

Ebolowa-Kribi Road Project in Cameroon

ARRC Task Force's comments on Phase II great ape

baseline survey design

July 11th 2023

The ARRC Task Force has been asked to provide feedback on the proposed survey design for Phase II of the baseline data collection for great apes (chimpanzees and gorillas) along the proposed Ebolowa-Kribi road upgrade in Cameroon. We received a PowerPoint presentation entitled '*EAK Project- Great Apes Surveys - 30.06.23_rev.1_ask*' outlining some of the results from Phase I and the proposed plan for Phase II, with additional details, and the CVs of the four Cameroonian primatologists who will lead the four teams during the field work.

Phase I gathered useful qualitative information about the presence/absence of great apes from interviews conducted in several villages within the area of influence of the project. These results provided information on potential distribution of great apes, type and intensity of threats, as well as potential areas where great apes cross the road.

Phase II of surveys would entail conducting field surveys across both the rainy and dry seasons to obtain quantitative data on the distribution, relative abundance and density of great apes, as well as habitat use, their movement patterns and further information on threats (i.e., hunting pressure, crop raiding), as well as intensity of human activities within the area of influence.

Upon review of the information provided, the ARRC panel for this project recommends the following:

- **Identification of hotspot areas of great ape road crossing:**
 - Placing Camera Traps (CT) along the road as proposed may be 1) too short in duration to gather any meaningful data, and 2) risky (risk of theft or sabotage) unless there is a very good sensitization of villagers and that the CTs are somewhat hidden from view from passing vehicles. We do recommend that such sensitization takes place in any case, as it will certainly be needed before the dry season with the deployment of more CTs for distance sampling; such sensitization should highlight the clear objectives of the CTs and that none of the CT data will be used for law enforcement purposes.
 - Hotspots of great ape crossing may be most effectively identified by having one dedicated 'road team' which would concentrate on the area closest to the road. This team could speak and work with knowledgeable villagers/hunters who can indicate known crossing points and show signs of great ape presence. However, in such a case, the 'road team' also needs a primatologist who can recognize signs of great apes.
- **Comparability of data between seasons:** As it is critical to gain an understanding of seasonal patterns and movements of great apes, it is key that data gathered provide the opportunity for comparison between seasons:
 - Conducting recces as proposed in the rainy season will be useful in securing data on great ape nest encounter rate (ER) and other signs across different habitat types. ER data will serve to design the line transect survey, but we suggest that recces are also

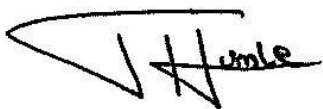
conducted between line transects in the dry season so that, within grids, data are available to compare area usage by great apes across seasons.

- Rather than deploying the current 50 CTs along the road, we would recommend that the project deploys them in suitable ape habitat (maybe 2 per North-South recce in places where there is clear evidence of great ape presence and at least 1 km apart to get suitable coverage of the project's area of influence). These CTs could then be left until the end of the dry season baseline surveys. However, these will need to be checked to change batteries and SD cards (with good batteries and good memory SD cards these could probably be left for three months before checking them). These will provide additional data for comparison of capture rate per CT location between seasons across different localities for both great ape species. These could also eventually serve for future monitoring purposes with training of villagers in their maintenance and data recovery.
- **Team composition:** Concerning the team leaders' CVs, no particular concerns were raised and they all appear to have previous survey experience and competencies in identifying signs of great apes.
- **Dry season surveys:** We very much encourage the use of complementary methods to generate density and abundance estimates for great apes. CTs distance sampling will require a systematic design and auxiliary variables to be collected when placing the cameras, so training will be needed before the dry season surveys begin. The line transects will provide another method for estimating great ape abundance. In this regard, we would like the project to inform us on how they plan to estimate the nest decay rate and production rate for the analysis.

The ARRC Task Force panel for this project would like to see the updated final protocol for the rainy season surveys before they start. We would also like to review the results from these first field quantitative surveys once the surveys are completed, as well as the resulting proposed design for the dry season surveys.

Should you have any queries, please do not hesitate in reaching out to us.

Best regards,

A handwritten signature in black ink, appearing to read 'T. Humle' or similar, with a stylized, sweeping line above it.

Dr Tatyana Humle

On behalf of the ARRC Task Force panel for this project