



Ebolowa-Kribi Road Upgrade Project in Cameroon

ARRC Task Force's comments on Phase II ape survey results (dry & wet season) and proposed mitigation measures

April 26rd, 2024

The ARRC Task Force received on April 5th, 2024, the following two documents for review:

- *EAK Project- Great Apes Surveys - Results Dry season -03_04.rev0*: the report of the results of the dry season surveys for the Kribi-Ebolowa road.
- *EAK Project_Great Apes_Survey Dry S_SoW_Report22Mach_WSPform*: a powerpoint summary of the wet and dry season surveys, where the final slides emit some of the proposed mitigation measures and avenues for offsetting the impact on great apes.

General comments

In general, the panel was satisfied with the dry season survey report, although had the initial design been completed in full, maybe enough nests would have been recorded to conduct an analysis with Distance Sampling to estimate the abundance of great apes. However, it is apparent that great apes' density is relatively low in the Area of Influence (Aoi) of the project, and hence the coverage and effort needed to estimate abundance should have been significantly greater. The proposed mitigation measures during the construction and operational phases of the project are generally good, although we do make further suggestions below for the project to consider. The panel also has emitted some further recommendations for offset options, as the current options may not allow for the project to achieve a net gain for great apes.

Dry season surveys and estimation of great ape abundance

The panel has noted that the survey effort deployed for the line transect failed to yield enough nests during the dry season survey to run a Distance Sampling analysis. This was attributed to the presence of high anthropogenic pressures, including agricultural activities, fires and hunting, and paucity in fruiting trees, which could also potentially be

seasonal. Although the consultants did follow our suggestions during the survey design phase, which involved a focus on the central part while conducting reverse recces, the recces and transects did not extend to the northern border of the Area of Influence (Aoi) as initially planned which is highly unfortunate. This reduced survey effort and coverage and could have affected the number of nests recorded for a Distance Sampling analysis. Camera traps are still out and will be recovered shortly which could provide additional information.

The study was fortunately able to identify wildlife crossing points with some confirmed for great apes which will be highly beneficial for implementation measures aimed at minimizing the risk of collision with great apes, and ensuring that great apes can still cross the road to maintain connectivity in their populations.

Depending on the number of great ape images captured on the camera traps (CTs), different types of data and results can be generated from these:

- If there are enough images, then it might be possible to identify individuals (however, this can be time consuming and requires a blind process with the involvement of at least two great ape experts) and run a capture-recapture analysis.
- Occupancy analysis if possible; this can help capture seasonal variations in habitat use if the current layout allows for such an analysis.
- Analysis of physical signs of health, e.g. snare injuries, any external signs of disease. The CTs can be used for future monitoring for such aspects.
- The CT data can also provide information on groups (easier for gorillas as they tend to be more cohesive than chimpanzees who exhibit fission-fusion social dynamics), their distribution (repeat capture of individuals belong to same group or party), as well as providing a sense of sex ratio and age structure and reproduction.

Considering the project's inability to estimate great ape density using Distance Sampling, we suggest that the project employs the nest encounter rate to generate a density estimate using data from other similar sites where densities have been estimated and nest encounter rates are known. Alternatively, it may be possible to combine Dry and Wet season data on nest sightings, and potential areas of occurrence (all signs + camera trap data) for a modelling study which could help yield an estimate for the potential density of nest which could then be converted into individual density across the survey area.

Proposed mitigation measures

- The PPT provides a list of proposed mitigation measures during the construction and operational phases of the project. We generally think that proposed actions are good and follow best practices, although we are very concerned that there will be a significant expansion of agriculture and other economic activities once the new road is completed. Ideally, we would recommend the development of a participatory and inclusive local land use planning process for the area to ensure sustainable land use options in the whole area. Such a process will entail engaging with other ministerial departments.

- Putting in place policies for construction staff is also critical and several good measures are listed in the PPT; you may consult the following guidance issued by the ARRC Task Force for further useful measures on the reduction of disease transmission risk: infographic entitled '[Great Ape Disease Risk Mitigation for Industrial Development Projects](#)'.
- There is a proposal for one wildlife crossing infrastructure and we would highly recommend that it is placed in a suitable location where great apes are known to cross already, and which does not readily run the risk of inundation. In this location, the road should be elevated to allow passage beneath for both great apes and terrestrial wildlife. The passage needs to be large enough so that animals do not feel trapped and can see on either side. We would highly recommend the project to then set up camera traps in an appropriate location on both sides to monitor usage by great apes and other wildlife. The project will also need to make sure that hunters do not use the passage for hunting wildlife (e.g., setting traps). Such data will allow effective monitoring of this mitigation measure but will also yield critical data that could be useful to other project, as there is currently a gap in our understand of the most effective wildlife crossing infrastructures for great apes.

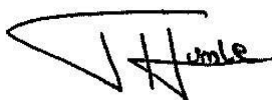
Offset options

- The PPT document also emits preliminary propositions for offset actions. It would make sense for the project to set up a trust fund with a good governance system to support the management of Campo Ma'an National Park, as well as environmentally friendly development activities around the park which could be supported by the trust fund with suitable partners. Another suggestion may also be to contribute to the expansion of the Campo Ma'an National Park; such an option would require a thorough feasibility analysis, while also strengthening protection measures, especially where current gaps exist.

We look forward to receiving the results of the wildmeat surveys and finalized drafts of the project documents for review.

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

Best regards,



Dr Tatyana Humle

On behalf of the ARRC Task Force panel for this project