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ENGAGEMENT, CREATIVE DESIGN AND COLLABORATIVE STRATEGIES: LESSONS FOR A RESILIENT ARCTIC

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Coping with large-scale Arctic environmental change resulting from a shifting climate, global population expansion, and growing markets, will require creative, solution-oriented research and applications, long-term commitment, cooperation, and open dialogue to achieve sustainability, resilience, adaptation and preparedness. While the extent and scale of activities and development in the Arctic are new, lessons learned from past experiences and from other regions around the world may serve as much-needed examples of collaborative solutions towards desired future outcomes, the creation of new economic opportunities, healthy Northern communities, mitigation strategies to counteract negative changes, and the achievement of long-term conservation of vital ecosystems, habitats and species. How will we detect thresholds, prevent irreversible negative changes and avoid tipping points in Arctic and global systems? How do we choose the best strategies within short time frames as change is already occurring? What examples exist of successful initiatives relying on the combined information stemming from traditional knowledge and targeted community and scientific research to engineer novel solutions? Here, examples of adaptive management and successful collaborative strategies are highlighted to serve as illustrations of creative solutions to local and global challenges. Such examples can be adapted to suit an array of circumpolar settings, from the community to the international level. Active discussions to discover novel strategies for building resilience are essential to prevent widespread degradation of Arctic ecosystems and lifestyles, and require the engagement of stakeholders in diverse disciplines and at all levels, including residents, entrepreneurs, scientists, and decision-makers within and beyond circumpolar regions.