Progress Report, Action #22

2018-2020 Bilateral and Multilateral Actions, Circumpolar Action Plan:
Conservation Strategy for the Polar Bear

Action	Reduce the risk of injury and mortality to humans and bears as a result of their interactions by: a. continuing to support the work of the Range State Conflict Working Group (CWG); b. implementing and making available to all Range States the Polar Bear-Human Information Management System (PBHIMS); c. developing and implementing appropriate data-sharing agreements among the Range States and making the data available to Range State management authorities; d. entering all available data on human-bear interactions into the PBHIMS database on an ongoing basis; and, e. developing Best Management Practices (BMPs) on tools and techniques for use in preventing and mitigating human–bear conflicts
Point(s) of contact or Lead country	Conflict Working Group Martyn Obbard & Sybille Klenzendorf martynobbard@gmail.com; Sybille.Klenzendorf@wwf.de;
Partner Countries	
Timeline Description as per 2018-2020 implementation table	Carried over from 2015-2017; task expected to be completed in 2018- 2020 2-yr cycle
Baseline status	Terms of Reference (ToR), data sharing agreement and requirements document not completed. PBHIMS not fully populated.
Planned Outputs	To have completed ToR, data-sharing agreement and a requirements document. Continued population of the PBHIMS and publication of peer-reviewed papers.
Modifications made to date	The title and description of this action were modified to better match the exact language from the CAP document "2 YearImplementationTable_FINAL.pdf".
Progress Report Date	September 30, 2019

Progress Report on Activity
a. continuing to support the work of the Range States CWG.

Description: Providing the human and financial resources necessary for the CWG to complete assigned tasks. Ideally, a financial mechanism will be established to support working group activities including priority research, pilot projects, face-to-face meetings, and data management.

No financial mechanism has been established, although the Range States Operations, Policies, and Procedures (OPP) Working Group (WG) is working with the Range States Heads of Delegation (HoD) to address this point. A decision is expected prior to the 2018 Range States Biennial Meeting of the Parties (MoP).

Support was provided by the Range States for a face-to-face meeting of the CWG in March 2015 in Copenhagen.

In 2017 the U.S. Fish and Wildlife Service determined that it could no longer provide the sole financial support for providing technical support for the PBHIMS database. The CWG has discussed other options to pursue, but no solutions have been developed. The SMART database used by World Wildlife Fund (WWF) for other species may provide a proven solution that could be modified to accommodate polar bears.

No financial mechanism has been established to support the work of the CWG (Conflict Working Group). The current activities are supported by staff time of range states employees and outside members such as WWF, the University of Utah, University of Washington, etc. There is no dedicated financial support for pilot projects or meetings. WWF has supported the pilot development of PBHIMS-SMART as the succession for PBHIMS by paying for staff time to tailor the software to PBHIMS, training of range state staff, and technical support. The government of Norway paid for an initial training week for SMART in Tromso in October 2018.

Currently, CWG is planning a face-to-face meeting of the CWG before the next range states meeting, but attendance of several members (such as the chair) is in question due to lack of travel funds to attend.

b. implementing and making available to all Range States the PBHIMS database;

The CWG has created a PBHIMS ACCESS database, which is currently available to all Range States for use. A ToR and requirements document were completed.

The CWG identified the following requirements for the database to be rolled out more effectively in the range states in 2017:

- Development of an access – restricted database
- Automated, standardized reporting
- Easier record submission (e.g. web, smartphones, etc.)
- Enhancement of spatial data processing functionality
- Multi-language capabilities, specifically a Russian version
- Expansion of PBHIMS user groups

The Range States agreed at their meeting MoP in January 2018 to move forward with an alternative database platform called SMART (Spatial Monitoring And Reporting Tool) from the original ACCESS database to meet the above requirements. SMART, which was developed initially to aide conservation managers in understanding wildlife population trends and threats including poaching and human -wildlife conflict (http://smartconservationtools.org/), is currently being implemented in ~600 sites across the globe for effective conservation management. The USFWS International Program is one of the financial supporters of SMART and co-finances implementation mainly in Africa and Asia.

c. developing and implementing appropriate data-sharing agreements among the Range States and making the data available to Range State management authorities;

Description*: Determine goal of agreement, approval by CWG, Approval by HoD, National consultations*

Finished, with caveat: The CWG has developed a draft data-sharing agreement. However, the CWG does not think a true data sharing agreement is practical at the International level. Rather, data sharing agreements will be developed between interested parties on a project and analysis specific basis. The draft data-sharing agreement developed by the CWG can provide a template for that along with data sharing within jurisdictions.

In 2018, the CWG agreed on a minimum number of variables that are needed for an incident report and BMP practices analysis. These data are critical to deliver on a conflict status report to the CAP annually.

d. entering all available data on human-bear interactions into the PBHIMS database on an ongoing basis; and

Description: *Historic conflict records are entered, and a plan is in place to update PBHIMS annually with data from each Range State*

Unfortunately, implementation of SMART-PBHIMS has been slower than anticipated due to limited amount of staff time, staffing changes, and delayed software upgrade. The software upgrade was finished in June 2019.

SMART database design and adaptation to individual range state requirements is finished for Norway (Conbear), Greenland, and Nunavut. In addition, we have designed a database for Wrangell Island (Russia) and Chukotka (via WWF).

Status of PBHIMS data entry per country:

US: The USFWS has continued data entry of PBHIMS data in the ACCESS database. USFWS has not been able to commit to SMART implementation because IT staff still need to test compatibility with the USFWS server and security requirements.

 Greenland: Data entry is complete in ACCESS. Data transfer to SMART not complete but planned in the next 3 months.

Norway: PBHIMS data is entered through 2010 in the ACCESS database, 11 additional incidences are not entered for data until Aug 2016. No additional information is available from August 2016. PBHIMS data transfer is complete up to 2013 data into the SMART database, but SMART mobile data collection is not yet implemented in the field yet.

Russia: No data for PBHIMS provided.

Canada: Canada's efforts have focused on the implementation of process to obtain human-bear conflict data from sub-national jurisdictions in accordance with minimum variables recommendations that were agreed upon by the CWG in 2018. Canada has committed to reporting summarized information to fulfill its requirements under the CAP, but has not been able to commit to SMART implementation on a national level.

PBHIMS data has been entered in Manitoba into the ACCESS database for data up to 2013. Staffing limitations have prevented full entry to date.

Nunavut has finished draft design of the SMART mobile data collection tool to test in field.

e. developing BMPs on tools and techniques for use in preventing and mitigating human–bear conflicts

Description: Produce a best practices detection, deterrence, and conflict prevention manual using material from around the Arctic such as the Parks Canada/Government of Nunavut and U.S. deterrence manuals that were already produced. Include recommended suite of data to be collected whenever bears are killed in conflict (e.g. age, sex, body condition, and probable cause of the attack). Continue to update as new material becomes available.

Rather than produce a manual, the Range States will share BMPs, manuals and other materials on the Range States website to inform management of conflicts Arctic-wide. Still need to review materials from the 2014 Wildlife-Human Attack Response Training (WHART) workshop held in Whitehorse to help identify data to collect when bears are killed during conflicts.

Ongoing. See response to action #7 for a list of publications.

In April 2019, a WHART workshop was held in Anchorage and has updated information for broader use. The Alaska Department of Fish & Game is finalizing a grizzly and black bear attack response manual that will also inform responses to polar bear attacks.

Next Steps

A. SMART Implementation Plan (needs financial support):

Objective 1: By 2020, SMART is tested with at least 3 model applications (population survey, polar bear patrol, citizen science observations) and designated SMART trainers can conduct SMART workshops for stakeholders and provide basic technical advice.

Activity 1.1: Training of range staff in SMART application and IT officer in each range state.
Activity 1.2: SMART Connect Site Setup and SMART mobile collection interface design for field testing.
Activity 1.3.: Field testing of data collection
Activity 1.4: Refinement of SMART data collection interfaces after field testing (Winter 2020)
Activity 1.6: PBHIMS data transfer into SMART (SPRING 2020)
Activity1.7: Continued field data collection and quarterly data analysis

Objective 2: By 2021, interested stakeholders can use and administer SMART effectively to meet their conservation/management needs, including data collection, citizen engagement in polar bear conservation, data management, querying data, and developing standardized reports.

Activity 2.1: Regional workshop to familiarize interested stakeholders (e.g. industry, communities) with SMART
- a two-day regional SMART orientation workshop to familiarize interested stakeholders on SMART. The workshop will include the following topics:

- o SMART as a possible wildlife – conflict, harvest, and scientific monitoring tool;
- o How to use and adapt SMART software for effective conservation management and adapt it to the needs of the stakeholders.
- o Possible Uses of SMART mobile data collection

B. BMP – related activities (needs financial support)

Title: Develop and initiate an applied research program

Description: Reconstruct and modernize the Churchill deterrents research program (Stenhouse et al.). In partnership with Manitoba Conservation and other interested parties, create and fund a research program to quantitatively examine current and potential tools in polar bear deterrence and conflict mitigation. Examples of tools that could benefit from additional applied research include: air horns, 'cone of sound' (LRAD), "advance warning detection systems", bear spray effectiveness under different conditions, paintball guns, and the use of Tasers. Other examples include testing synthesized bear "growls" such as those used in the original Churchill test in the 1980s. These could be broadcast from a vehicle such as from a patrol vehicle with a PA system. A pepperball gun has been used by oilfield security officers on polar bears in Alaska, but needs further testing. Polar bear-resistant food storage should also be a further topic to explore.

CWG will provide regular review and recommendation of additional human-bear research that is needed.

Countries: All Range States

Lead: Tbd

Timeline: 2020-2022

Outputs: Scientific/management papers on deterrent efficacy that will directly inform BMP's.

Considerations Going Forward:

This Action stands at the core of the CWG to provide measurable impact to conservation by evaluating BMPs supported by field data. It should be kept as is and supported with a budget.