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# Polar Bear Conservation & Management in Canada: 2015-2017 Update



**Meeting of the Parties to the *Agreement on the Conservation of Polar Bears*  
February 2-4, 2018, Fairbanks, Alaska, U.S.A**



# Outline

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1. An overview of Canada's management system
2. Population monitoring
  - a) Scientific assessment
  - b) Traditional Knowledge
3. Harvest management
4. Human-bear conflict
5. Economic development / tourism
6. National Management Plan under SARA
7. Enforcement
8. Conclusions



# 1. Overview of Canada's management system

- In Canada, management authority for polar bears is shared by provincial, territorial, and federal governments, who are informed and advised by Indigenous leaders through constitutionally protected wildlife management boards, as well as land claims organizations

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- National coordination
- International agreements
  - Export control (CITES)
  - 1973 *Agreement on the Conservation of Polar Bears*
  - Bilateral agreements
- Species at Risk Act (SARA)
- Habitat protection (federal lands)
- Research and monitoring



- Have the primary responsibility for most management activities
  - Harvest management/setting quotas
  - Human-bear conflicts
- Habitat protection (P/T lands)
- Research and monitoring
- Wildlife Management Boards (WMBs) play a central role as decision-making bodies



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# 1. Overview of Canada's management system

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Key forums and instruments for coordination include:

- Polar Bear Administrative Committee (PBAC)
  - A subcommittee of the Canadian Wildlife Directors Committee
  - Includes representatives from government, wildlife management boards, and land claims organizations
  - Provides a forum for working together to ensure that Canada fulfills its obligations to the 1973 *Agreement on the Conservation of Polar Bears*
  - Annual face-to-face meeting, with additional teleconferences
- Polar Bear Technical Committee (PBTC)
  - Committee that provides technical advice and recommendations to PBAC on polar bear research, population assessment (using science and Traditional Knowledge), and harvest levels
  - Annual face-to-face meeting, with additional teleconferences
- User-to-user meetings
- International engagement



## 2. Population monitoring

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- As both a guiding principle and legal requirement, planning and decision making are founded upon the use of the best-available scientific information and Traditional Knowledge (TK)
- Even when there is divergence between the two, both perspectives must be considered



## 2. Scientific assessment

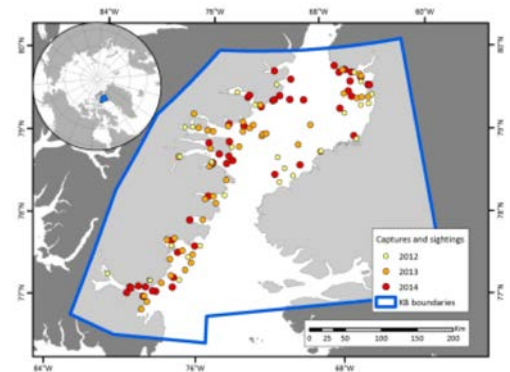
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- Long-term history of risk-based assessment:
  - >40 years of monitoring
  - CDN 1.5 M/yr invested on average over the past 20 years
  - More frequent inventories for subpopulations with known pressures
- 15-year inventory schedule to plan and track survey efforts
- A variety of methods are used
  - Less invasive methods (aerial surveys, biopsy darting)
    - Can be cost effective, allows more frequent surveys and more timely analysis;
    - Addresses concerns over drugging and handling of bears
  - Capture-mark-recapture
    - Allows abundance, survivorship, and health/condition to be assessed simultaneously
- Enforcement and trade: three-pronged approach to identify and track legal polar bear hides
  - (1) encrypted microchips (i.e., PIT tags), (2) DNA analysis, and (3) stable isotope analysis



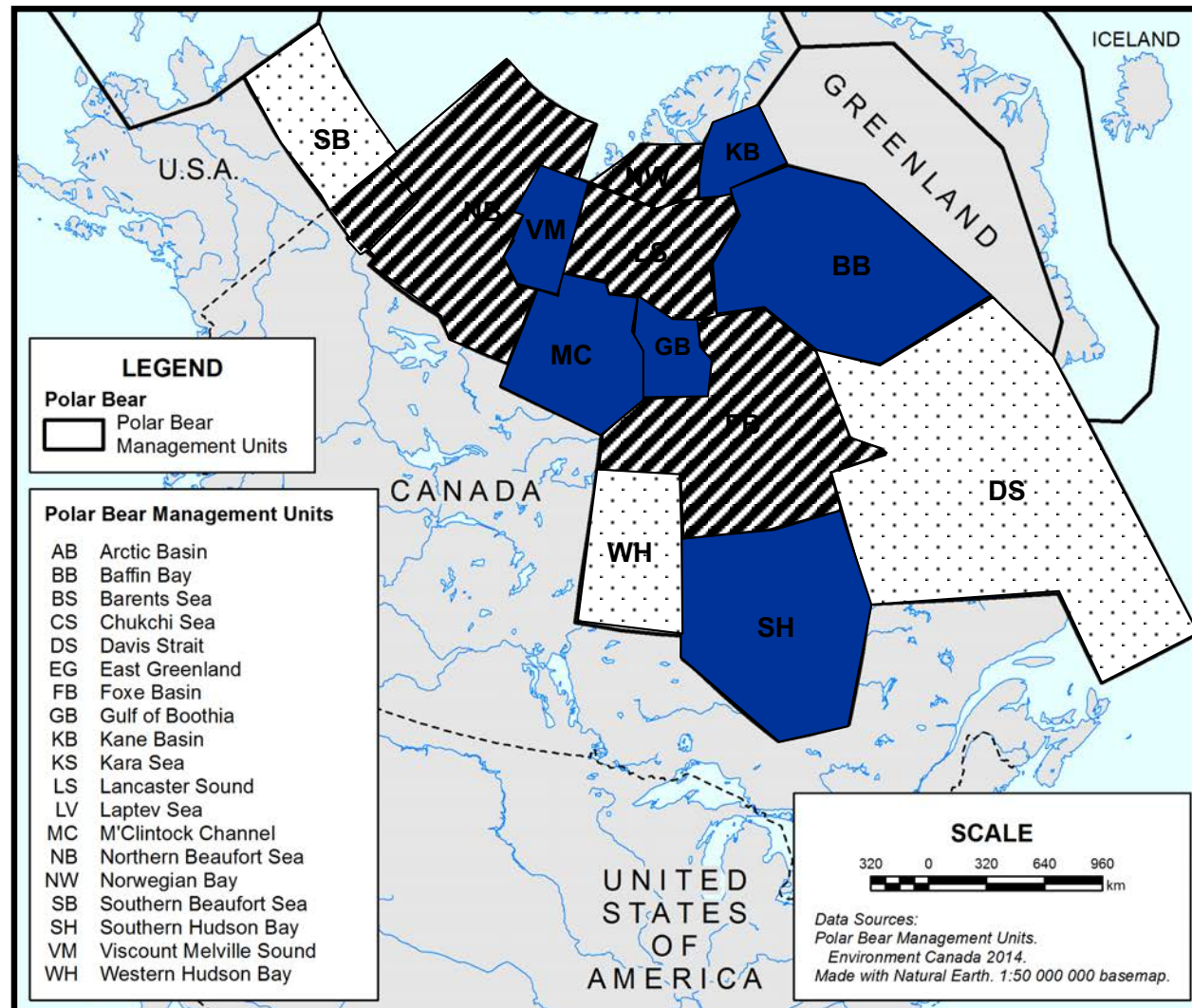
## 2. Survey planning occurs at three levels

- Provincial/Territorial
  - Monitoring requirements incorporated into regulations and management plans
  - Input from local communities, Traditional Knowledge holders, hunters and scientists to establish priorities
- National
  - PBTC (technical advice) and PBAC (management coordination)
  - National Polar Bear Conservation Strategy for Canada (2011)
  - National population inventory schedule
- International
  - Circumpolar Action Plan
  - Bilateral agreements: Canada-Nunavut-Greenland, US-Canada





## 2. National population inventory schedule



Year that an inventory was last completed



0 – 5 years ago



6–10 years ago



11–15 years ago



16 or more years ago

Year that the next inventory is planned



Ongoing (including subp's monitored annually)



Planned within the next 5 years



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## 2. Traditional Knowledge (TK)

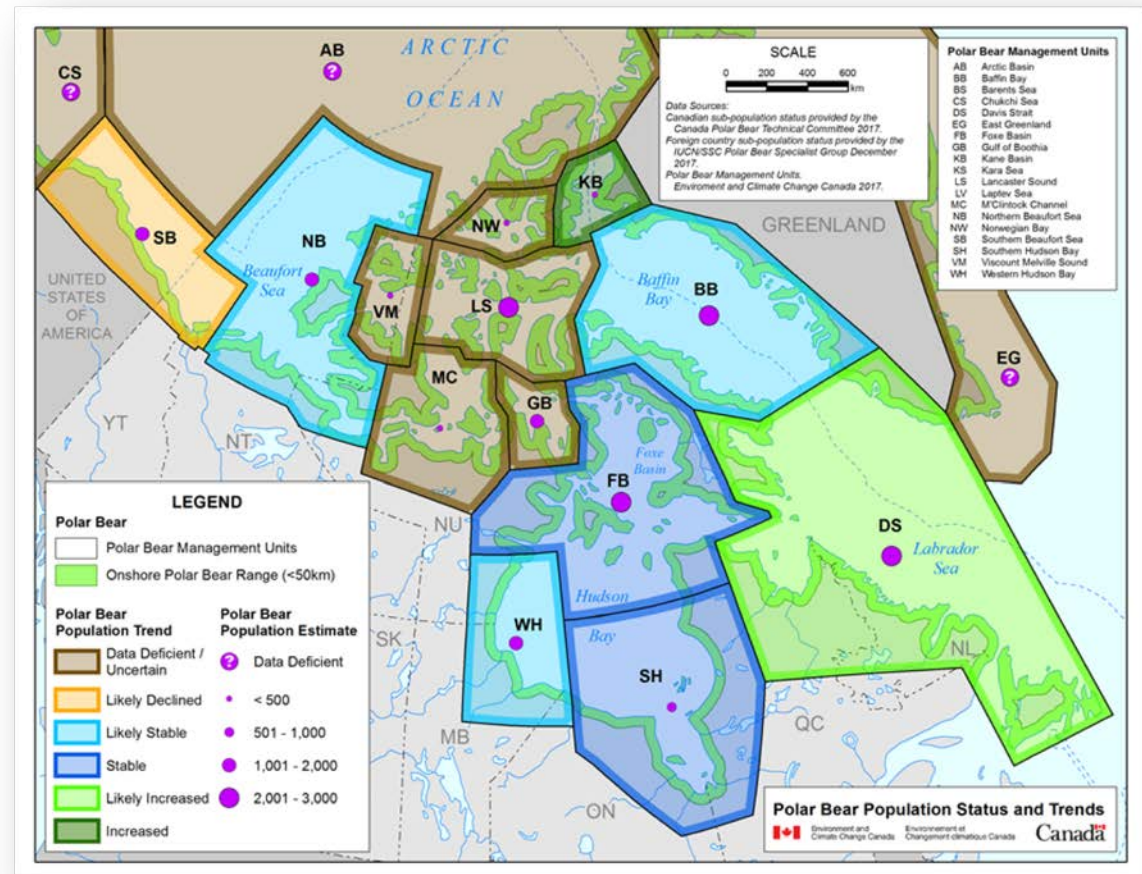
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- TK is gathered for polar bear subpopulations through scheduled assessments and other funded projects
- TK also may be gathered when management decisions impacting Indigenous people are under consideration, such as an adjustment to a Total Allowable Harvest/Take (quota) limit.
- Recently concluded and ongoing TK studies include:
  - Nunavik Inuit Knowledge of Polar Bears Project (2018)
  - Demographic and traditional knowledge perspectives on the current status of Canadian polar bear subpopulations (2016)
  - Inuvialuit and Nanuq: A Polar Bear Traditional Knowledge Study, Inuvialuit Settlement Region (2015)
  - Labrador Polar Bear Traditional Ecological Knowledge Final Report (2015)



## 2. Status of polar bear subpopulations in Canada (PBTC 2017 status table)

- **Recent trend assessment**  
(15 yrs ago to present),  
based upon science  
information:
  - 7 of 13 subpopulations are stable, likely stable, increased, or likely increased
  - 1 of 13 likely reduced
  - 5 of 13 uncertain (i.e., there is insufficient information or lack of confidence in available information to make an assessment)
- **TK assessment**
  - 13 of 13 stable or increased



## 2. Population monitoring: conclusions

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- Baseline monitoring of polar bears in Canada is extensive and coordinated at multiple levels.
- Most populations in Canada have been subject to recent inventories. Those remaining are scheduled for inventory in the near future.
- Significant investments have been made in less invasive monitoring approaches (e.g. aerial surveys or biopsy darting CMR)
- Both science information and Traditional Knowledge are considered when making management decisions



### 3. Harvest management

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- In Canada polar bears are harvested by Indigenous peoples as a key source of nutrition, cultural practice, and income.
- Quotas are set according to the status of a subpopulation using best available science and Traditional Knowledge information and are reviewed regularly
- All human-caused mortality (i.e., subsistence harvest, defense of life or property kills, non-resident hunt) is applied against quotas where quota systems are well established
- The system ensures that Indigenous communities realize full social/economic and livelihood benefits

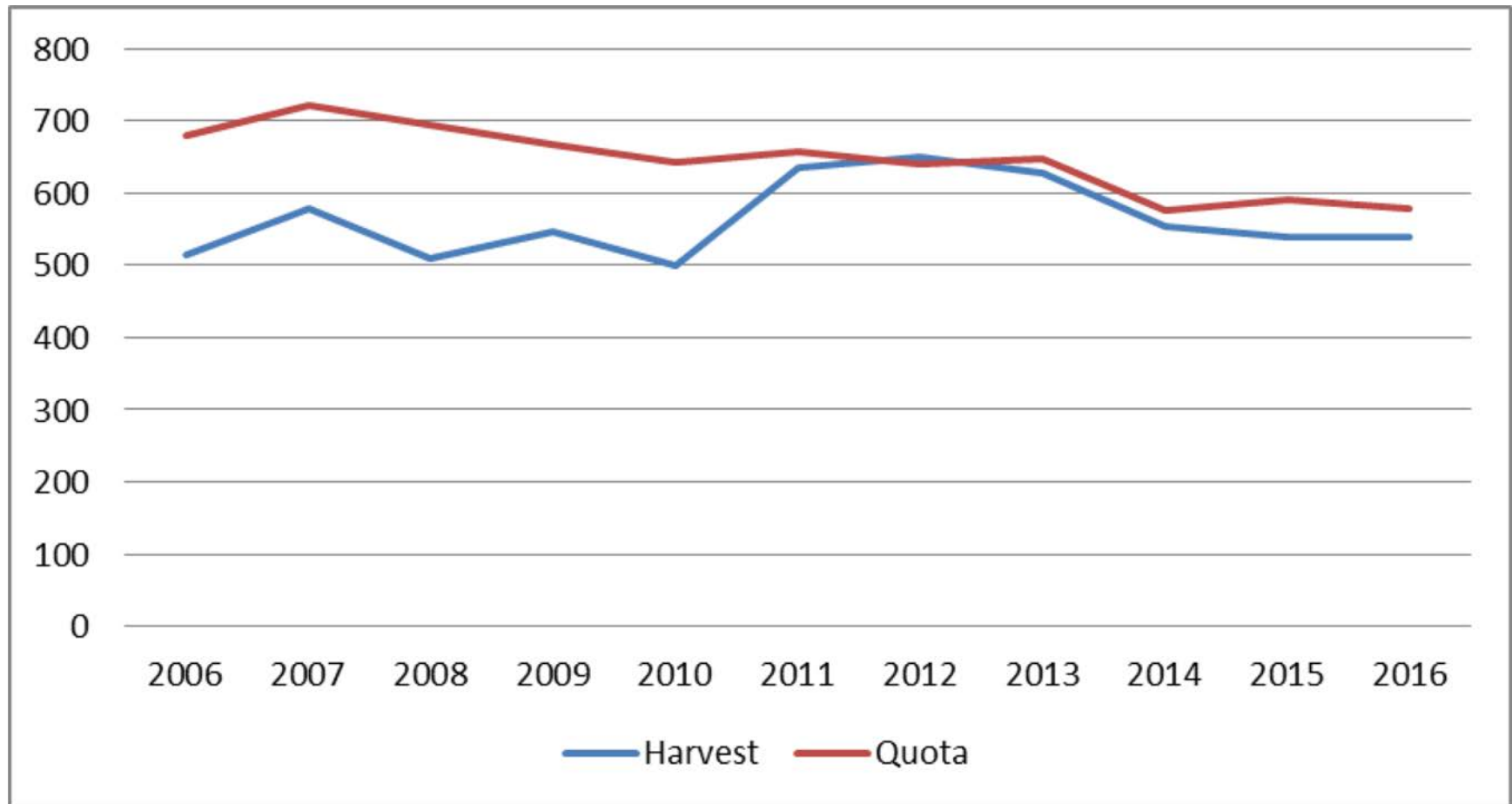


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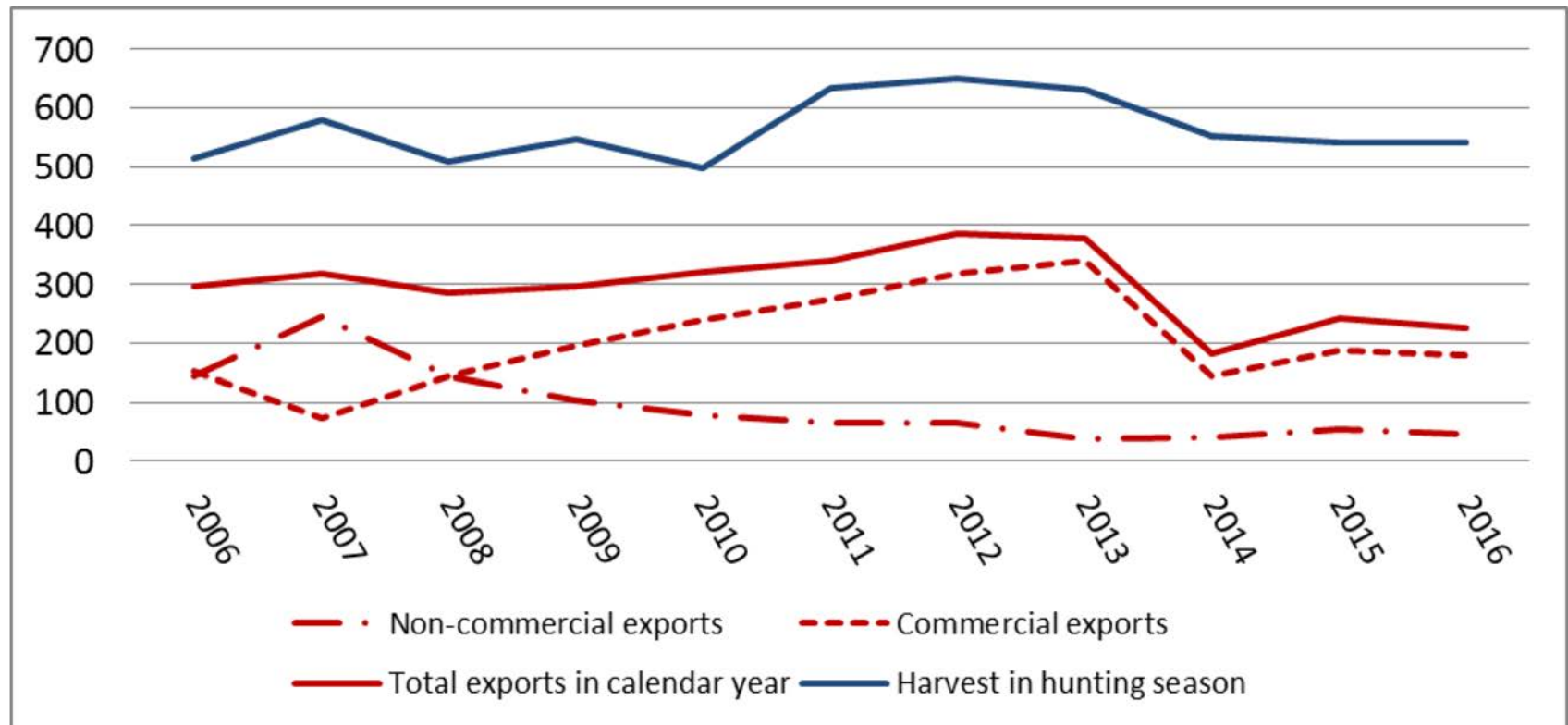
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### 3. Harvest quotas and removals



### 3. Exports per calendar year



- *Note that a bear harvested in one year (e.g., 2010-2011 hunting season) may not be exported until a later year (e.g., 2015)*





### 3. Harvest and export statistics

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	Last 3 yrs (2014 to 2016)	Previous 9 yrs (2005-2013)
Population size (N)	16,244	15,000 to 16,232
Average annual harvest (H)	544.3	567.4
Average annual export (E)	202.7	320.6
Harvest rate ( $h = H/N$ )	3.4%	3.6%
Proportion of harvested bears exported ( $e = E/H$ )	37.2%	56.5%



### 3. Important harvest management decisions (2015-2017)

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- Since 2015, the following harvest quotas have been reassessed :
  - Southern Hudson Bay
    - Nunavik Marine Region Wildlife Board and Eeyou Marine Region Wildlife Board issued a joint final decision (December 2015); the responsible Ministers (Canada, Environment and Climate Change; Nunavut, Department of Environment) varied the decision (downward) (2016)
  - Western Hudson Bay
    - Nunavut Wildlife Management Board issued a decision with application for the 2017-2018 hunting season (September 2017); the responsible Minister (Nunavut, Department of Environment) accepted the decision; (2017); a public hearing to determine an appropriate harvest level moving forward occurred in January 2018
  - Baffin Bay and Kane Basin
    - Joint Commission for Canada-Nunavut-Greenland recommended a harvest level for BB (October 2017); following consultation and review, a final recommendation will now be presented to the responsible Ministers (Canada, Environment and Climate Change; Nunavut, Department of Environment, Greenland: Ministry of Fisheries and Hunting) & domestic decision-making processes will take/are taking place. Discussions for KB are ongoing.



# 4. Human-polar bear conflict

- Increasing in some regions of Canada
- Concern for residents and bears in communities
- Manitoba: a world leader
  - Polar Bear Alert Program
- Nunavut: effective system in place. Includes partnerships with relevant orgs (e.g. WWF)
- Other deterrent programs in various stages of development



Minister of Conservation/Polar Bear Management in Manitoba



# 5. Economic development / tourism

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- Opportunities for economic development in the Canadian Arctic
  - Resource extraction (mining, oil and gas, etc.)
  - Arctic shipping
- Eco-tourism: growing interest in opportunities for the public to view polar bears in nature
  - Can be land based or marine based
  - In Manitoba - Licensing and regulation of eco-tourism operators under *The Resource Tourism Operators Act*
- Provides both opportunities and pressures



## 6. National Management Plan

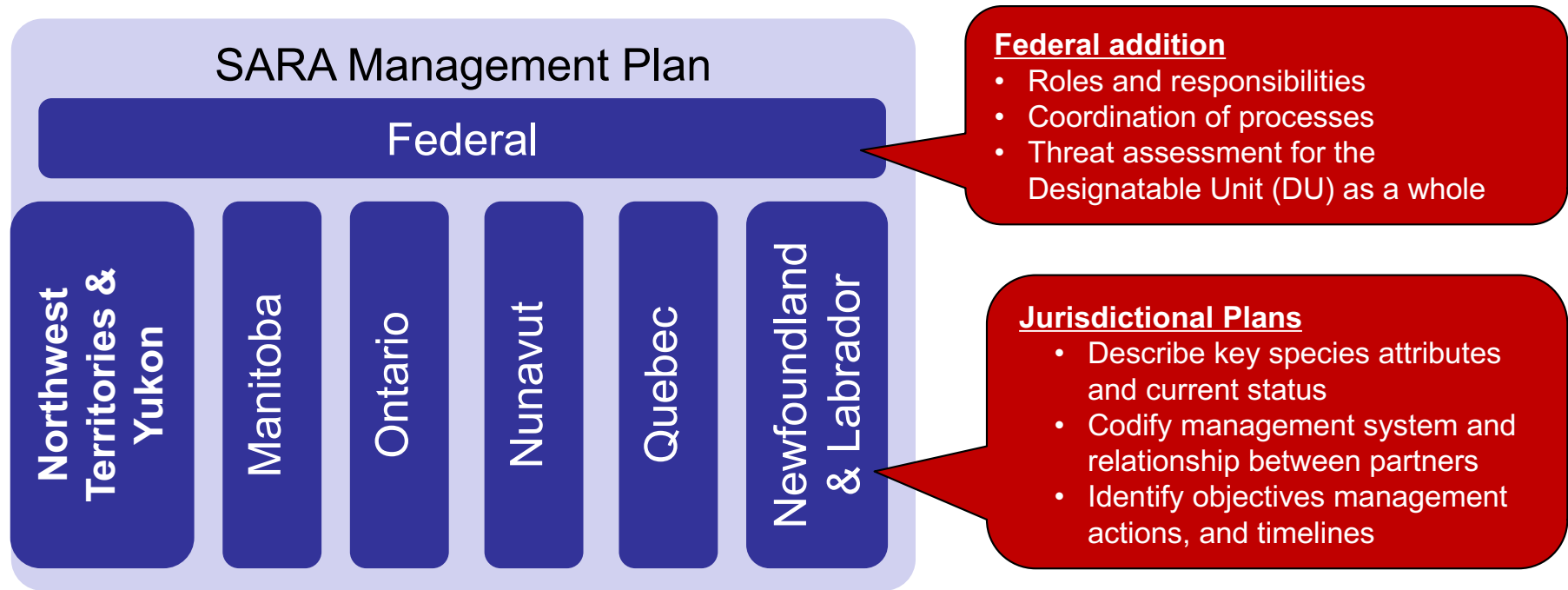
- Polar bear was listed as a species of Special Concern under the federal *Species at Risk Act* (SARA) in 2011. A Special Concern designation is used for species that may become threatened or endangered as a result of a combination of biological characteristics and identified threats
- Provinces and territories have a variety of processes and legislation for conserving species at risk

Province/Territory	Legislation	Designation	Date
Newfoundland & Labrador	<i>Endangered Species Act</i>	Vulnerable*	2002
Manitoba	<i>Endangered Species Act</i>	Threatened	2008
Ontario	<i>Endangered Species Act, 2007</i>	Threatened	2009
Québec	<i>Loi sur les Espèces Menacées ou Vulnérable</i>	Vulnérable*	2009
Northwest Territories	<i>Species At Risk (NWT) Act</i>	Special Concern	2014
Nunavut	<i>Nunavut Wildlife Act</i>	No listing	-
Yukon	<i>Yukon Wildlife Act</i>	No listing	-



## 6. National Management Plan

- Recognizing shared management authority and differences in the species status and population objectives among jurisdictions, Canada's National Polar Bear Management Plan will consist of six jurisdictional plans, plus a federal addition





# 6. National Management Plan

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- Current status
  - Two of the six jurisdictional management plans have been completed and approved by the responsible provincial and territorial ministers (Ontario, ISR)
  - The remainder, as well as the federal addition, are expected to be completed and approved in 2018
- Committee on the Status of Endangered Wildlife in Canada (COSEWIC)
  - Independent advisory panel that assess the status of wildlife species, based upon science and TK, and makes recommendations
  - Last polar bear assessment: April 2008
    - Special Concern
    - Single designatable unit for all of Canada
  - Currently undertaking its mandated re-assessment (at least once every 10 years)



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# 7. Enforcement

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- Domestic
  - Poaching and illegal trade continues to be very low in Canada
    - User engagement is key
  - Strengthening our national system
    - Continued implementation of the Three-Pronged Approach across the Canadian North
    - Centralized permitting and reporting
      - Canada is a worldwide leader in tracking harvest and trade data
      - CITES electronic permitting implemented in 2016
- International
  - Canada supports international efforts to oppose illegal take and trade of any species
    - Leadership at Interpol
    - Co-sponsorship of UNGA resolution on illegal wildlife trade



## 8. Conclusion

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- Canada's near-term focus is on solidifying its comprehensive management system
  - Territorial/provincial systems are largely in place; however some inter-jurisdictional gaps remain
  - Management Plans are in progress (Provincial/Territorial & National);
  - Up-to-date subpopulation estimates and careful management of resources remain a priority based upon cooperation and collaboration



## 8. Conclusions

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- Canada continues to place priority on conservation and management actions for polar bear
- Committed to continued investment in population inventory
- Ensuring effective and comprehensive systems are in place to:
  - Provide best information to managers;
  - Engage communities and their leaders;
  - Conduct the necessary science and Traditional Knowledge studies to inform conservation and management actions;
  - Strengthen harvest management systems, and coordination between jurisdictions, where appropriate.
- Canada continues to support a balanced approach to conservation that maintains cultural traditions, and provides opportunities for cultural, social and livelihood development in communities that live within the polar bear range.



# Thank you ᐱᐅᐅᐅᐅᐅ

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