

# Tamaraw Conservation:

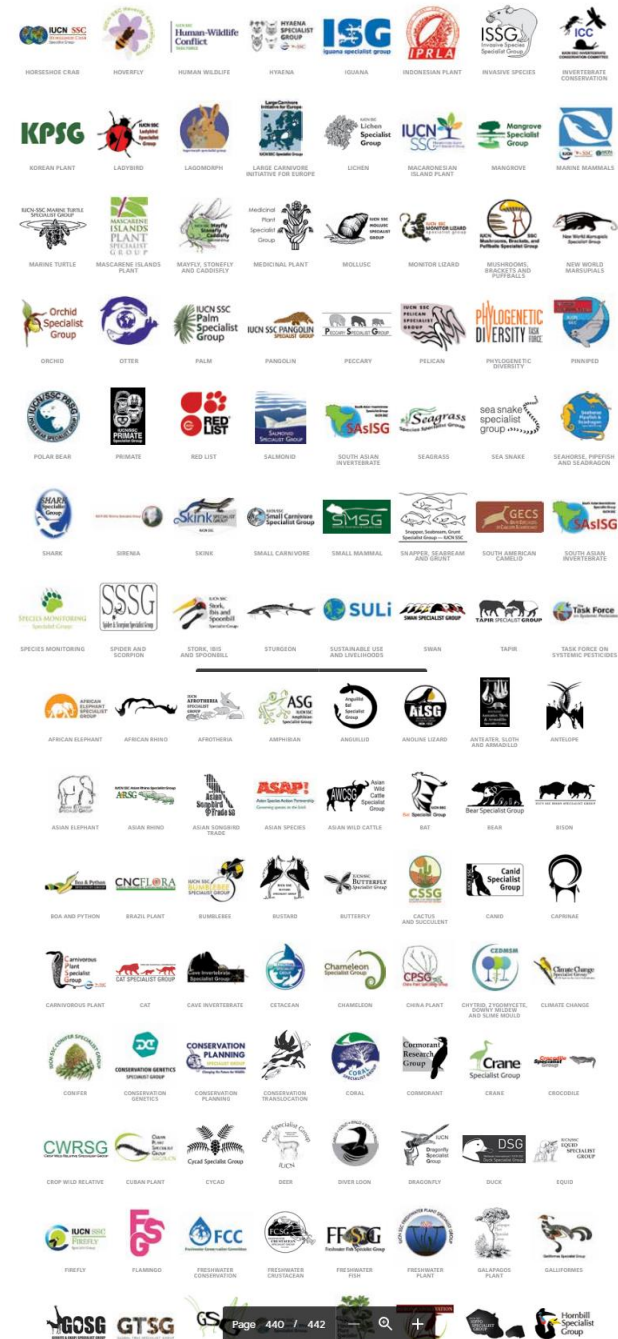
## Introducing IUCN SSC Asian Wild Cattle Specialist Group, Tamaraw Conservation Management and Action Plan, and Feasibility Study for Translocation and Captive Breeding



James Burton  
Chair, IUCN SSC Asian Wild Cattle SG & Chair, EAZA Cattle and Camelid TAG



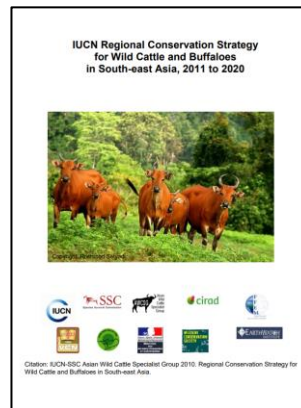
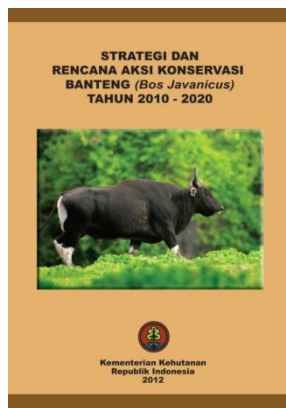
- One of six IUCN Commissions
- Network of 8000+ global species experts
- 140 Specialist Groups
- Work is to assess species status, plan conservation actions and implement actions where appropriate



# IUCN SSC Asian Wild Cattle Specialist Group



- Nine species, all listed in Threatened categories of Red List
- 90 volunteer members, 15 experts from Philippines
- What we do:
  - Assess species status
  - Facilitate species conservation planning & support monitoring of plans
  - Support implementation by Governments and NGO with technical input and information sharing



**ACTION INDONESIA**  
GLOBAL SPECIES MANAGEMENT PLAN







## Asian Wild Cattle Species



# The IUCN Red List of Threatened Species



**Tamaraw**  
*Bubalus mindorensis*

**Critically Endangered**

POPULATION TREND: Decreasing  
NUMBERS OF MATURE INDIVIDUALS: 220-300

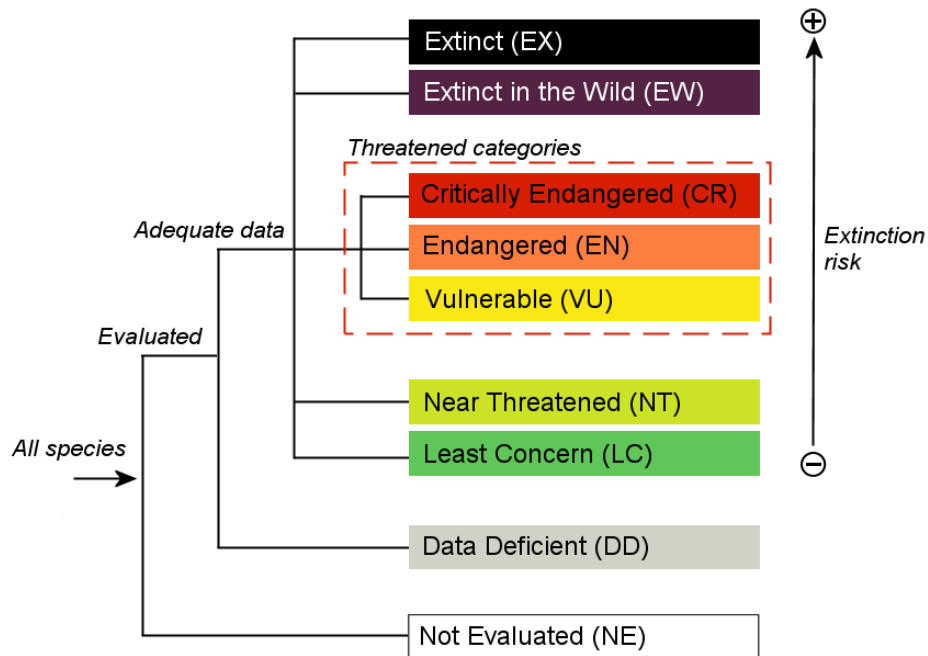
HABITAT AND ECOLOGY: Forest, Shrubland, Grassland

THREATS: Residential & commercial development, Agriculture & aquaculture, Biological resource use, Natural system modifications, Invasive and other problematic species, genes & diseases

CONSERVATION ACTIONS IN PLACE: In-place land/water protection, In-place species management, In-place education

CONSERVATION ACTIONS NEEDED: Site/area protection, Resource & habitat protection, Site/area management, Species management, Formal education, Training, Awareness & communications, Legislation, Enforcement and enforcement

Updated in 2016





# Tamaraw distribution in 2021

**Only 4 known locations**

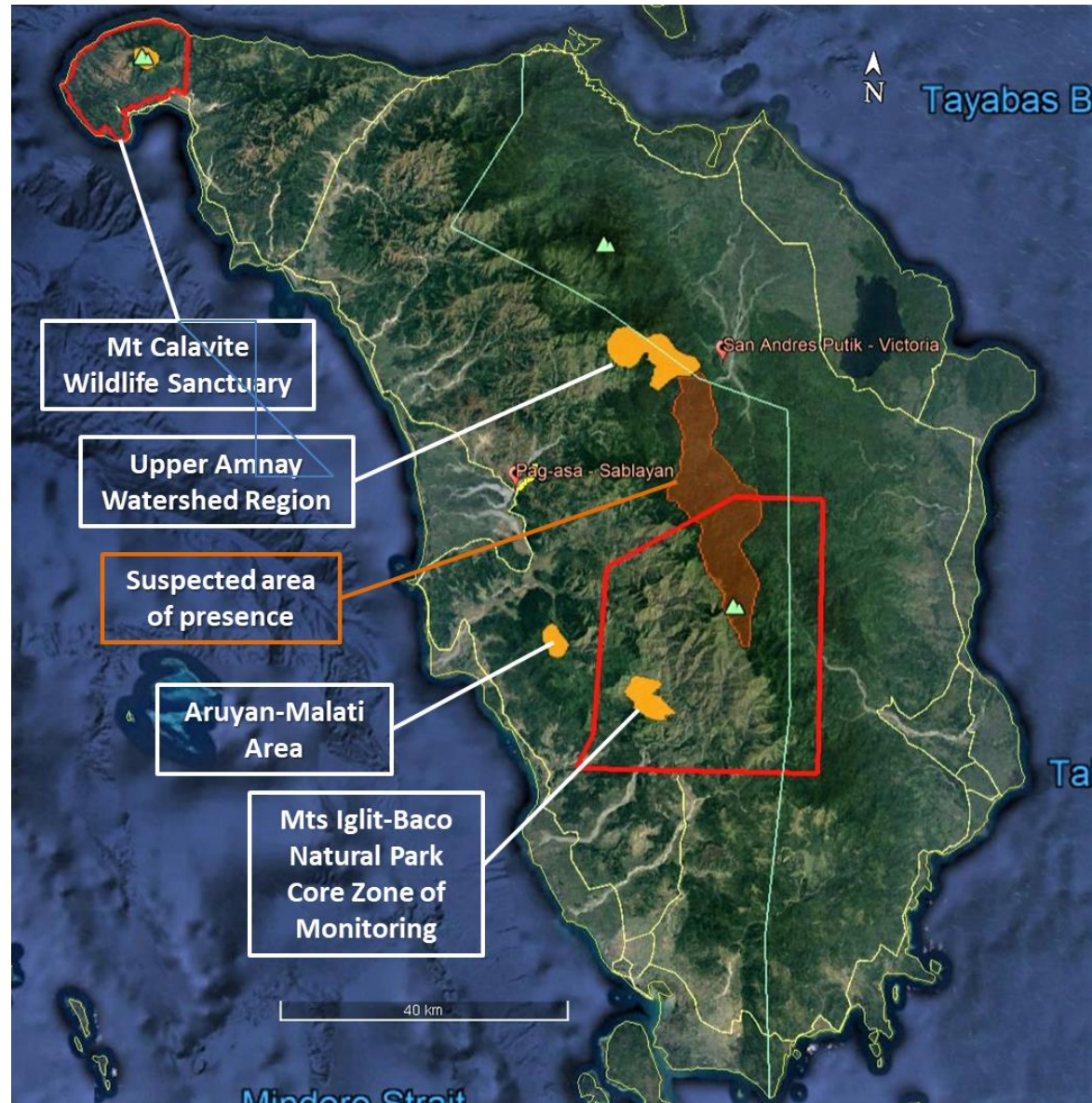
**Subpopulations isolated**

**Overall distribution not larger than 10,000 ha  
= 1% of Mindoro size**

**2 small populations  
= Not viable**

**2 populations outside  
Protected Areas**

**Need to strengthen  
meta-population  
conservation in multiple  
sites**



# Tamaraw Conservation and Management Action Plan Workshop

- Organised by DENR through BMB and TCP. Held in December 2018, San Jose, Mindoro



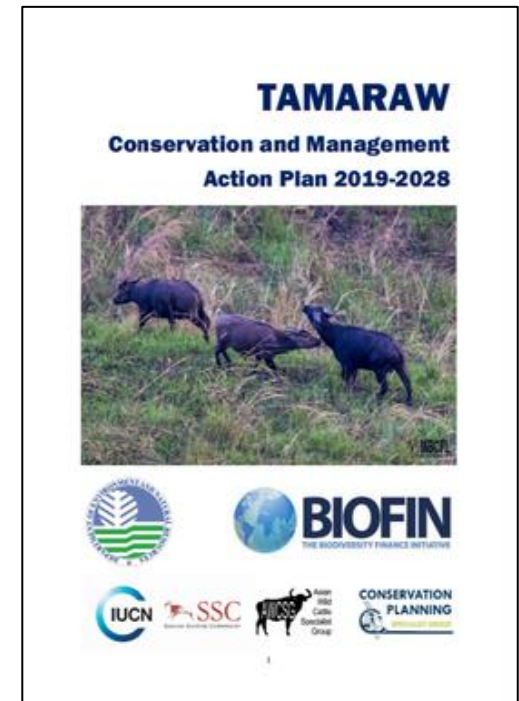
Representatives from DENR (BMB, BIOFIN, MIMAROPA Region, ERDB, PENROs, CENROs, the Tamaraw Conservation Program (TCP), Protected Area Management Offices of MIBNP, MCWS and NLNP); LGUs (Provincial, Municipal and Barangay level); other National Government Agencies (NCIP, DOST and PCC); IP representatives whose Ancestral Land shelters Tamaraw; NGOs (DAF, MBCFI, WWF, KMFI and CCI); youth sector; and academe



## Importance of TCMAP

## Vision for 30 years:

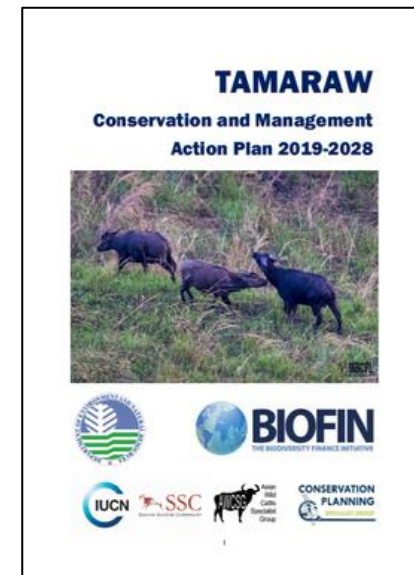
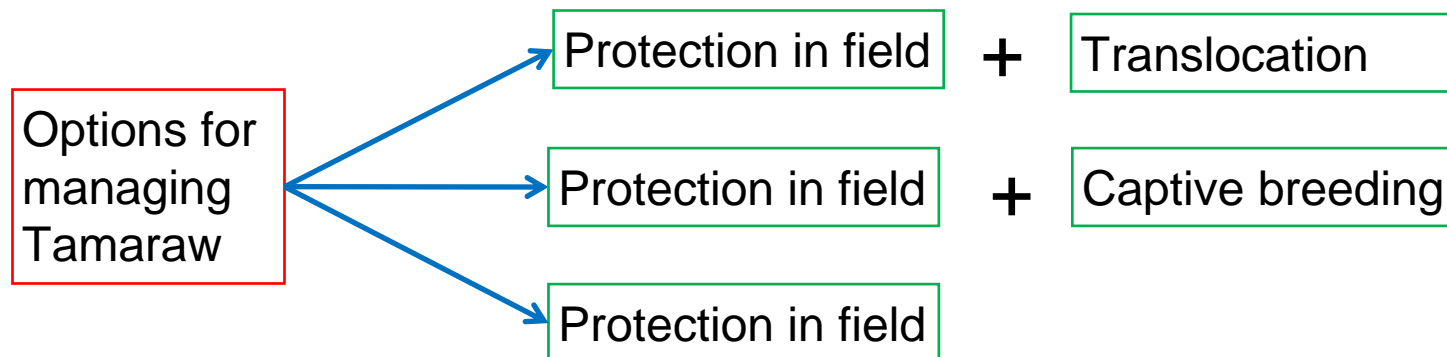
- “By 2050, the Tamaraw, a source of national pride and a flagship for Mindoro's natural and cultural heritage, thrive in well-managed habitats and populations that co-exist with Indigenous Peoples across Mindoro.”
- Complex conservation actions needed for Tamaraw
- Single plan for all stakeholders ensures efficient implementation
- Coordination essential
- Implementation since 2019 so review is timely to adapt plan as needed, ideally annually





# Feasibility Study for Translocation and Captive Breeding

- TCMAP: Growth in tamaraw numbers must be supported at several different sites to secure the species from extinction
- This is best achieved with **translocation to current or new sites** and potentially a **captive breeding program** as an insurance population
- A feasibility study will assess if these activities are likely to achieve the target population and are feasible.



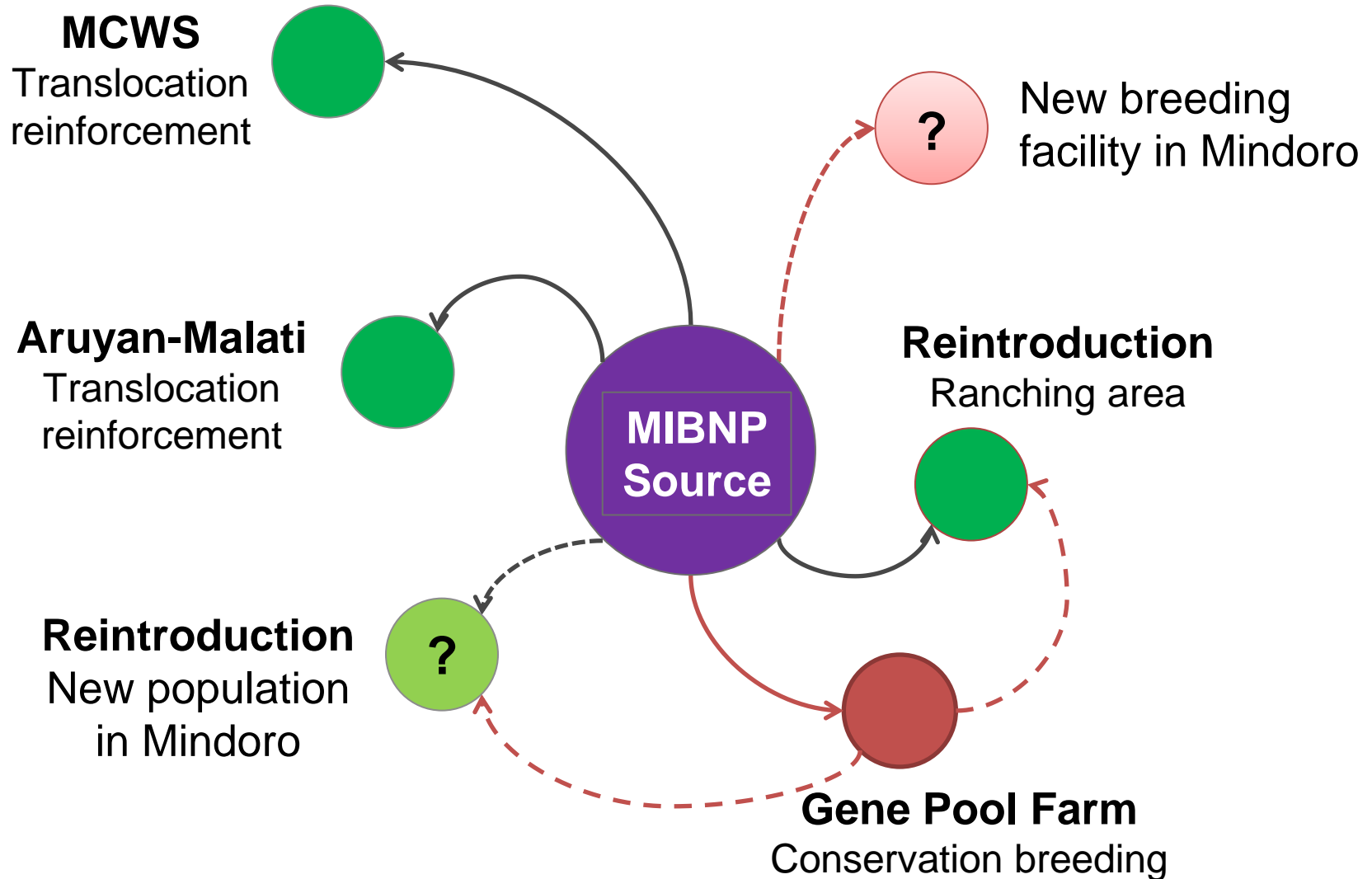
## Current and future Tamaraw population size estimates

	Current size
Site	2018
Mts Iglit-Baco NP	400 - 500
Upper Amnay / Upland Inner Mindoro	10 - 60
Aruyan Malati	3-15
Mount Calavite	0 - 5

The TCMAP strategy for ensuring a thriving Tamaraw Meta-population could take the current total Tamaraw numbers from **N > 500**, to **N > 700 by 2028**, and to **N > 2000 by 2050**.



# Scenarios for meta-population and *ex-situ* program across Mindoro



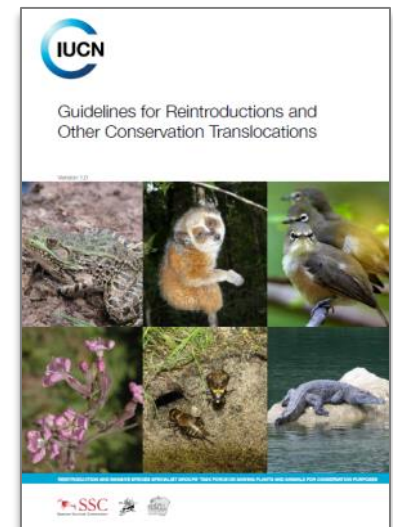
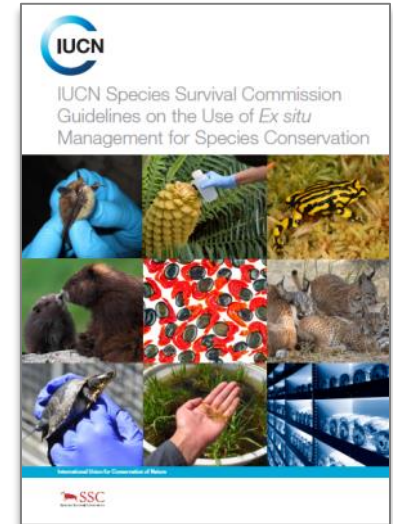
# Feasibility Study Process and Outcomes

## Process:

- Meet with key representatives involved in tamaraw conservation and management
- Make visits to potential sites for capture, release or captive breeding
- Compile the necessary data to make informed recommendations

## Outcomes

- Will provide Government with report with recommendations on the feasibility of both Captive Breeding and Translocations (including costs)
- The team can support government decision-making through a facilitated technical workshop, if required





## Feasibility Study Locations

- Mts. Iglit Baco Natural Park (Core Area, Ranch Area, Tamaraw Gene Pool Farm)
  - Mt Calavite Wildlife Sanctuary
  - Upper Inner Mindoro range
  - Aruyan Malati Tamaraw Reservation
  - Occidental Mindoro State College
  - Other sites as proposed before and during visit  
(include sites identified from assessment of habitat suitability for tamaraw)
- PENRO
  - CENRO
  - PAMOs
  - TCP
  - IPs
  - LGUs in both provinces
  - NGOs

# **Feasibility Study team members**

## **Malcolm Fitzpatrick**

- Curator at the Zoological Society of London, with 30 years experience in captive management of Endangered Species

## **Jeff Holland**

- Director of Conservation at the Center for Conservation of Tropical Ungulates, with 34 years experience in Captive Management of Endangered Species and the Development of Captive Breeding Programs

## **Markus Hofmeyr**

- Rhinos without Borders, with 34 years experience with translocations and captures

## **Local Counterpart**

- Ideally representing the Tamaraw Conservation Program

## **Expert in the Biology & Ecology of Tamaraw**

## **DENR Representative**

## **Veterinarian**



# Feasibility Study proposed steps

Month 1

Initial meetings, fact finding, minimal site visits



Month 4

Acquire necessary permissions to conduct feasibility study



Month 5-7

Feasibility study, site visits and meetings &  
Rapid habitat suitability and threat to tamaraw assessment



Month 10

Report provided



Month 11-17

Small technical workshop to use the information in a decision process, if requested by the government.

## **Discussion topics:**

- A. TCMAP update and monitoring progress?
- B. Future mandate and organisational structure of TCP?
- C. Feasibility Study next steps?