Project Update: January 2021

1. **Training Research Assistants**

Due to current pandemic, using google classroom platform (**Figure 1**), the project virtually trained 19 field professionals on equipment use and field techniques. The field staff were trained on how to use GPS, spotting scope, and camera traps. Repeated session on how to count the number and recognise langur age/sex classes, identify langur feeding trees, and conduct farmer interviews were conducted. To ease data collection, project (forms) were built using the Android app epicollect5 (https://five.epicollect.net/). All professional uses same format to report the encounter of golden langur within study area.

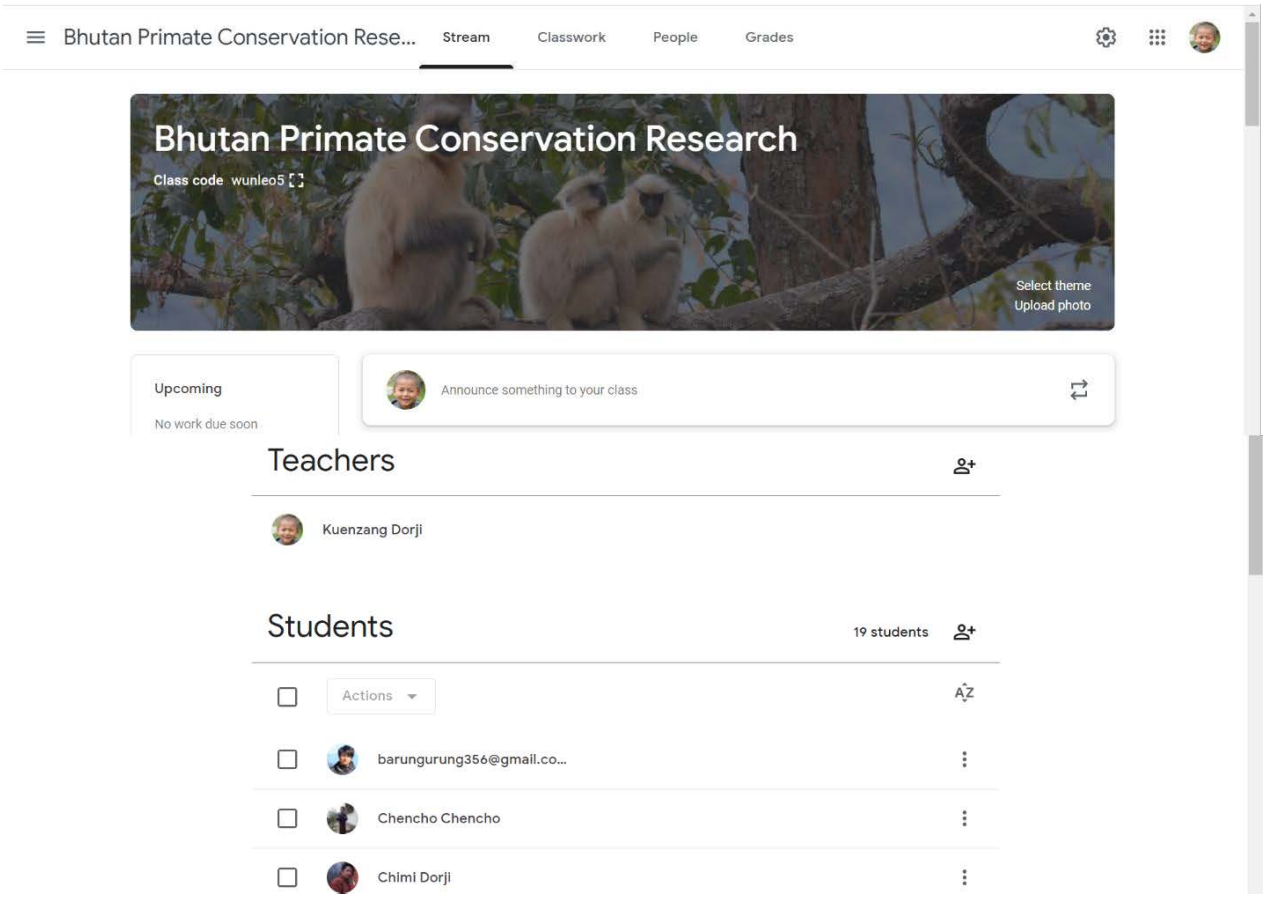


Figure 1. Google room platform and the participants' details

2. Collection of golden langur's basic ecology data

I and 19 field assistants have collected data on basic ecology of golden langur for 24 langur groups ranging inside and outside protected areas. So far, we recorded 297 langur individuals in the 24 groups through intensive surveys. Through our intensive surveys, we estimated the mean size for groups inside the biological corridor at 9.55±3.04 individuals (s^2 =15.49 individuals) and 13.73 ± 3.94 individuals (s^2 = 9.27 individuals) for groups outside the biological corridor. Standard format was used to record the basic ecology of golden langur (**Figure 2**)

Entry: Ecology of Golden Langur

Title	Ecology of Golden Langur
Observer	Ratan
Date of collection	23/12/2020
Time	13:36:00
Group Identity/Number	Sisty Gr
No.of individuals	5
Male	
Female	
Juvenile/young	2
Abnormalities	
GPS location	26.86117, 90.23431
Name of the site	Sisty
Plant species	Dubangia spp
Edible parts	Tender leaf
Any other information	

Figure 2. Standard Reporting formats (a) and group of golden langurs at sleep site (b).

3. Assessment of extirpation risk

The risk assessment was piloted in central Bhutan (Langthel sub-district) in two landscapes, a biological corridor and outside a biological corridor (Refer **Figure 3)**

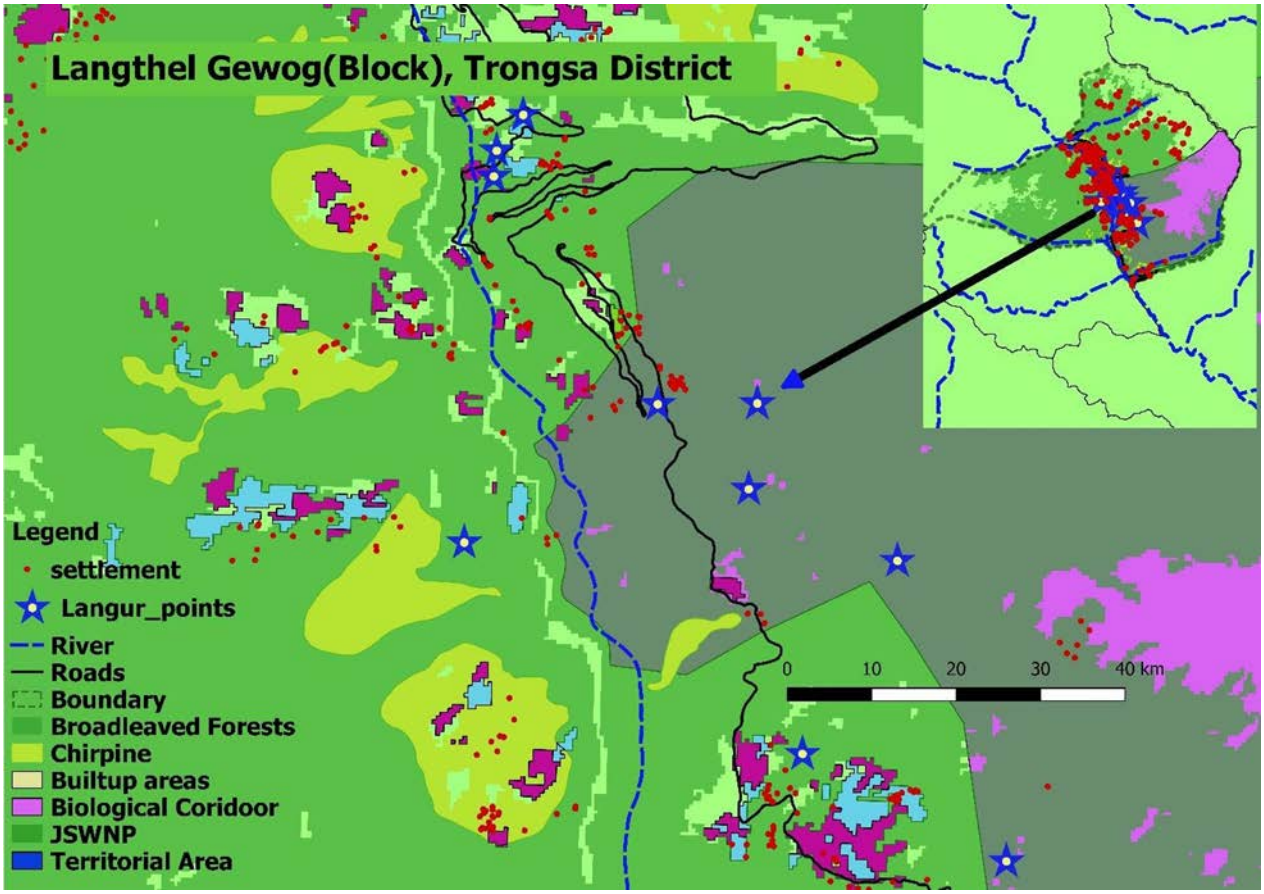


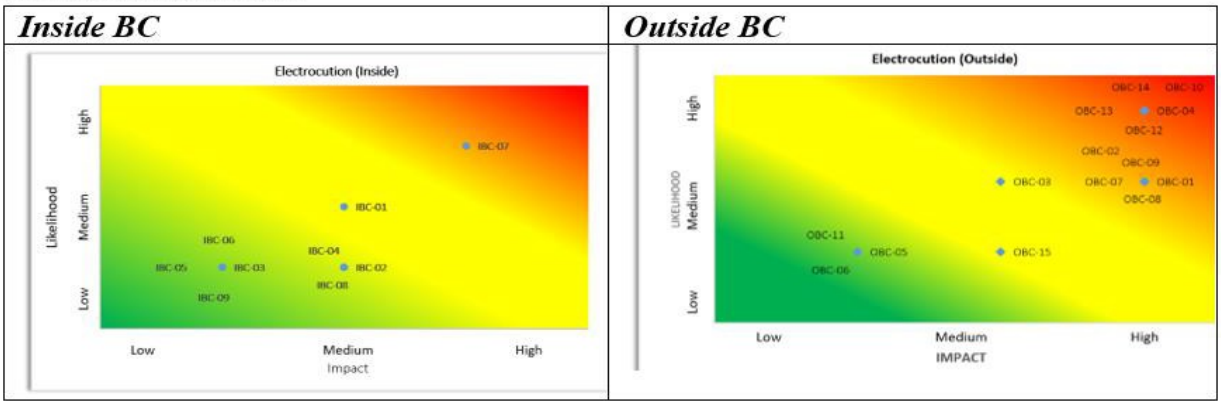
Figure 3. The location of golden langur groups in Langthel gewog (Block) Trongsa District

We are assessing the extirpation risk of golden langur groups residing within the study area based on population demography, predation risk, sleeping sites, and human attitudes toward langurs. The risk matrix was developed in order to quantify the related risk and two emerging risks that are electrocution and roadkill were assessed for 24 groups (**Figure 3)**.

Table 1. Golden langur focal group's impact and likelihood of extirpation risk based on identified threats

Threats	Criteria	Impact	Likelihood	Risk
Electrocution	Transmission line passes through feeding range within 0.5-1meter	5	5	High
	Transmission line passes through feeding range within 3-5 meters	3	2	Medium
	No transmission line within the feeding range	1	1	Low
Roadkill	Road with average car traffic of 6 vehicles/hour passing through their feeding range and golden langur crosses the road at least1/day	5	5	High
	Road with average car traffic 3 vehicles/hour passes through the feeding range, they cross at least 1/3 days	4	2	Medium
	Road within the distance of the feeding range and the langurs rarely cross the road	2	1	Low

Risk 1: Electrocution



Risk 2: Road Kill

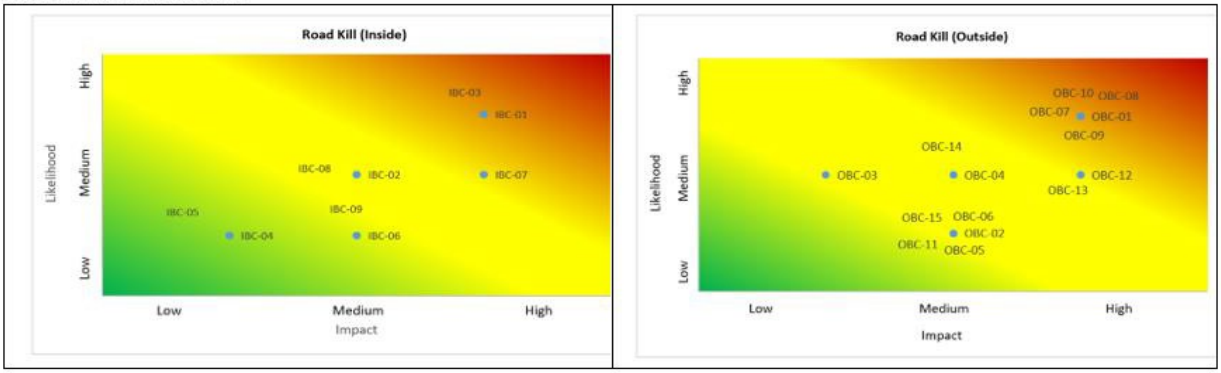
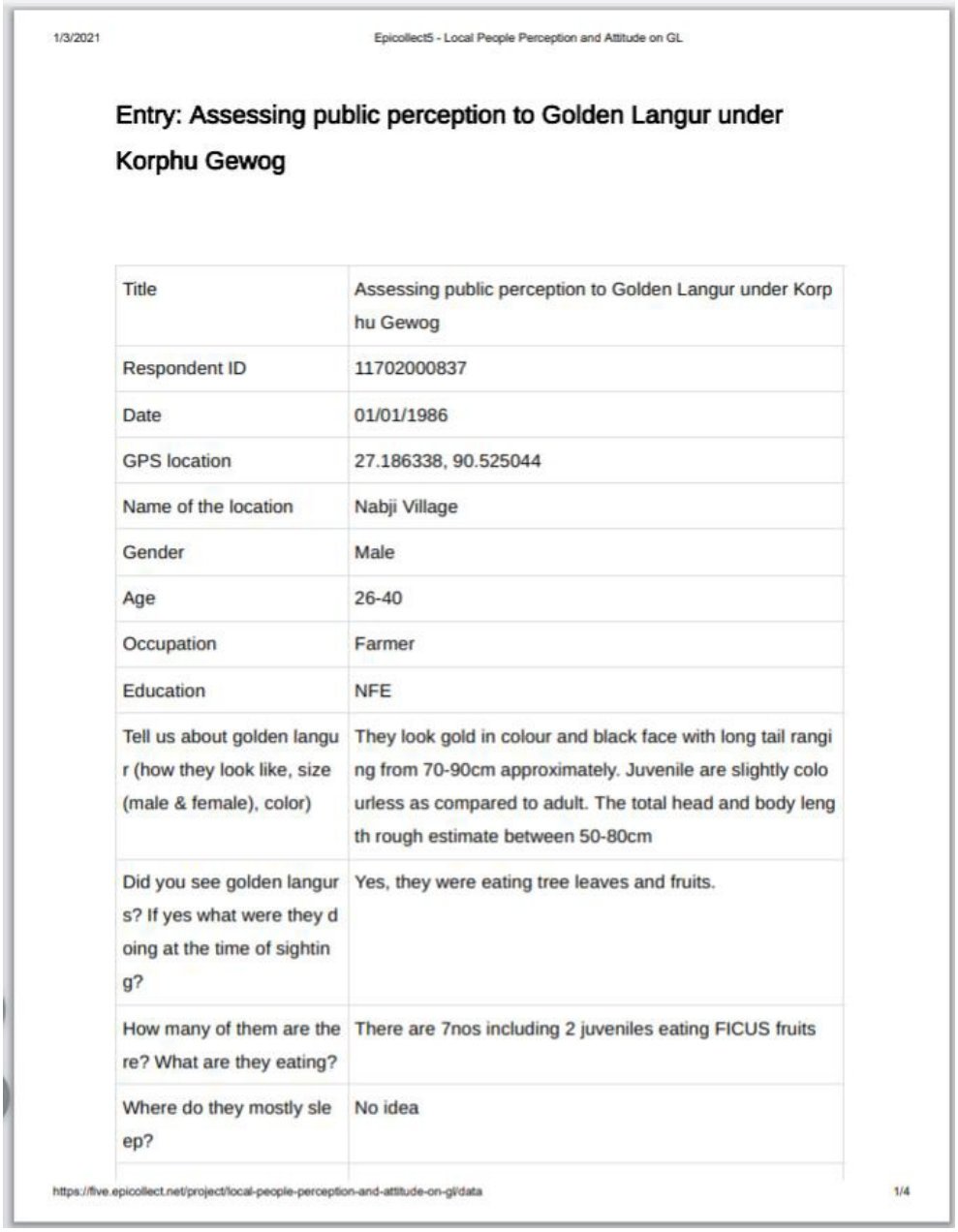


Figure 4. The probability of golden langur threatened by electrocution and roadkill

4. Farmers' interviews

Farmers living nearby golden langur groups were consulted to gather ethno-primatological aspect of the project. However, the pandemic and COVID protocols hindered meeting with most of the people in the study area. As an alternative, we tried to connect with them virtually over social media like Webchats which is commonly used in rural Bhutan. The forms were developed using epicollect 5 (https://five.epicollect.net/project/local-people-perception-and-attitude-on-gl). As of today, 10 local people were consulted to understand their views and perceptions on golden langur based on the following questions.



1/3/2021 Epicollect5 - Local People Perception and Attitude on GL

Entry: Assessing public perception to Golden Langur under Korphu Gewog

Title	Assessing public perception to Golden Langur under Korphu Gewog
Respondent ID	11702000837
Date	01/01/1986
GPS location	27.186338, 90.525044
Name of the location	Nabji Village
Gender	Male
Age	26-40
Occupation	Farmer
Education	NFE
Tell us about golden langur (how they look like, size (male & female), color)	They look gold in colour and black face with long tail ranging from 70-90cm approximately. Juvenile are slightly colourless as compared to adult. The total head and body length rough estimate between 50-80cm
Did you see golden langurs? If yes what were they doing at the time of sighting?	Yes, they were eating tree leaves and fruits.
How many of them are there? What are they eating?	There are 7nos including 2 juveniles eating FICUS fruits
Where do they mostly sleep?	No idea

https://five.epicollect.net/project/local-people-perception-and-attitude-on-gl/data 1/4

Figure 5. Semi-structured questions for farmers' interviews

Some photographic evidence from the field

Left: Handing of Coolpix P1000 to field professionals. Right: Monitoring Golden langurs' movement.

Left: Setting up of camera traps to assess the predator at golden langur sleep site. Right: Taking diameter measurement(a) and pellet of barking deer (b).