




Research needs for knowledge-based tourism management in Svalbard

Findings from the Optimal Tourism Balance Workshop

Visit Svalbard, Norwegian Institute for Nature Research (NINA), and Association of Arctic Expedition Cruise Operators (AECO) organized the Optimal Tourism Balance Workshop in Longyearbyen, Svalbard September 11-13, 2019, with funding from the Svalbard Environmental Protection Fund. The goal was to discuss, define and pitch research projects that can help Svalbard find the optimal tourist balance in tourist development, focusing on the areas of environment, local community, and search and rescue. Full report and list of research need available here: www.aeco.no/research/

 Environment	 Local Community	 Search and Rescue
<ol style="list-style-type: none"> 1. Cumulative impact from tourism on animals and nature in Svalbard 2. Comparative study of GPS-tracked human traffic with GPS-tracked animals 3. Profiling visitors to Svalbard 4. Citizen science: real-time app with feedback information on rules and vulnerability 5. Sensitive area surveys to inform allowable tourist activity and impacts 6. Exploring actions and solutions to limiting number of visitors 7. Current status of existing research on impacts of vessels on marine life 	<ol style="list-style-type: none"> 1. Local visions and values: A study of quality of life on Svalbad (Longyearbyen, Barentsburg) 2. Knowledge about tour operators, visitors, and people of Longyearbyen including guides 3. Accuracy and relevance of rules and regulations 4. Innovations and technologies 5. Legal framework 	<ol style="list-style-type: none"> 1. Organization of emergency reception camps on land or on another vessel in case of mass evacuation 2. Capacity thresholds: Identifying acceptable number/group of tourists in certain areas based on safety considerations and capacities 3. New technology to efficiently rescue multiple people by helicopter 4. Mapping training and competence needs in the Arctic maritime industry 5. Projects developing and implementing new technology 6. Sustainable tourism economy project funded by tourism tax

Environment



1. What is the cumulative impact from tourism on animals and nature in Svalbard?

There is a tendency to look at all impact factors separately. We need to understand the sum of all pressuring factors, looking at the cumulative impact as a whole.

2. Comparative study of GPS-tracked human traffic with GPS-tracked animals

Will give knowledge on impact on animals (feeding time, area of use etc.) from traffic (snowmobiles, dog teams, skiers etc.) with the purpose of reducing impact on animals.

- GPS-trackers on visitors and animals (polar bears and reindeers)
- Give info to government bodies about how traffic might be directed away from/into special areas

3. Profiling visitors to Svalbard

Social science on who the tourists are, their attitudes, expectations etc. with the purpose of shaping information to influence tourist behavior in consideration of wildlife and environment.

- Which tourists do we want to come to Svalbard?
- Standards research, easy to make and structure
- Knowledge for operators, segmented marketing and campaigns
- How to pack information in an understandable way that has impact from environmental management perspective

4. Citizen science: real-time app with feedback information on rules and vulnerability

Tourists/users reporting real-time in an app and getting feedback and information on rules and vulnerability in the area they are in. Will give visitors better understanding of the reasons behind rules and regulations

- More real-time info for the management
- Visitors/users will be included in the dialogue about environmental management

5. Sensitive areas surveys to inform allowable tourist activity and impacts

Making a comprehensive area survey on which areas are sensitive around the island with the purpose of limiting the impact on animals and nature.

- Sensitive marine areas for go and no-go
- Landscape parameters that come from satellite monitoring
- Make good knowledge-based choices on landing sites

6. Exploring actions and solutions to limiting number of visitors

Research project on what the action and solutions on limiting number of visitors would look like with the purpose of reducing impact on the environment.

- How to arrange it and how to coordinate it with operators?
 - Relocating groups based on number of people on land during certain time and day
- Qualified Svalbard guides on board - What would the qualification be and how to implement it?

7. Current status of existing research on impacts of vessels on marine life

Determining the impact of cruise tourism on marine mammals with the purpose of developing regulations based on the impact

- Identifying knowledge gaps
- What impact does i.e. noise, light and pollution from ships have on these organisms

Local Community

1. Local visions and values: A study of quality of life on Svalbad (Longyearbyen, Barentsburg)

- What is the role of tourism in realizing local visions and values?
- What models can we use to define optimal balance and tipping point?
- How do we define the measurement criteria?

Purpose: To understand the status quo from the local perspective and adapt for the future taking the communities' views into consideration = striving for sustainability

2. Knowledge about tour operators, visitors, and people of Longyearbyen including guides

- How many people stay without being registered officially? How is short-term stay related to the housing situation?
- How does the language barrier correlate with tourism and influence the community?
- How many tourists are invisible under the category of "hotel guests"?
- What is the role of tourism in realizing local visions and values?
- What models can we use to define optimal balance and tipping point?
- How do we attract the optimal client?
- How do we define the measurement criteria?
- What does "sustainable tourism" mean to tourists, guides and local communities?
- Is it possible to find a balance acceptable for all?

Purpose: Understanding better the current development in order to plan for the future

3. Accuracy and relevance of rules and regulations

- Are the current rules and regulations relevant to the current situation?

Work Packages: see above

Purpose: To adapt rules and regulations to actual needs and foster viable economy, to have safer and more environmentally sound operations, to have better overview of people and nature, to work for an economic sustainability in the future

4. Innovations and technologies

Which innovations and technologies could be tested on Svalbard?

- How can technological innovations help improve sustainability on Svalbard?
- Which of the technological innovations can be relevant for tourism?
- How could we measure the impact of tourism in MA10?
- How could tourism and science benefit from each other?

Purpose: Use the potential of the extreme place ("destination Svalbard") so that sustainable tourism (and life in general) can be fostered

5. Legal framework

- What is rule of law and legal background of the existing framework? What is needed if amendments are to be made?

Purpose: Consolidate the status quo with the needs of the place and community

Search and Rescue

1. Organization of emergency reception camps on land or on another vessel in case of mass evacuation

How to organize emergency reception camps on land or on another vessel in case of mass evacuation?

- What equipment, who owns/funds the equipment, where is it located?
- What kind of procedures there would be for it? Training?
- Who would be the main user?
- What kind of collaboration does this need?

Purpose: to increase the SAR capabilities and operational efficiency in Svalbard

2. Capacity thresholds: Identifying acceptable number/group of tourists in certain areas based on safety considerations and capacities

- What is the Magic Number when it comes to the acceptable number/group of tourists in certain areas based on safety considerations and capacities? In order to enforce any regulation limiting the number of tourist in certain areas, there is a need to find what that number is.
- Consider different regulations for different size of vessels?
- Compare SAR capacity to the group numbers.
- This would have to consider all aspects including community involvement, environment etc.

Purpose: map if there is a need to regulate the number of tourists arriving to Svalbard

3. New technology to efficiently rescue multiple people by helicopter

How to efficiently rescue multiple people, instead of winching up only one or two at a time?

- Develop new or use existing technology from other industry areas to increase the speed and efficiency in Mass Rescue Operations

Purpose: to increase SAR capacity and efficiency in SAR operations.

4. Mapping training and competence needs in the Arctic maritime industry

Mapping training and competence needs in the Arctic maritime industry

- Specific needs and training courses for guides, crew members etc. What do they contain?
- Needs that come from existing regulation like the Polar Code
- Take the guest point of view into consideration, guides/guests/passengers are a resource when it comes to SAR operations

Purpose: mitigate risks and increase operational efficiency

5. Projects developing and implementing new technology

Develop and implement new technology that is needed in preparedness, safety and SAR

- Map ongoing research projects on what the needs are and what has been developed in order to start implementation
- How to start implementing the technology?

Purpose: increase the uptake of innovations and provide new technology in order to increase safety

- E.g. Ice Watch App developed by the Norwegian Ice Service to send out ice information on a smart phone, providing real-time information on ice movements with citizen science utilized to provide observations.

Purpose: guides and operators need high resolution data, would improve safety and provide real time data and picture

6. Sustainable tourism economy project funded by tourism tax

Fund research on the total environmental impact and social economy by enforcing a tourist tax, which would be dedicated to funding research projects that increase sustainable tourism economy

- Tourism is increasing in Svalbard however we do not know how it affects society
- Enforcing a tourist tax could provide funding to make tourism safer for the people and the environment
- Putting on a tourist tax, so we could use that funding to make it safer for the people and the environment

In this umbrella, funded by the tourists, we could carry out research on how to make tourism sustainable in the future