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Title: *Traditional Knowledge, Adaptation to Climate Change and Globalization in Circumpolar Reindeer Husbandry: The Voice and Knowledge of Reindeer Herders*

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Indigenous peoples in the Arctic face major challenges related to changes in their societies and the northern climate. There is an urgent need for increased understanding and action in circumpolar reindeer herding societies related to the effects of climate change and development. Understanding reindeer herders' ability to adapt to climate change and the rapidly changing use of the Arctic territories is important for sustainable development in the Arctic.

IPY/Arctic Council EALÁT has focused on the ability of reindeer herders to respond to climate change and changed use of the Arctic, and to communicate this to both herding and mainstream societies. Priorities have included informing reindeer herders about the findings of other IPY-projects, informing the mainstream society about reindeer herders' knowledge related to climate change, land use change and adaptation, as well as being 'the voice of reindeer herders' to the Arctic Council system and mainstream society on these issues.

IPY/Arctic Council EALÁT organised a series of 21 community-based workshops in local reindeer herding societies across the Arctic, where reindeer herders from different areas, scientists and authorities have been brought together to address the challenges of climate change and land use change, while focusing on adaptation and traditional knowledge. In a combined effort within the IPY EALÁT Consortium the project has organised community-based workshops in Norway, Sweden, Finland and Russian Federation (Nenets, Yamalo-Nenets, Sakha and Chukotka) and Canada.

As input to the workshops, historical local climate data from each region has both been collected and subject to statistical downscaling, in cooperation with the



Norwegian Meteorological Institute and Arctic and Antarctic Research Institute in St.Petersburg. Through the workshops, examples of adaptation and traditional knowledge has been identified and analyzed in different herding communities in Fennoscandia and Russia. Experiences with climate variability and loss of pastures have been discussed, and examples of traditional knowledge-based adaptation has been identified. Policy-recommendations have been formulated and key findings have been summarized in the final EALÁT report to the Arctic Council Ministerial Meeting in Nuuk, 2011 (Magga et al, 2011). A key aspect of IPY EALÁT has been methods for integrating traditional knowledge with science (Eira, 2012; Bongo et al, 2012; Magga et al, 2011; Oskal et al, 2009). In a recent evaluation of Norwegian climate research, Rosswall et al (2012) also focus on the EALÁT place- and community-based approach as an example of bridging the gap between universities and society, and between science and traditional knowledge.