

Annex 2: Final Objective Templates (Note: These are considered final with the information available at the time the mid-term report was adopted at the MoP, but will be changed as implementation proceeds)

Objective 1: Track and reduce emerging threats to polar bears

What Threat is this Linked to? Other (oil spills, mineral and energy resource extraction and development and associated infrastructure, contaminants and pollution, shipping, tourism, disease and parasites).

What level are the Threats? Low, medium to low

How will progress toward this objective be evaluated? Not yet identified.

What are the Performance Metrics? Not yet identified.

Proposed Workplan – Circumpolar Actions

#	Description	Timeline	Lead Country and Method of Implementation
ET-A1	Develop and implement a procedure for “horizon scanning” for emerging threats		

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Objective 2: Communicate to the public, policy makers, and legislators around the world the importance of mitigating GHG emissions to polar bear conservation

What Threat is this linked to? Climate change and extent and composition of sea ice
-Impact(s): Prey abundance or distribution, Loss of essential habitat or access to essential habitat

What level is that Threat? High

What level is the Impact(s)? Medium, High

How will progress toward this objective be evaluated?

1. Increased awareness in the general public — both locally and globally — about the impacts of climate change on polar bears, due to insights and information provided by the Range States as it relates to their cooperation on polar bear conservation.
2. Increased awareness among decision makers about the impacts of climate change on polar bears, consistent with insights and information provided by the Range States as it relates to their cooperation on polar bear conservation.
3. Amount of misinformation regarding the impacts of climate change on polar bears among the public, policy makers, and legislators.
4. New strategic communication partnerships enable climate change communications messages developed by Range States to be delivered to target audience(s).

What are the Performance Metrics?

1. Traffic to the RS Climate Change Communications webpage.
2. Social media engagement and effectiveness
3. Number of Climate Change Communications partnerships formed with organizations that have targeted audiences and strong public reach.
4. Number of strategic communication opportunities where climate change communications messages have been developed by Range States and delivered to target audience(s).
5. A way to measure overall awareness (Needs to be identified).

What is the baseline? Traffic to RS website (need to determine current traffic and traffic at time of establishment), no climate change communications content on website, partnerships, or communication opportunities identified/ established.

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Proposed Workplan – Circumpolar Actions

#	Description	Timeline	Lead Country and Method of Implementation
CCC-A1	Establish baselines for the performance metrics (if the baseline actions above are adopted then remove this action).		Comms WG
CCC-A2	Develop a climate change communications plan that outlines key messages (e.g., how climate change effects vary among subpopulations on both temporal and spatial scales, impacts to prey and denning habitat) regarding the threat to the Arctic and to polar bears from climate change and the need for the global community to reduce GHG emissions		Comms WG (or Climate Change Communications WG)
CCC-A3	Identify strategic communications opportunities for the Range States to provide information regarding the threat to the Arctic and to polar bears from climate change and the need for the global community to reduce GHG emissions		Comms WG
CCC-A4	Maintain a climate change communications page on the RS website		Comms WG
CCC-A5	Enter into climate change communication partnerships with organizations that have targeted audiences and strong public reach		Comms WG (or Climate Change Communications WG)
CCC-A6	Communicate key messages regarding the threat to polar bears and to the Arctic from climate change and the need for the global community to reduce GHG emissions		

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Objective 3: Ensure the conservation of essential habitat for polar bears.

What Threat is this Linked to? Climate change and extent and composition of sea ice

- Impact: Loss of essential habitat or access to essential habitat

What level is that Threat? High

What level is the Impact? High

How will progress toward this objective be evaluated?

- Relative to the baseline essential habitat inventory, changes in the amount of essential habitat in each category as identified by the PBSG (i.e. feeding habitat, mating habitat, denning habitat, migration corridors, and terrestrial refugia) (PBSG).
- Relative to the baseline value, changes in the amount of essential habitat in each of the conservation status categories (PBRs).
- Circumpolar objective: Essential polar bear habitat is consistently described and tracked over time/better understanding/more clarity at the circumpolar level so that each RS can do their job better.

What are the Performance Metrics?

- Changes in the amount of essential habitat available in each category in each two year period and compare that to the baseline value to monitor success in conserving essential habitat.
- Changes in the proportion of essential habitat that is in each conservation status category.

What is the baseline?

- Does not currently exist

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#	Description	Timeline	Lead Country and Method of Implementation
EH-A1	The PBSG will be asked to define categories of essential polar bear habitat and then compile existing information to generate an inventory of essential habitat by the categories (and identify gaps in existing information).		
EH-A2	Define levels of protective status of polar bear essential habitat (likely 3 categories)		
EH-A3	For each of the areas identified by the PBSG as essential habitat, the Range States will identify the conservation status applied to that habitat (as defined by the previous action).		
EH-A4	In each 5 or 10 year period, the Range States will be asked to identify any changes in protection status for essential polar bear habitat.		
EH-A5	In each 5 or 10 year period, the PBSG will be asked to provide an inventory of essential habitat by the categories identified previously by the PBSG.		
EH-A7	Develop messages about the importance of conserving essential habitat		
EH-A8	Develop messages about changes in the amount (spatial and temporal) of essential habitat		
EH-A9	Redo of Durner et al. 2009. An update of this paper to see whether sea ice habitat and polar bear distribution have changed as projected		

Proposed Workplan - Circumpolar Information Exchange/Compilation

#	Description	Timeline	Lead Country and Method of Implementation
EH-IS1	Share existing BMPs addressing potential impacts for mineral and energy exploration and development on essential habitat		

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Objective 4: Ensure that harvest of polar bear subpopulations is managed in a biologically sustainable manner in accordance with sound conservation practices.

What Threats is this Linked to? Unsustainable Harvest and Illegal Take/Poaching

What level are the Threats? Medium-Low, Low

How will progress toward this objective be evaluated?

- The proportion of subpopulations where harvest levels are biologically sustainable
- The proportion of subpopulations where a demonstrated harvest management regime exists
- Clarity in terms and consistency in evaluation of harvest across subpopulations and development of methods used to analyze samples collected from harvested bears

What are Performance Metrics?

- The proportion of subpopulations with harvest which have a quantitative assessment of the population, including accounting for associated uncertainty
- The proportion of subpopulations where harvest data and associated uncertainty is available.
- The proportion of subpopulations where harvest is determined to be biologically sustainable based on a quantitative assessment.
- The proportion of subpopulations where quotas and harvest are within biologically sustainable limits (as defined by performance metric 3).

What is the baseline?

Needs to be established

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Proposed Workplan – Circumpolar Actions

#	Description	Timeline	Lead Country and Method of Implementation
HM-A1	Define the components necessary for a “quantitative assessment of the population”.		PBSG, Canada, US
HM-A2	Define “biologically sustainable harvest” in terms of conserving polar bear subpopulations for future generations.		PBSG, Canada, US
HM-A3	Define the components of a “demonstrated harvest management regime”.		PBSG , Canada, US
HM-A4	RS submit a description of the harvest regime for each subpopulation addressing the following: whether a quantitative assessment of the population exists (with uncertainty), available data on harvest and associated uncertainty, whether harvest has been determined to be biologically sustainable based on a quantitative assessment, including associated uncertainty and whether quotas and harvest are within biologically sustainable limits (as defined by performance metric 3).		
HM-A5	Compile an evaluation of Biologically Sustainable Harvest for each Polar Bear subpopulation, considering the influence of climate change.		
HM-A6	Methods development to collate available data from harvested bears and how to analyze that data. Could potentially inform indicators to be incorporated into harvest management (could result in recommendations for what data to be collected from harvest bears and how to collect it).		

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Objective 5: Manage human-bear interactions to ensure human safety and to minimize polar bear injury or mortality

What Threat is this linked to? Human-bear conflicts

What level is that Threat? Medium

How will progress toward this objective be evaluated?

Change in the number of bears injured or killed in conflict situations and in the number of humans injured or killed by bears, compared to the baseline.

Performance metrics:

1. Number of bears injured or killed in conflict situations.
2. Number of humans injured or killed in conflict situations.
3. Number of human-bear conflicts resolved without injury or death (i.e., successful use of nonlethal deterrents).
4. Number of communities with human-polar bear conflict management bear plans.

What is the baseline?

1. Bears injuries and deaths needs to be defined using 2020 as the baseline year to minimize bias due to underreporting in the past.
2. Human injuries or deaths as reported in the 2006-2015 time period (Wilder et al. 2017)

Proposed Workplan – Circumpolar Actions

#	Description	Timeline	Lead Country and Method of Implementation
HBC-A1	Make available to all Range States the Polar Bear-Human Information Management System (PBHIMS); use SMART where possible.		Conflict Working Group
HBC-A2	Develop standardized data collection protocols for human-bear incidents which result in injury or death (to bears or humans)		Conflict Working Group
HBC-A3	Establish baseline for bear injuries and deaths using existing data from 2020.		Conflict Working Group
HBC-A4	Establish baseline for human injuries and deaths using existing data from 2006-2015.		Conflict Working Group
HBC-A5	Report findings on human-bear conflicts which end in injury or death (to bears or humans) annually on the RS website for each country or subpopulation		Conflict Working Group
HBC-A6	Develop standardized polar bear attack response protocols (WHART)		Conflict Working Group

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HBC-A7	Develop, and post to the RS website, core polar bear safety messages for a general audience and more detailed guidelines for specific user groups (e.g., industry, guide-led tourist groups, hunting/subsistence camps, researchers) as needed. One such product is tourism-operator guidelines to be published on the RS website and shared with The Association of Arctic Expedition Cruise Operators (AECO) etc.		Conflict Working Group
HBC-A8	Develop a template for site-specific, community conflict management plans and standardized training protocols.		Conflict Working Group

Proposed Workplan - Circumpolar Information Exchange/Compilation

#	Description	Timeline	Lead Country and Method of Implementation
HBC-IS1	Share information related to strategies for responding to the potential for large numbers of bears stranded on shore near communities and human developments and consider the consequences including those for human safety.		
HBC-IS2	Make available on the RS website Bear deterrent training protocols from the U.S., Canada, and Norway		
HBC-IS3	Collaborate and share information on applied research and testing of new deterrent tools (i.e., drones, olfactory, electric fences) on wild and captive bears.		
HBC-IS4	Share BMPs for minimizing the impact of tourism-related activities on polar bears		

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Objective 6: Ensure that international trade of polar bears is carried out according to conservation principles.

What Threat is this Linked to? Unsustainable harvest, illegal take/poaching

What level is that Threat? Medium low, low

How will progress toward this objective be evaluated?

1. International trade carried out in compliance with CITES.
2. Decrease in the number of CITES violations.
3. No increase in the number of incidents of poaching.
4. Increase in the proportion of recommendations from the TWG that have been implemented by all 5 Range States.

What are the performance metrics?

1. Number of subpopulations that have received non-detriment findings by CITES.
2. Number of seizures of polar bear parts in illegal trade.

What is the baseline?

2015 Trade reports – Review and Analysis of Canadian Trade in Polar Bear from 2005-2014, March 31, 2015

Report Given at the 2018 Range State MoP – (Need to Update from Caroline’s Note)

Proposed Workplan – Circumpolar Actions

#	Description	Timeline	Lead Country and Method of Implementation
T-A1	Use of agreed tagging procedures for harvested bears and bears taken in defense of life and property	In Progress and move to information sharing	
T-A2	Conduct review and analysis of Canadian trade in polar bear from 2015-2021 (including a broader market analysis)		Canada

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Objective 7: Carry out coordinated circumpolar population research and monitoring to monitor progress toward achieving the vision of the CAP

What Threat is this Linked to? All – intended to monitor and enable progress towards the vision

What level are the Threats? Low to High

How will progress toward this objective be evaluated? Not yet identified

What are the Performance Metrics? Not yet identified

Circumpolar Actions to be Considered (As noted in the text, because this was a newly created objective, the RG did not have time to review the actions below to determine which should be carried forward (as is or modified) for potential consideration in the action plan. Therefore, the RG decided to retain all circumpolar actions in the objective template now, but not to carry forward any of the information exchange actions.

Action	Description	Purpose
PRM-A1	Develop models to better understand the potential effects of climate change within the circumpolar region on polar bear subpopulations.	Helps measure progress towards the vision and inform objects 1, 2, 3, 4
PRM-A2	Share research plans among jurisdictions to encourage consistency of methods and data	Recommend moving it to Guiding Principles/Best Practices
PRM-A3	Encourage support and compile population size estimates for all 19 subpopulations of polar bears according to the inventory schedule provided in this Plan (see Appendix V)	Monitoring progress towards the vision and harvest management
PRM-A4	Encourage support and compile estimates of vital rates for all 19 subpopulations of polar bears	Monitoring progress towards the vision and harvest management
PRM-A5	Collate information on vital rates for each of the 19 subpopulations of polar bears	Combined with 29 and 30a so remove.

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PRM-A6	Investigate how climate change effects vary among subpopulations on both temporal and spatial scales, including comparative studies and cross subpopulation indices	Helping measure progress towards the vision and informing objectives 2 and 3
PRM-A7	Develop a coordinated, comprehensive research and monitoring plan at the circumpolar level	Informs and supports all other objectives
PRM-A8	Include all research and monitoring activities identified under other objectives	
PRM-A9	Consider the “actions” in the “Actions Not Circumpolar” table below when developing new coordinated plan	
PRM-A10	Re-evaluate subpopulation boundaries	To facilitate and help preserve genetic diversity
PRM-A11	Long-term population monitoring of high arctic subpopulations	Baseline data for the expected refugia populations
PRM-A12	Maintain long-term monitoring of polar bear subpopulations where data exists	Would help inform future projections of changes expected to occur over time
PRM-A13	PBSG will regularly update the status and trends table using information provided by the RS for subpopulations	A measurement of progress towards the vision
PRM-A14	Conduct a cumulative effects analysis of climate change and human activities on polar bear and their habitats;	Connecting the objectives to the vision