Proceedings - Stakeholders Consultation Meeting on Bears Conservation in Myanmar
The meeting was organized in the framework of the Sun Bear Conservation Project, which aims at promoting the protection of Sun Bear and its habitat in Myanmar. The initiative, promoted by Istituto Oikos in partnership with Wildlife Conservation Society (WCS), Rakhine Coastal Region Conservation Association (RCA) and the Ministry of Natural Resources and Environmental Conservation (MONREC), is funded by Fondation Segré.

Cover photo credit: Ralph Bürglin

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Introduction
The "Stakeholders Consultation Meeting on Bears Conservation in Myanmar", organized for the first time in Nay Pyi Taw on 13th March 2018, was a public event for the promotion of bears conservation in Myanmar. The meeting provided the opportunity to share data and experiences among local and international experts, governmental institutions and general stakeholders. Final goal of the event was to assess threats and opportunities to bears long term conservation in Myanmar.
Several NGOs, Institutions and government representatives brought their contribution to the meeting and actively participated to the open discussions. Thanks to the full participation of key national institutions and stakeholders, foundations for drafting a specific management plan and boost a wider stakeholder collaboration for bears conservation were laid.
Meeting Agenda

09:00-09:30 Opening session

- 09:00-9:20 Forest Department Opening Speech
  [Dr. Nyi Nyi Kyaw - Forest Dept. (Director General)]

- 09:20-9:30 Stakeholders Consultation Meeting on Bears Conservation and Sun Bear Project
  [Leonardo Gueli, - Istituto Oikos (Country Representative)]

09:30-09:45 Coffee break and photo section

9:45-09:50 Presentation of the program of the meeting
[Filippo Zibordi, Istituto Oikos]

9:50-10:00 Introduction to the importance of biodiversity conservation in Myanmar
[Dr. Mg Mg Kyi - Rakhine Coastal Region Conservation Association (Chairman)]

10:00-10:10 IUCN Bear Specialist Group: general introduction on Sun Bear, Helarctos malayanus and its threats in SEA.
[U Saw Htun - WCS]

10:10-10:30 Seizure of Bear crimes and improving protection in Myanmar
[U Win Naing Taw - Nature and Wildlife Conservation Division (Director)]

10:30-10:45 Bears distribution in Myanmar
[U Hla Naing - WCS]

10:45-11:00 Forest habitat loss: what is happening in Myanmar?
[Grant Connette - Smithsonian Institute]

11:00-12:00 Projects and initiatives in Myanmar / SEA – experiences of NGOs

- 11:00-12:00 monitoring Sun Bear and Asiatic Black Bear
  [U Win Lin Aung - Oikos & U Zarni Aung - WCS, Brian Crudge - Free The Bears, Aung Lin - FFI]

12:00-13:00 LUNCH BREAK

13:00-14:00 Continuation of the morning

- 13:00-13:40 Illegal trade of bears and bear farms in Myanmar and in SE Asia
  [U Tin Htun Aung - Banca, Htun Oo - Friends Of Wildlife]

- 13:40-14:00 Bears captive centers: contribution to research and conservation
14:00-14:40 Education, awareness campaigns and community engagement for bears conservation in Myanmar

14:40-16:50 Round table: What is needed for bears conservation in Myanmar?
Conclusions of the day and schedule for the next steps

Participants
A total of 60 participants from local NGOs, International NGOs, Universities, Zoos, Governmental representatives and media took part to the event.

Opening session
After the official welcoming, Forest Department Director General, Dr Nyi Nyi Kyaw, announced the urgent need of discussions to find solution to mitigate threats to bears survival. The DG highlighted the importance of Myanmar natural ecosystems and confirmed the commitment of the government in preventing habitat losses and tackling wildlife trade by establishing Protected Areas and collaborating with NGOs for the protection of Myanmar natural heritage. All the participants were strongly encouraged to participate to the discussion with the overall goal of identifying key actions to be included in management plans aimed at the conservation of rare and endangered wildlife species such as bears.

Leonardo Gueli, Country Representative at Istituto Oikos, underlined the importance of the meeting in the framework of the Istituto Oikos' Sun Bear Project. Bears were chosen by the organization as flagship species for the protection of the forest ecosystem. Thanks to the actions which will be taken to improve Sun Bear conservation, other endangered species such as Asiatic Black Bears, Elephants, Pangolins, cats species, etc. will likely improve their conservation status. The opening session concluded with a strong encouragement by the organization's Country Representative to take advantage of the unique opportunity of having reunite environmental experts and governmental authorities for a productive and successful debate.

After the coffee break and the presentation of the meeting programme, Dr. Mg Mg Kyi, Chairman of RCA (Rakhine Coastal Region Conservation Association) gave a speech on the importance of the community engagement in the conservation process. Some successful examples of community based projects were cited from Rakhine State as the community fisheries network that has been established along the coastal area near Gwa, Rakhine State.
Presentations

1 - IUCN Bear Specialist Group: general introduction on Sun Bear, Helarctos malayanus and its threats in SEA.
[U Saw Htun - WCS]

Sun Bear's conservation status was assessed for the first time in 1990 by the IUCN. At that time data were insufficient to define its category and the species was classified as "Data Deficient". Successive assessments in 2008 and 2017 enabled the classification of the bear under the category "Vulnerable", mainly due to the past and projected habitat loss. Past and present distribution maps show a clear reduction of the bear’s habitat in mainland and insular SE Asia. Biggest loss in terms of habitat and population occurred in Thailand and Laos in the past years. According to the potential distribution models, Indonesia and Myanmar comprise today the majority of Sun Bear’s distribution range. The experts of the IUCN Bears Specialist Group state commercial hunting, habitat fragmentation and small population size are the main threats in most range countries. In addition, habitat loss is seen as the main threat in Indonesia, Myanmar and Malaysia. Habitat loss and degradation is mainly caused by logging and expansion of plantations into the natural habitat. The projections indicate the Sun Bear will likely reduce its population size by more than 30% in the present and next 30 years in all range countries if no conservation action will be implemented. In Myanmar is expected a decline of the bear population up to 50%.

2 - Seizure of Bear crimes and improving protection in Myanmar
[U Win Naing Taw - Nature and Wildlife Conservation Division (Director)]

The first NWCD’s conservation programme focused on bears was started in 2016 with Istituto Oikos’ Sun Bear project. The projects aligns with the Myanmar’s "National Biodiversity Strategy and Action Plan 2015-2020", which, in conformity with the Aichi Targets, foresees the prevention of species extinction and the improvement of the conservation status of threatened species. The legal tools for the protection of nature in Myanmar are "The Protection of Wildlife and Protected Areas Law (1994)" and "The Protection of Wildlife and Protected Areas Rule (2002)", currently under review. Focal species are listed under three category: 1) completely protected wildlife (98), normally protected wildlife (61), seasonally protected wildlife (15).
Since 2010, 9 bears or body parts were seized by NWCD: 6 from the Shan State and 1 from Rakhine State, Mandalay and Yangon.
The ongoing Sun Bear Project is expected to improve the capacity of government authorities and local communities to contrast poaching, and manage sustainably the forest environment for the conservation of bears and other wildlife species. Knowledge on bears distribution and ecology acquired thanks to the research component of the project will ensure a better resource use planning.
Next steps to improve bears conservation in Myanmar are the preparation of reliable species distribution maps, a better understanding of bear ecology in the country, the establishment of a wildlife rescue centre and the improvement of law enforcement against bear illegal trade.
3 - Bears distribution in Myanmar

[U Hla Naing - WCS]

Two bear species are present in Myanmar: Asiatic Black Bear (*Ursus thibetanus*) and Malayan Sun Bear (*Helarctos malayanus*); both are classified as "Vulnerable" by the IUCN specialists. Black bears occupy a narrow band from southeastern Iran eastward through Afghanistan and Pakistan, across the foothills of the Himalayas in India, to Myanmar. With the exception of Malaysia, black bears occur in all countries in mainland Southeast Asia. Sun bears are found in the tropical rainforest of Southeast Asia ranging northeastern India, Bangladesh, Myanmar, Thailand, Peninsular Malaysia, Laos, Cambodia, Vietnam, and on the islands of Sumatra and Borneo in Indonesia. They now occur very patchily through much of their former range, and have been extirpated from many areas, especially in mainland Southeast Asia.

Several camera trapping studies have been carried out in Myanmar in order to assess the presence of tigers and cats between 1999 and 2002. During the surveys, data on bears were collected as well. Sun Bear presence was detected in Hukaung Valley WS, Htamanthi WS, Alaungdaw Kathapa NP, North Rakhine, Rakhine Yoma Elephant Range WS, Bago Yoma, Paunglaung Catchment Area, Tanintharyi region; Asiatic Black Bear was found in Alaungdaw Kathapa NP, Htamanthi WS, Paunglaung Catchment Area and Tanintharyi region. Asiatic Black Bear was also identified in southern Rakhine during the ongoing Sun Bear Project.

Bears distribution monitoring will continue in order to collect presence and abundance data. Such information will be used to develop Species Conservation Action Plan and promote conservation in Myanmar though the collaboration between organizations and all the stockholders.

4 - Forest habitat loss: what is happening in Myanmar?

[Grant Connette - Smithsonian Institute]

Remote sensing is a powerful tool to investigate land cover changes as deforestation and environmental degradation. Satellite images show Myanmar has the 3rd highest deforestation rate by area (FAO, 2015). Between 2002 and 2014, 3.6% of forest loss and 11.3% of intact forest loss occurred in all the main forested areas of the country.

In deep studies from Tanintharyi show an intense deforestation at the border of the proposed Lenya NP, causing habitat loss for several endangered species living in the region. Collaborative studies between Smithsonian Institute, Fauna and Flora Int., Wildlife Conservation Society, Friends of Wildlife and Karen Wildlife Conservation Initiative brought to the preparation of potential distribution maps for focal species of Tanintharyi such as Malayan Tapir and Banteng by combining camera trap data with landscape attributes maps. The analysis shows the presence of intact forest is the most important variable describing the species distribution models, especially for Sun Bear.

In terms of habitat loss, land cover changes due to human encroachment into natural areas and road construction play a significant role. Further studies will contribute to understand ecological relation between habitat and wildlife and will inform people on the best solution for the coexistence between human and nature.
5 - Monitoring Sun Bear (*Helarctos malayanus*) presence and distribution in two Myanmar regions
[U Win Lin Aung - Oikos + U Zarni Aung - WCS]

Istituto Oikos’ Sun Bear Project in collaboration with WCS, RCA and NWCD, is the first initiative aimed at monitoring bear species in Myanmar. The study is focused in Htamanthi WS, and in southern Rakhine, at the border and inside the Rakhine Yoma Elephant Range WR (RYER). The research protocol is based on camera trap and transect surveys, to be carried out between 2016 and 2019 in three separated session (year1, year2, year3). 240 camera traps are deployed during every monitoring session, covering a total area of 480 km². Objective of the research is to understand the population consistency in the study areas, prepare distribution maps and collect information on the ecology and biology of Sun Bear in order to draft a strategy action plan for the conservation of bears. During the first year of camera trap survey more than 65 videos of Sun Bear were recorded, showing evidences of reproductive populations in Sagaing and in Rakhine. Sun Bear presence was detected in all the monitoring sites (4 in Rakhine and 4 in Sagaing). Asiatic black bears were recorded as well, although with much lower frequency. The information collected thanks to the ongoing research will enable a population trend monitoring of bears and all the wildlife species captured on video. Further studies will identify priority areas for the conservation of bears.

6 - Monitoring Sun Bear and Asiatic Black Bear in SE Asia
[Brian Crudge - Free The Bears]

Monitoring wildlife population like bears is essential in order to identify priority areas for conservation and assess the effectiveness of conservation actions. Most common monitoring techniques include camera trap survey, genetic captures, interviews and sign surveys. In 2015 to 2016 Free the Bears, in collaboration with Animals Asia and Vinh University, conducted an interview survey in order to investigate the distribution of bears in Vietnam. Main objective of the project was to measure impact of bear bile farming on wild populations and to identify priority sites and recommendations for conservation interventions. An initial assessment was carried out to investigate the capacity of the interviewees in discriminating the two bear species and villages land use maps were drafted. The survey protocol was based on questions on the supposed local abundance of bears species. 1441 interviews in 22 protected areas were collected. Interviewing local villagers appears an efficient and reliable mean of assessing distribution of certain species. When management and conservation of a species is hindered by lack of data, timely and rigorously collected interview data can provide valuable evidence on which to base conservation interventions.

7 - Bears records in Proposed Imawbum National Park, Indawgyi Biosphere Reserve, Man Reserved Forest & Proposed Lenya National Park
[Aung Lin - FFI]
By catch captures in camera trapping could provide useful information for a wide range of mammals groups. During FFI's biological surveys in Proposed Imawbum National Park (Imawbum, Htawlan, Mawchaung, Chiynban, 2011-2017), Indawgyi Biosphere Reserve (2015-2017) and Man Reserve Forest (Pauksa Mountain, Natyekan ridge, 2013-2014), 11 camera traps recorded Asiatic Black Bear and 2 cameras captured Sun Bear. The latter was found only in Man Reserve Forest, while Asiatic Black Bear was identified in all the study sites. To know the species distribution is essential in order to take effective actions for their conservation. A better understanding of bear presence in Myanmar will increase the capacity of the authority in tackling poaching and illegal wildlife trade.

8 - Illegal trade of bears and bear farms in Myanmar and in SE Asia: Report on Survey of Bears Trade and Bears Farming in Eastern Shan State
[U Tin Htun Aung - Banca]

Trade in Asiatic Black Bear products occurs throughout Myanmar, particularly in cross-border areas. Several factors, including weak law enforcement, the poverty of local people in involved areas, and strong market demands, contribute to the widespread of this illicit business. According to a previous regional study, there were three bear farms housing 58 Asiatic Black Bears documented in Panghsang and Mongla cities in eastern Myanmar (Foley et al, 2011). To better understand the bear trade and bear farms in these areas, field visits were carried out around these cities and at border areas of China and Lao PDR. Between February and March 2016 a total of five sites were surveyed: Muse and Ruili, Mongla, Panghsang, Tachileik and Kyeik Htee Yoe. Shops selling bear products were found in all the study sites, especially in Mongla and Kyeik Htee Yoe, although some products are believed to be fake. Bear farms were documented in the areas around Panghsang and Mongla. It is likely Yangon and Mandalay are main hubs for the illegal wildlife traffic routes, while China seems to be the main destination of wildlife parts collected in Myanmar.

9 - Bear trade survey in Myanmar
[Htun Oo - Friends Of Wildlife]

Questionnaire's survey and market visits were carried out by Friends of Wildlife in 12 study sites in Myanmar in order to collect data on the illegal bear trade and provide information to relevant enforcement agencies and support them to contrast bear poaching. The interviews revealed most of hunters are farmers and merchants, while only 18% consider themselves as professional poachers. Snares are the most common poaching method (75%), followed by guns (23%). The majority of local hunters poach bears to consume meat and sell valuable parts (gall bladder and paws). During the survey live bears were found in Taungote (Rakhine) and (Chinchaung village) Mahamying. Prices of bear body parts were investigated, gall bladder's value varies depending on the color and size. An assessment of live bears in captivity was carried out in the zoos and wildlife parks and a register of the animals hosted in the facilities was compiled.
It is recommended to repeat surveys in Pyie and Mandalay, main transits of bear bile directed to China; also a detailed investigation in Shan State is necessary, especially at the border zones where most of bear products are traded. The information collected thanks to the presented study support NWCD and FD in taking action against the illegal wildlife trade.

10 - Bears captive centers: contribution to research and conservation
[Brian Crudge - Free the bears]

Mission of Free The Bears is to protect, preserve and enrich the lives of bears throughout the world. The organization established the first bear rescue centre in Phnom Tamao, Cambodia, in 1998 and more than 200 bears were rescued to 2018. Other rescue centers are in Vietnam (Cat Tien Bear Sanctuary) and Laos (Tat Kuang Si Bear Rescue Centre & Luang Prabang Wildlife Sanctuary). To all the rescued bears long life cares are ensured. The centers offer the opportunity to conduct ex-situ research on the biology of bears, and to test monitoring methodologies for wild populations. Education is a key activity for the organization, the rescue centers host interactive lessons, games and activities about wildlife, the environment, conservation and sustainability for international and local students. Awareness campaigns on bear conservation are often carried out in order to educate local communities about the illegal wildlife trade. Among the greatest achievements of FTB, over 200 rescues in Cambodia, 40 bears were rescued in Vietnam and 50 in Laos. Evidences show the demand for bear bile is decreasing in Vietnam.

11 - Education, awareness campaigns and community engagement for bears conservation in Myanmar: Expediting an End to Bear Farms in Vietnam
[Ms. Dung Nguyen - Education for Nature Vietnam]

It is estimated in 2017 900 bears remained in captivity in bear farms in Vietnam despite the demand for bear bile has decreased by 61% from 2009 to 2014 and 20 provinces in Vietnam have declared themselves “Bear free provinces”. ENV's work to stop bear farming is carried on three frontlines: policy improvement, reducing demand and law enforcement. Community engagement is essential to gather information on bear farms and inform the authorities. An hotline number was established to report wildlife crimes, in 2017 154 bear related crimes were reported to ENV. Several awareness campaigns with the participation of influential personalities and celebrities were launched in order to educate the public not to consume bear bile. 210,000 Vietnamese citizens have pledged not to use bear bile, including 10 ministries and 81 government agencies. The message was broadcasted by TV channels, radios and web social networks. The “Vietnam Bear Week" occurred in December 2017, the event was celebrated with a public marathon "Run For Bears", school events and exhibitions in 13 provinces. The public was encouraged to change their Facebook's profile picture with an avatar which express love for bears. 153 media coverages reported the "Bear Week".
Number of captive bears in Vietnam decreased from about 4500 in 2005, to about 900 in 2017. ENV's goal is to extinguish definitely this business.
In the context of Istituto Oikos' wildlife conservation programme, community engagement plays an essential role. The Sun Bear Project's area in Rakhine is constituted by a mixture of forest land, protected areas and rural villages. Direct and indirect poaching constitutes a threat to Sun Bear and other wildlife species; snaring is a common activity and bear cubs are sometimes raised in the houses to be sold to middlemen. Additionally, the habitat degradation and the human encroachment into natural areas are causing men and bears to compete for space, thus creating species conflicts.

In order to mitigate the impact of the local community on Sun Bear survival, a wide range of actions was taken: 1) research on human bear conflict and bear trade survey; 2) Community forestry to protect bear habitat and prevent further environmental degradation; 3) Education and awareness campaigns in the schools and in the villages. After introductive lessons, performed with a participatory approach, students were encouraged to express themselves with drawings and role playing during dedicated events. 4) Community Guardian Groups were established to actively protect the natural heritage against professional poachers and support FD and NWCD in their work by providing information. The project is showing positive results in enhancing the ecological value of bears to the eyes of the local communities. People are understanding the meaning of wildlife conservation and are keen to participate to the proposed activities.
Round table: What is needed for bears conservation in Myanmar?

Participants: Filippo Zibordi - moderator (Oikos), Win Naing Taw (Forest Department's Nature & Wildlife Conservation Division - NWCD), Maung Maung Kyi (Rakhine Coastal Region Conservation Association - RCA), Lorenzo Gaffi (Oikos), Hla Naing (Wildlife Conservation Society - WCS), Grant Connette (Smithsonian Institute), Brian Crudge (Free The Bears – FTB), Tin Htun Aung (Banca - Biodiversity and Nature Conservation Association), Tun Oo (Friends of Wildlife – FOW), Ms. Dung Nguyen (ENV - Education for Nature Vietnam).

The discussion was focused on the following topics:
- legal framework for bears conservation: should it be updated/upgraded or not?
- law enforcement: how can it be ameliorated?
- importance of knowledge of bears distribution for their conservation
- importance of scientific research for bears conservation
- need to share data and survey design for bears conservation
- pros and cons of realizing a bear captive centre in Myanmar
- opinions and suggestions for dealing with negative attitude of village people towards bears
- best practices for bears conservation coming from other South East Asian countries
- awareness campaigns and education: key elements and effectiveness
- protected areas: importance for bear conservation
- future of bears in Myanmar and possible conservation measures.
Finally, participants were asked to “List the first 3 activities that should be realized by tomorrow for improving bears conservation in Myanmar” below are the answers.

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<th>NWCD</th>
<th>OIKOS</th>
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<td>2. Awareness raising (politicians &amp; general public) on importance conservation</td>
<td>2. Education (local &amp; national)</td>
<td>2. Law enforcement</td>
<td>2. Law enforcement</td>
<td>2. Special planning to protect habitat</td>
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**Conclusions of the day**

[Filippo Zibordi - Oikos]

The presence of government representatives, of several NGOs and INGOs and the active participation of various other national institutions at a meeting fully dedicated to bears, is a first big step towards the conservation of the two species of *Ursidae* of Myanmar.

The problems listed and discussed during the meeting are many and not easy to solve, but the only way for saving Sun Bear and Asiatic Black Bear from future extinction passes through sharing knowledge, data and best practices between all the stakeholders involved. In this framework, the meeting has permitted to outline each actors’ tasks and the future drafting of a specific management plan will undoubtedly boost a wider stakeholder collaboration for bears conservation in Myanmar.