concerns.

Representatives of SLICA, Jack Kruse presented some of the work the SLICA group
had done on indigenous communities and described how they went about it. Rasmus Ole
Rasmussen presented the results of research that was done in relation to changing processes of
hunting in Greenland. The presentations gave a good vision of existing data as well as what
factors are important to look at when measuring the state of human development. The
individual memos of the group members also provided good ideas of what factors are
important to keep in mind. Among the matters mentioned was the importance of giving a full
picture, meant in the sense that the indicators represent all different groups in society. The
importance of consulting with local stakeholders and the indigenous peoples was stressed, as
well as various suggestions on domains and indicators were put forward. Ways of organizing
the process over the next two days were also proposed, and when everyone had gotten the
chance to express their opinions, there was an agreement on moving to deciding on domains
from which indicators could later be identified (ASI Workshop, 2006).

Identifying relevant domains. In the making of the AHDR, the members of the team
identified dimensions that they felt were of importance to residents of the Arctic. These were:

- **Fate control** and/or the ability of guiding one's own destiny
- **Cultural integrity** or belonging to a viable local culture; and thirdly
- **Contact with nature** or interacting closely with the natural world.

The ASI working group members had considered these dimensions before arriving at the workshop and the possibility of selecting them domains for the project. After having heard each others ideas and comments there was an agreement of using these domains as they were seen as capturing essential features of the Arctic. Whether however these would be the only domains relied up on was not decided on. There was a comment on the subject saying that these three domains described the indigenous communities well, but that perhaps more domains were needed for a better representation of the non-indigenous people. The conclusion was to start working with these three, but in the process to consider whether more domains would be desirable, as when working on the three there might be important factors that coming up needed measuring but would not be included in the three suggested of the AHDR members (ASI Workshop, 2006).

As three domains were decided on, the working group members divided themselves into three groups, one domain selected by each, with the intention of finding candidate indicators for each of them. Discussions in groups took place after the general presentations and in the end of the day each group presented their progress so far.

On day two there was further discussion on domains. The AHDR domains were already in process but there had to be made a decision on whether, and if so which, additional domains should be added. During the production of the AHDR the HDI of the UN had been considered, but it had been concluded that they did not reflect the Arctic well. Now this discussion came up again, however, and it was suggested that even though the UNHDI indicators do not make a good representation by themselves, the domains could serve well as additional to the AHDR domains, i.e. to use, not the indicators of the UNHDI but rather the

domains from which they are based. Also it was pointed out that using the UNHDI domains

would make it possible to compare the Arctic with the rest of the world in a meaningful way.

Overall there was a consensus in discussion and the conclusion was to focus on six domains,

the three AHDR domains:

- **Fate control** and/or the ability of guiding one's own destiny
- **Cultural integrity** or belonging to a viable local culture; and thirdly
- **Contact with nature** or interacting closely with the natural world.

And three rested on the UNHDI:

- **Education**
- **Demography/health** and
- **Material well-being**.

When having the domains clear, there was time for another breakout session. The focus was

still only on the AHDR domains, but members were encouraged to keep the other three in

mind. At the end of the second day and continuing on the final, the progress of each group

was presented as well as there was a discussion about the next steps of the project (ASI

Workshop, 2006). To show the work that took place in the breakout groups, one group, fate

control, will be shown as an example.

Identifying preliminary indicators - Fate control working group. The purpose of

division into groups was to come up with preliminary indicators for each domain. When the

fate control group got together the first discussion was mainly to gain perspective on the

concept of fate control. The content was thought of as people having the capacity of making

their own decisions and resources to implement them. The concept was also understood as

having several dimensions on both the individual and collective level (such as economic-,

political- and legal). Suggestions of indicators were put forward as well as comments on where to be careful not to make mistakes. An example of these kind of speculations is that to understand peoples' capacity of decision making it is not sufficient to just look at legislation, as it is rather the peoples' own perception that counts (Fate control group, 2006).

After a general discussion the group members decided on brainstorming and getting down a list of a various candidate indicators. For choosing the best indicators of the list, the group constructed a certain matrix - a kind of check list for finding out which indicators would be the best for the project. The ideas of indicators that came up are as follow.

- Voter Participation/Political Participation
- Devolution of authority from center to local
- Rights to land/sea resources
- Proportion of local (management) personnel
- Local control over institutions and resources
- Percent of self-generated income
- Local control over key industries
- Knowledge/information about politics (media)
- Management systems – management ownership (local participation)
- Perceived political influence
- Human rights (including protection of minorities)
- Resistance
- Control over place names
- Access to information

(Fate control group, 2006)

The Matrix

The matrix was set up as a table where one can check certain characteristics for each candidate indicator. Its purpose is testing the indicators against selected criteria, to see how many of these desirable characteristic each indicator has, and additionally, which indicators

are more preferable than others. There were several characteristics that the group thought were important to look at in selecting the best indicators and that they included in the matrix. These are:

- Formal
- Perceived
- Robustness (stability over time)
- Scale (individual-, community-, regional- or national level)
- Indigenous/Non-indigenous
- Data availability
- Data sources
- Trends
- Comparability
- SLICA

The first of these is whether the indicator is of *formal* or *perceived* nature (or both). An indicator of political participation for example can be looked at formally through traditional ways like voting. Rights to land- or sea resources is an example of which can be looked at both formally (by looking at legal rights) and perceived, i.e. the inhabitants own perception of these rights (Fate control group, 2006).

Longitudinal robustness is a characteristic that is of big importance. Taking political participation again as an example, voting is something that is formally measured; it would be a stable indicator that works well in long time analyses. *Scale* is another factor the group identified, meaning which level the indicator would reflect – the individual level, community, regional or national level. Also it should be considered whether the indicator applies to *indigenous and/or the non-indigenous* residents (Fate control group, 2006).

Further categories were *data availability* and *data sources* - data sources meaning whether the data is collected by a formal or dominant system or by the community, as it must be taken into account that the source might inherent certain bias. The matrix also included

trends, *comparability* (whether these element could be compared through different regions of the Arctic) and whether *SLICA* had already a measure that would fit the certain indicators. The group went briefly through this list of characteristics for each of the candidate indicators to get an idea of how well they matched (Fate control group, 2006).

Before continuing even further, the group decided to present their idea of the matrix to the other groups of the workshop. It was put forward as a suggestion for all the groups to follow - a system which would be used so that there would be consistency among groups of the method of choosing the indicators. The suggestion was agreed upon although the specific characteristics to include in the matrix were still open to changes and left to be decided on later. Now each group could take the matrix and use it to test their candidate indicators (ASI Workshop, 2006).

Further work using the matrix

The fate control group decided that before looking closer into the matrix, more considerations were needed on the indicators. The members went through the list of indicators and defined each of them more thoroughly and looked at what their measurements would mean. Taking *rights to land/sea resources* as an example, the group discussed different modalities of owning land. In Greenland for example, people can have control over certain land even though they do not own it. Suggestions were then that perhaps a better way of measuring resource rights was to look at how much of the resources are controlled by outsiders. Discussions like these took place for each of the indicators as to refine them and get a better understanding. Also the group made suggestions on how the indicators could possibly be clustered, as the goal was to end up with only few indicators (Fate control group, 2006).

After having gone through the list of indicators more thoroughly, the matrix was brought back to the table. This time each indicator was carefully and systematically looked at

while going through each column of the matrix. Some of the indicators matched the characteristics of the matrix well and therefore seemed to be good indicators. A lot of work is though still to be done. In the end of the workshop the group discussed the next steps regarding the process. Many definitional questions are yet to be solved as well as decision-making on how some of the indicators might be combined (Fate control group, 2006).

Achievements of the workshop. At the end of the workshop a lot of work had been done and the first official step of the project had been taken. Domains had been decided on, a suggestion of a certain matrix was in process and preliminary indicators had been identified for three of the six domains. Before leaving the workshop, next steps of the project were discussed and contact persons were selected so that the ASI leaders could get in touch with the group members regarding further work. Shortly after the workshop, team leaders were selected where there were two leaders for each domain group. The team leaders' role is to enlist contributors of their group and to coordinate and lead the work regarding the construction and testing of the indicators (ASI Workshop, 2006). The following chapters will discuss the ASI's work so far.

Discussion on ASI's work and suggested indicators

Among the achievements of ASI's first workshop (in Akureyri 2006) was that members agreed on domains as well as they selected preliminary indicators for three of the six domains. Following the workshop, the additional three domains have been worked on as well as the extensive evaluation process is in progress, where working group members work on selecting the best suited indicators for each domain. The evaluation process includes using the matrix and "testing" the indicators with existing data as well as consultation with various Arctic communities (ASI Workshop, 2006; Project Description, 2005). In this chapter the suggested

indicators for the fate control domain are generally discussed as well as in some reference to the matrix. The following chapter looks at the SDWG meeting of the Arctic Council (in April 2007), and discusses the views of Arctic residents on the ASI.

Discussion on preliminary indicators for fate control

At the Akureyri workshop, the fate control working group came up with 14 preliminary indicators. By taking a closer look it could be seen that all connected to one of five subjects: political activism, economic control, decision making power, knowledge construction and human rights (Fate control group, 2006).

Political activism. Four preliminary indicators are connected to political activism. One of these is the *Voter participation/political participation* indicator, which according to the matrix seems to be a quite good one. The fate control group recognized it to be formal in nature and to have high data availability though quality of data sources might vary. Also they saw it to be robust over time; applicable to both indigenous and non-indigenous peoples; comparable in time and place and have the ability of showing trends. But what is the meaning of high/low political participation?

High political participation gives an idea of peoples' perceptions in the way that by voting or taking part in political activities, people must believe that their voice will be heard and that taking part will accomplish something. They must believe that they can have an effect on their "fate". What assumption to make when political participation is low is however more difficult. Are people not taking part because they have given up - do they feel that no matter what they do they will never be able to make a change? Or might they not vote because they are happy with things as they are and do not really think of politics? Either way, the

indicator does show however that the inhabitants are or are not *taking part* in controlling their lives on the political field.

Three other suggested indicators of fate control have to do with political activism, these are: *Perceived political influence, resistance* and *control over place names*. These indicators are not as ideal as the first one when it comes to obtainable data. They seem very important, however, and *perceived political influence* could solve the above-mentioned problem of what meaning lies behind participation (particularly low participation). Resistance, as political participation, shows that people believe that with their actions they can make some difference. Control over place names then shows directly some control they actually have. As mentioned at the workshop, these three indicators are positive as they are ways of measuring the local level initiative – they go right to the source (Fate control group, 2006).

Decision making power. Three indicators are in connection to decision making power: *Devolution of authority from center to local, proportion of local (management) personnel* and *local control over institutions and resources*. The indicator *management systems* would then probably also fall under decision making power, although not suggested a category at the workshop. These indicators should show how much power is actually in the hands of locals; whether locals are ruled by outsiders or whether they get to decide for themselves what they do and want.

If looking closer at proportion of local (management) personnel, SLICA has gathered some information about that subject so some data already exists. This indicator is according to the fate control group comparable between regions, robust over time and able to show trends. It does seem like the two former indicators imply whether locals have control over institutions so it is questionable whether the third is needed if the two former are included. Having the

third one as *perceived control over institutions and resources* might however be a good idea in regard to comparability, as it might differ between place and time what is for example perceived as an acceptable proportion of outside personnel. How ruling and dominating the people from outside are may also differ, which makes it logical to take "management" out of its brackets. Taking Greenland as an example, despite having gained home rule, there is a high proportion of Danish personnel in key administrative positions which raises the question of fate control in Greenland (Fate control group, 2006). Few outsiders in a small/indigenous community may lower the effects locals have on their life; while on the other hand, a large proportion of foreign workers in large scale industries does not necessarily minimize locals' decision making power.

With this in mind it seems that the proportion of locals in management positions would serve as a better indicator for fate control than simply proportion of all local personnel. What definition people have to bear to become "locals" also has to be clear, as if the locals of a community are comprised of different groups, a fair indicator would have to look at the proportion of people in management positions in comparison to the proportions of people in the community.

Another thought on the indicator *proportion of local (management) personnel* is how to interpret the results. It seems obvious that for fate control, a high proportion of locals is positive and a low proportion negative. From this statement it should be assumed that if the proportion of local personnel was 100% a desirable state had been reached. Is that however the case? Is some proportion of outsiders not positive for a community? Would some outside personnel not bring in new ideas that could actually have positive effects on locals? The speculations regarding this indicator of personnel, is therefore whether the scale from negative to positive might not be completely linear.

Economic control. Three suggested indicators are related to economic control: *Rights to land/sea resources, percent of self-generated income* and *local control over key industries*. These indicators are quite good according to the matrix. According to the fate control group, all have high data availability; they are robust in regard to time and at least two of them are comparable. All three indicators reflect both the indigenous and non-indigenous people though remarks may be made on the relevance of the indicator *percent of self-generated income* to the indigenous. Many indigenous people rely partly or even fully on subsistence activities, and therefore do not generate much income in the economical sense. There is however always the possibility of calculating subsistence activities and transforming them into economic terms. As a representative of the ICC mentioned at the last SDWG meeting (April, 2007), such transformation is however a very sensitive matter. This kind of implementation means transforming activities and changing them into numbers – activities that in indigenous societies not only represent material gain but their actual culture. It would therefore need much deliberation.

Knowledge construction. Two suggested indicators relate to knowledge construction, these are: *Knowledge/information about politics (media)* and *access to information.* Information seems very important in regard to fate control, as without information the paths of possibilities are either closed or unknown. In this regard it is also important to notice the nature of information as theoretic or scientific information is not always well understandable to the general public and therefore not very "accessible". Regarding the matrix the fate control group had little information about the category and presumably data availability is scarce. It seems very important, however, and necessary to look at better, but also it is good to have in mind, its connection to the education domain for not to double count.

Human rights. "Human rights" is obviously a fundamental indicator of fate control. An indicator of human rights is one that equally relates to both indigenous and non-indigenous peoples and should be comparable in place and time. Human rights are a formal indicator as they are written in law but perceived human rights are not less important.

The voice of Arctic residents – the SDWG meeting

The goal of ASI is to come up with a set of indicators that can be used to track and monitor changes in human development in the Arctic. It is important that the indicators reflect the views and experiences of the Arctic residents and for this reason the ASI puts much emphasis on consultation with communities and the indigenous peoples during the evaluation process (Project Description, 2005).

The ASI's working group is comprised of diverse members from different disciplines and regions of the Arctic namely for this purpose – so that the different voices of Arctic residents get to be heard. The second ASI workshop will be held in June, 2007 and more people have already been invited to that workshop as to reach more diversity (SDWG meeting, 2007). The ASI, being endorsed by the Arctic Council, can also use the forum of the council to get ideas and guidance from the different peoples of the region.

In April 2007, a SDWG meeting was held in Tromsø, Norway followed by a SAO meeting where the work of different working groups was discussed. The author of this paper got the opportunity of attending the SDWG meeting as an observer; experience how the network works, and to hear the voices of different peoples of the Arctic. Let us view the SDWG meeting of 2007.

The SDWG meeting of April 2007

The SDWG meeting of April 2007 took place in Tromsø, Norway. Representatives of the eight Arctic states and the six permanent participants attended the meeting as well as representatives of the IPS, other working groups, observer states and NGOs. The meeting's program took two days. Presentations presented where updates of projects, among which was the ASI, as well as new proposals. Following each presentation, discussions took place where different views and concerns could be heard.

Issues that came up during discussions were various. Many comments, not the least from the permanent participants, regarded the issue of including more participants in the projects as they felt indigenous peoples were not equally included. Budget matters were frequently highlighted, also in this same context. Regarding the ASI, questions asked were for example how to include the indigenous peoples in the project and whether only statistical data was used or also surveys. In general the comments were positive and representatives shared their support for the project.

By observing discussions at the SDWG meeting, many concerns and views were heard. To get further information however, the author of this paper along with a fellow student, talked to various indigenous and non-indigenous representatives who attended the meeting to collect feedback on the ASI and its process. Respondents were from different places in the Arctic and represented different groups. Conversations and informal unstructured interviews were scheduled with representatives from five of the six permanent participants: AAC, ICC, GCI, The Saami Council, and RAIPON as well as a reindeer herder, a representative of the IPS and from SLiCA.

As most of the respondents were not well knowledgeable about the ASI, detailed questions on the project were not asked but rather ones that were more open and general. Chiefly two questions were asked. Respondents were shown a list of the six ASI domains and

asked for their opinion on them. In that relation they were also asked to, if they could, suggest an indicator that would reflect a domain. The second question was on how they felt indigenous peoples should be included in the project.

Respondents' opinions on the ASI domains

In general the domains were considered good by the respondents. One note came forth which was that it was difficult to comment on the domains, whether they were good or sufficient, let alone suggest indicators with out getting time to consider them. No one said anything negative about the domains however, and most people started telling stories of their own communities when they saw the domains, which implies they are well demonstrative. The AHDR domains received special attention and one representative described it in the way that all the domains were important, but the AHDR domains were the foundation which the other domains rested on; these three gave the other domains meaning.

Fate control. Many comments were on the fate control domain. One interlocutor mentioned the naming of the domain and said it to be positive. While the meaning of the domain was mainly self determination, getting to the stage of self determination includes many factors. A broad term like "fate control" could therefore capture these different factors which it could not have, had it been named "self determination".

Fate control was considered important, and referred to as sovereignty, one NGO representative said it to be a subject he was working on. He said indigenous people did not have fate control, and that nation states (the United States in particular) were constantly diminishing their control. Another respondent iterated the need of self determination – self governance might be negotiable, but self determination is not, it is human rights.

When respondents were asked whether they had some ideas of indicators, the ones that came up were most in relation to the fate control domain. The suggestions mentioned are actually very similar to those the ASI has already come up with. Thoughts and suggestions mentioned were for example *protesting*, *control of resources directly* and *devolution of power*. *Education* and *research* were also mentioned as crucial for indigenous peoples' fate control, as without academic work behind them, they are not listened to.

Two respondents mentioned the issue of ownership. Both emphasized that resources were collective in nature and should not be privately owned. One of these two respondents talked about how the concept of private ownership had been forced on the indigenous peoples of Canada. Also he talked about Greenland and explained the system there, as in Greenland all land is collectively owned through the state, and the rights to use land can be inherited. The other respondent that mentioned the issue of ownership said that inherited rights to land use were negative. By emphasizing that resources should be collective he said that access to, for example hunting grounds, should be available to all and not be privately owned.

Cultural integrity. Especially two respondents talked about the importance of cultural integrity and told stories from their own communities. One talked about the colonization of westerners and how it led to cultural loss for the indigenous peoples. The colonizers brought new customs and new religion, which some were in direct contrast to the indigenous way of living. The other respondent also described how culture had changed. When talking to elders they mentioned many cultural practices, but when asking young people about these activities, many even claimed they had never been practiced. Another comment regarding culture was that many people are ashamed of where they come from. Westerners taught indigenous people to be ashamed of their identity and still today many people are. The respondent said this was bound to change.

Religion was mentioned as a very important factor when it comes to culture. Also a respondent that had talked about the importance of education mentioned its importance when it comes to the question of preserving culture.

Other four domains. The domains of closeness to nature, education, health/demography and material well being did not get as many comments as the first two. This might mean that the first two were perceived as having greater importance, but it may also just reflect the fact they were on top of the list shown when asked for their opinions on the domains. In some cases for example, lack of time explained why not all of the domains were discussed. Looking at the list of domains, the respondents however were positive and never mentioned anything that implied any of them was not important.

In some cases domains were said to have importance, and when explained why they actually overlapped other domains. Education, which in the ASI stands as an independent domain, was mentioned as important to both fate control and cultural integrity. One respondent also explained the importance of the demography domain, as if people do not reach old age, they will not be able to share their knowledge to younger generations. In this case demography connects to education.

Indigenous involvement in the ASI

The respondents were asked how they wanted to see the consultation process of ASI performed. In that regard the IPS was mentioned more than once. As the IPS has connections to the indigenous they could give guidance and information. One respondent pointed out that deliberation was needed though in consultation with the people of RAIPON as there was always the risk of fallacy in translation- or interpretation.

One idea that came forth was that ASI members should come to them – the project should be taken to the basic community. Meetings such as the Arctic Council meetings are very expensive, it is difficult for indigenous people to attend them and therefore very few actually do. When going to see the indigenous people it is also important to contact the leader of the community. The leader can be of guidance and can help project members to get in touch with the local people.

As mentioned in the beginning of this chapter, one respondent said that to be able to share an opinion on the domains, or any work of the project, he would need time to consider the information. When having looked at the domains for examples, important factors can pop up in ones head after some time, though they do not when asked directly. This can strongly be related to the consultation process. The respondent said that it was important to introduce the project to the people, and then later to do a follow up, even though that would just be over the phone. A respondent also mentioned the importance of speaking to elders and hear their stories of how things have changed.

Speaking to elders brings out the question of whether it is not equally important to speak to young people. As elders may feel saddened about the change happening in society it must be considered whether the change reflects cultural loss or cultural development and what young people opinions are in that regard.

Indigenous peoples views are crucial to the ASI project, and the next ASI workshop, held in June 2007, will have broad indigenous representation. Representatives from SLICA, ECONOR and other SDWG projects will also attend the workshop. For a transparent process and for getting further feedback from the SDWG and indigenous representatives, ASI's work will soon be available on the SDWG web. The review and consultation process will also take place this year (2007) (Larsen, 2007; ASI Workshop, 2006).

The third meeting of the ASI workshop is scheduled in May 2008 and will take place at the Sixth International Congress of Arctic Social Sciences in Nuuk, Greenland. At that time the goal is to have the indicator set complete and ready for presentation at the conference. After the ICASS conference, the objective is to have a webification of the report on Arctic Social Indicators brought out, followed by a book version (Project Description, 2005).

Conclusion

This paper has discussed the ASI project, with special attention to the ASI workshop held in September, 2006 and the SDWG meeting in April, 2007. For a comprehensive picture of the relevance and meaning of the project, the concepts of human development and social indicators were discussed; there was an examination of previous studies as well as the Arctic Council was presented, its permanent participants, and the SDWG.

The purpose of the ASI project is to find good representative indicators that can be used to measure and monitor changes in human development over time. Special effort is placed on communication with representatives from the Arctic but at the same time to make sure that work is not too costly. The first meeting of the ASI working group was, as mentioned, in September 2006, when the group identified a set of preliminary indicators. To get to that stage, the working group had to work through a certain process, starting with the identification of domains and later on selecting preliminary indicators for each of the domains chosen. To see if the indicators were good representatives, the working group came up with a matrix to check and test the indicators. The matrix contained several characteristics that were deemed desirable for the indicators to have.

The process of selecting indicators can be difficult in many respects. The project is about finding key factors that give a good view of the state of human development. The aim is not to operationalize some factor, but to find a few well represented indicators, and this can be tricky. Keeping the set of indicators small is however important as the goal is to make measurements over time; the project has to be manageable and affordable.

After a 2.5 days workshop, the project was in good process. Domains were decided on, a matrix had been made; and preliminary indicators were identified for three domains. This was, however, only the starting point and a lot more work had to be done. Definitions of

the indicators need more attention and then the indicators need to be tested with existing data and in communication with Arctic representatives.

To take a closer look at the preliminary indicators suggested at the first ASI workshop, the indicators for one domain (the fate control domain) were discussed. The indicators seem to represent important factors. Some indicators have the problem of low data availability as well as thought has to be given to the interpretation of their results. Perceived indicators often seem as the only solution, but as to keep costs down it is important to find ways of using already available data.

To assess ASI's work and get ideas and feedback on how its consultation process should be carried out, representatives of different Arctic communities were interviewed informally, and asked about their views and suggestions. The respondents were positive towards the ASI and the domains chosen. Regarding the consultation process, respondents mentioned the IPS, and a suggestion was made that the ASI members should visit the communities and talk to the indigenous peoples there.

With ongoing work, a final outcome of the ASI is expected in 2008 with a publication of a report. If succeeding, the results of this project will be of critical importance and can be used pragmatically. It will be of great significance for the science community, policy makers and Arctic stakeholders in general. Lastly but not the least, it may result in positive changes for the residents of the region.

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