



Framework Contract No MARE/2012/07

***Support to the Implementation of the Integrated
Maritime Policy of the EU***

Specific Contract No 3

Study on Arctic Lay and Traditional Knowledge

October 2014

Objectives of the Study

- *Identify ongoing and concluded community-based monitoring and observing programmes in the European Arctic to feed into the "Atlas of Community Based Monitoring in a Changing Arctic"*
- *Provide a detailed overview of local and traditional knowledge (LTK), based on the programmes surveyed*

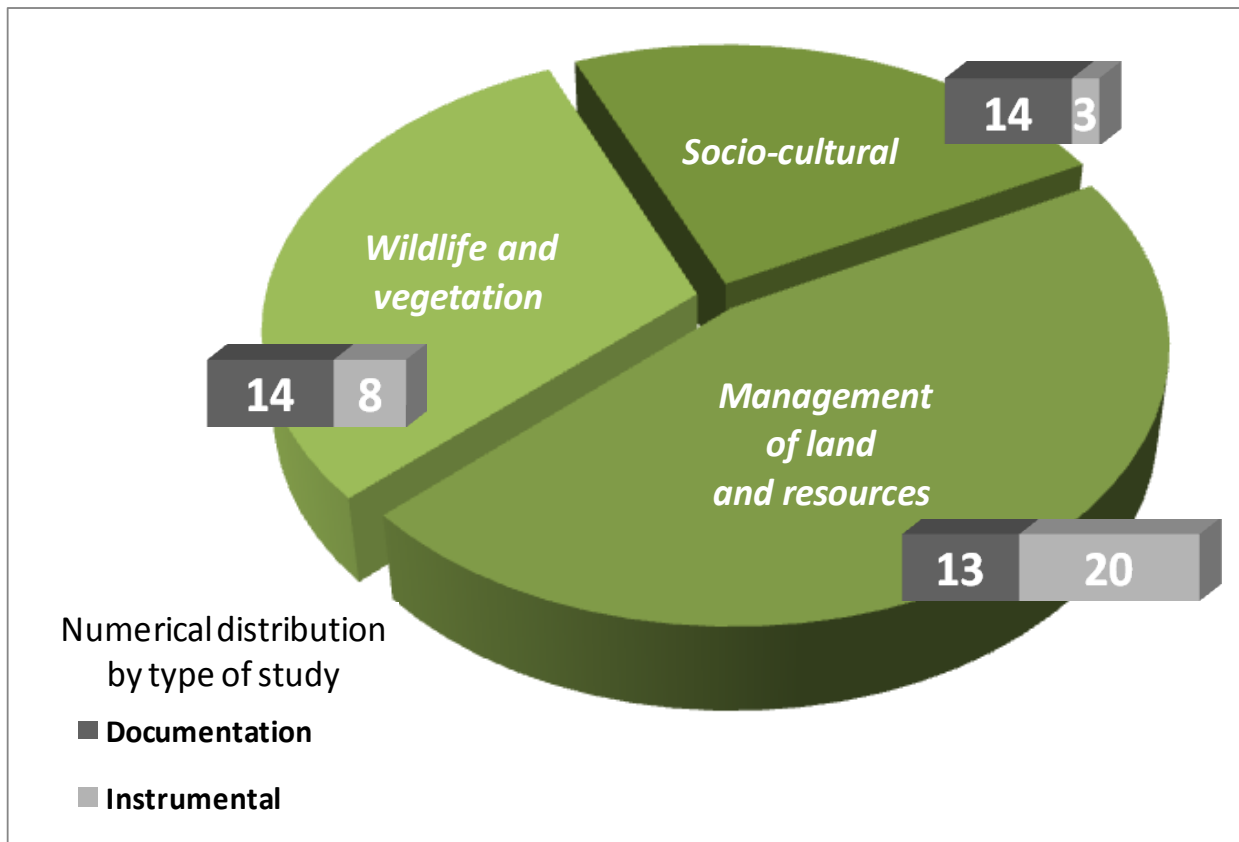
Geographical Scope



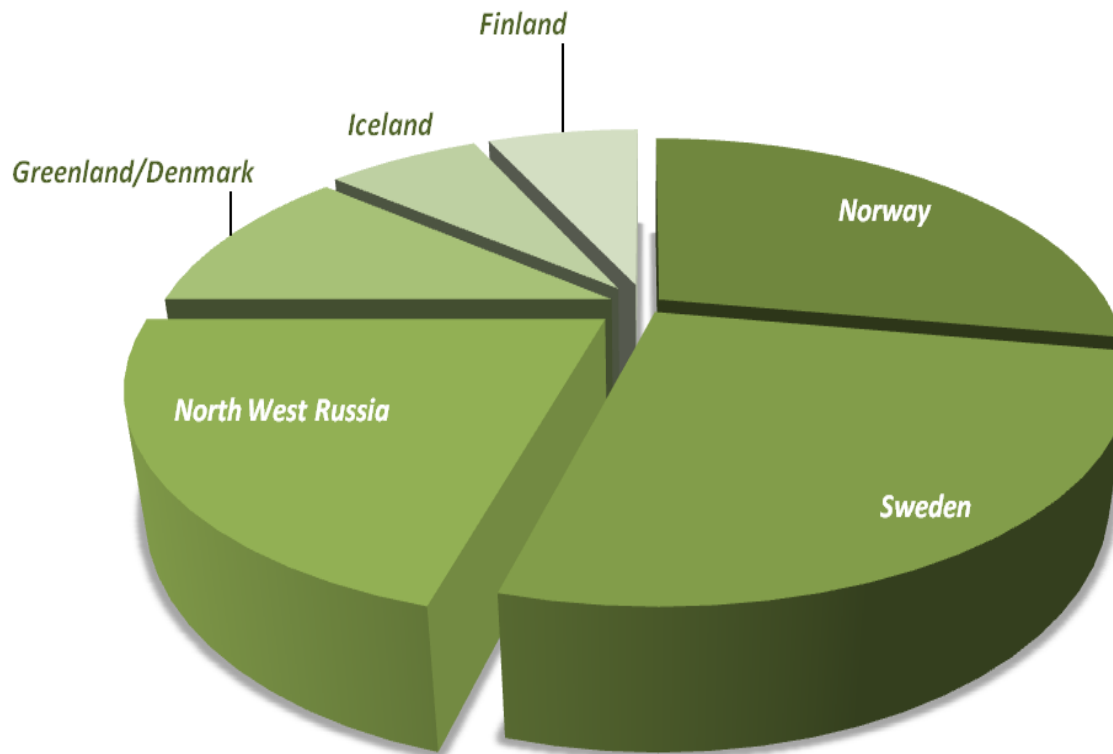
Community-based monitoring and observing programmes

- *72 community-based monitoring and observing programmes were identified through questionnaires, workshops, and literature analysis*
- *Basic data on these programmes were collected according to a questionnaire form developed by the ICC*
- *Generally speaking, information is accessible to the public (57 programmes), although sometimes permission is required. For 12 programmes information was not accessible. For a further 3 programmes, we have no information as to the accessibility of their data.*

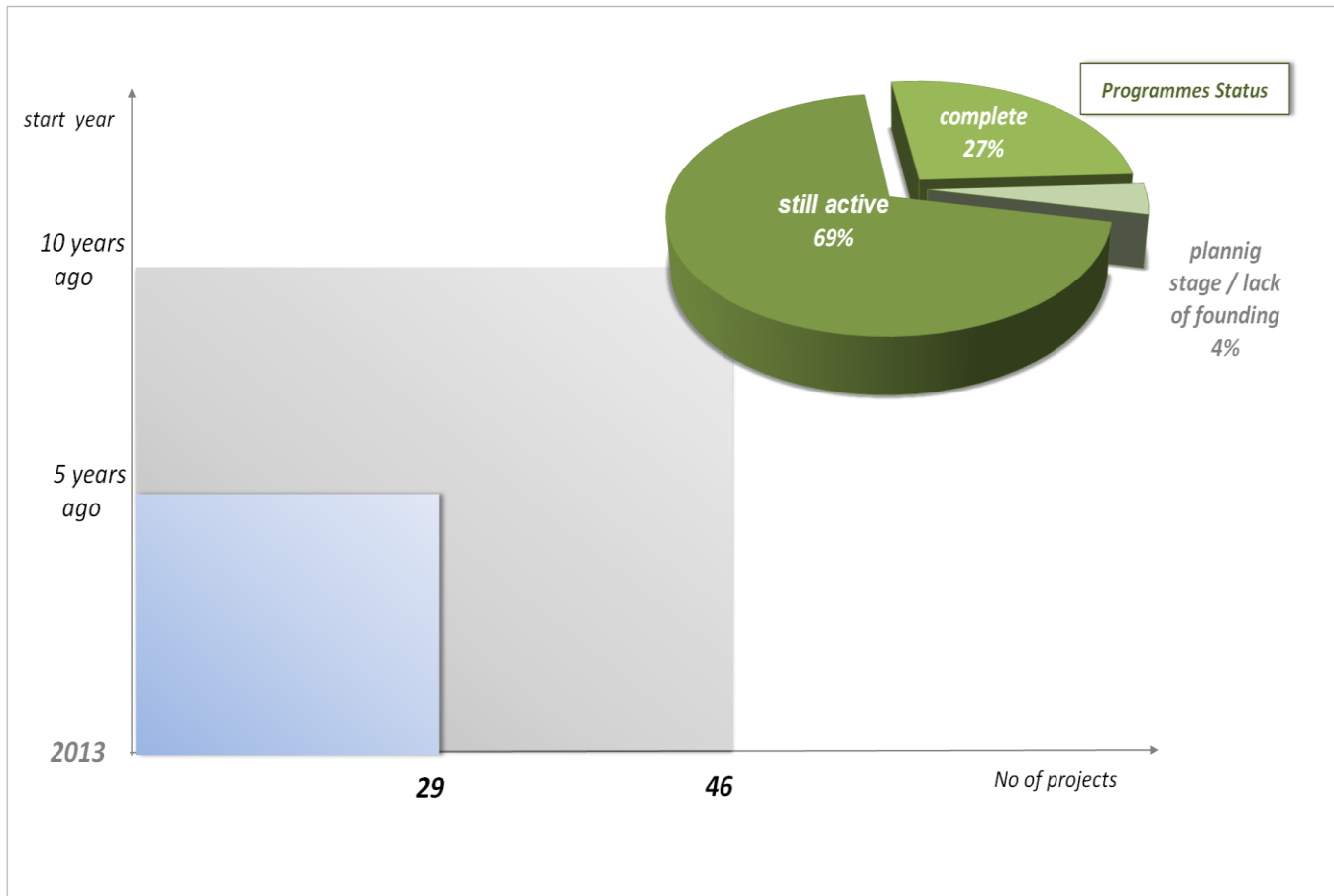
Type of programmes



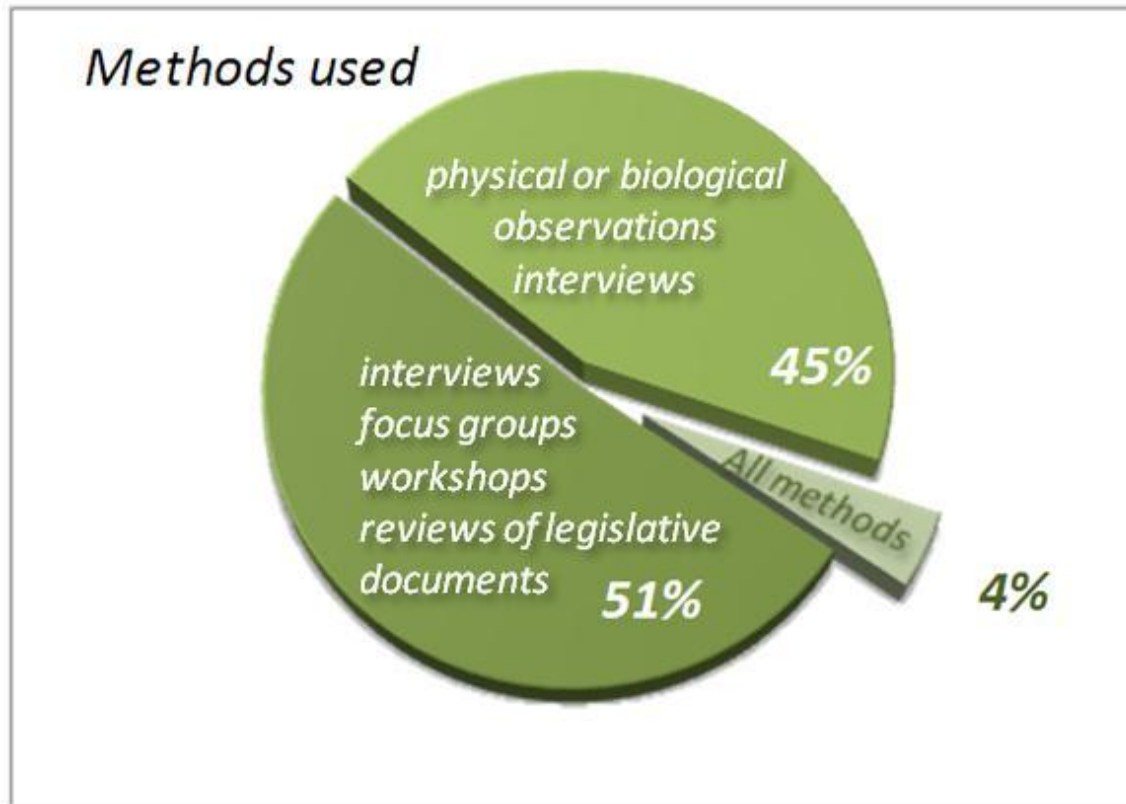
Distribution of programmes



Distribution of programmes over time



Programmes by method



Main findings from the analysis of community-based monitoring and observing programmes

- *Most community-based monitoring and observing programmes are probably programmes led by **fishers, herders, hunters** etc. who have **informally** been monitoring resource conditions for millennia.(Mascia et al. 2014). **Without extensive fieldwork, these programmes are very difficult to document***
- *Many community-based monitoring and observing programmes in the European Arctic are '**one-off**' **surveys** firmly led and owned by researchers but with some involvement of community members in various stages of the initiatives*
- *In many of these initiatives, **researchers remained in the 'driving seat'**. Only in 27 programmes community members were involved both during the programme design, data collection and analysis*

Analysis of Local and Traditional Knowledge

LTK may be broadly defined as a system or “cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission, about the relationships of living beings (including humans) with one another and with their environment” (Berkes, 2008:7)

Based on the analysis of community-based programmes, LTK was grouped into 5 main themes:

- 1. Climate change impacts, mitigation and adaptation**
- 2. Tackling food security**
- 3. Governance and resource rights**
- 4. Cultural identity**
- 5. Conservation of biodiversity and habitats**

Climate change

LTK contributes to:

- *Creating information management and knowledge sharing systems, combining LTK with scientific research to ensure food availability*
- *Optimizing social networks: subsistence food sharing networks, cooperative hunting, etc.*
- *Monitoring changes in subsistence-oriented behaviour (harvesting, distribution and consumption) and impact on community food distribution networks*
- *Identification of factors affecting specific food resources (e.g. freshwater fish).*

Tackling food security

LTK contributes to:

- *Setting baselines (e.g. to observe migration patterns and identify changes, to identify factors affecting population variations, etc.) to guide scientific efforts.*
- *Combining spatial and ethnographic data to document and understand the changes underway*
- *Identifying adaptation strategies developed by local communities to measure levels of resilience*
- *Collecting evidence on human-ecological change and interaction throughout the last century, including environmental impact assessment, spatial planning projects and nature preservation programmes.*
- *Developing monitoring programmes which include locals as observers (e.g. hydroelectric reservoirs impacts on the status of watershed and natural resources that depend on it)*
- *Feeding worldwide scientific networks and communities of practitioners in climate change.*

Governance and resource rights

LTK contributes to:

- *Enhancing dialogue and engagement among main Arctic actors as well as decision-making processes*
- *Contributing to consensus building and implementation of actions*
- *Informing public policies (environmental, development, etc.) and mitigation measures*
- *Designing adaptive management systems for natural resources*
- *Achieving symmetric collaborations between communities and scientists*
- *Identifying local or community-dependent needs and conditions calling for attention by the authorities*

Cultural identity

LTK contributes to:

- *Monitoring the sensitivity of traditional activities to potential disruption by changing conditions*
- *Fostering sustainable business development in cultural sectors*
- *Quantifying traditional values (respectful and reciprocal relationships)*
- *Promoting knowledge transfer through training and capacity building*
- *Promoting LTK awareness to target audiences (policy-makers, scientist and the general public).*



Conservation of biodiversity and habitats

LTK contributes to:

- *Mapping and tracking habitat use of endangered species.*
- *Maximizing locals skills (e.g. tagging by native hunters)*
- *Describing reference topics (e.g. the ice and sea-ice situations) in the Northernmost inhabited areas.*
- *Improving public participation in wildlife conservation programmes (e.g. marine wildlife) with local engagement and interest.*
- *Coupling global and local problems and promoting broad alliances.*

Thanks for your attention!