Comments from the ARRC Task Force on the Dynamic Mining Bon Ami Bauxite Mining project, Guinea

June 27th 2023

SLR comments provided in Green

In 2021, the ARRC Task Force provided feedback and recommendations on additional surveys for western chimpanzees to be undertaken by Dynamic Mining Bon Ami Bauxite Mining project in Guinea, West Africa. After a pause in the project, the ARRC Task Force was recontacted in May 2023 to resume its engagement with the project.

We agreed on the following summary of deliverables to be sent to ARRC for review moving forth with the project:

- Stage 1: Chimpanzee survey report, summary update on camera trapping, draft BMP
- Stage 2: Biodiversity Action Plan (to be sent once comments received from ARRC on Stage 1 documents)
- Stage 3: Biodiversity Offsetting Management Plan (to be sent in about August once approach is more fully developed)

The ARRC Task Force was sent on May 22nd, 2023, the following Stage 1 documents for review:

- Chimpanzee survey report: '*220720_Chimpanzee Survey Report 2021 - V1 lo-Res.pdf*'
- summary update on camera trapping: '*Chimps Work To Date.pptx*'
- BMP: '*Terrestrial Biodiversity Management Plan_DRAFT_for IUCN*'

General comments

- We were happy to see that the project followed COVID-19 protocol to minimise the risk of transmission of COVID to chimpanzees during the conduct of the chimpanzee surveys.
- Although the additional line transects have allowed the project to generate a more robust baseline estimate for chimpanzees in the project's area of influence, this method, as applied here, generated a wide confidence interval because only a few transects recorded signs of nests (which increased the confidence interval). Furthermore, the nest decay study did not follow the appropriate protocol and cannot therefore be used. This is unfortunate as nest decay rate can vary a lot between locations and seasons and influence the accuracy of abundance estimates. It must be noted too that line transect surveys tend to underestimate abundance compared to more robust methods, which is why it is recommended to use complementary methods to ensure a better accuracy in the abundance estimate.
  SLR Response: Although the nest decay study did not yield good results it was used in combination with secondary data to produce an accurate estimate and range of nest decay data which was used to inform the model. This work was undertaken by a chimpanzee academic recommended by ARRC and therefore we are confident that the approach used is robust and has provided an accurate estimate of abundance.
  The project was advised by ARRC to use this survey method to obtain data on chimpanzee population so we are uncertain what the more robust methods mentioned above would be. SLR have followed all survey recommendations set out by ARRC to date.
- In the context of IFC-PS6, we would like to highlight that any area or habitat type with evidence of chimpanzees should trigger critical habitat, so in this case this should not only apply to gallery forests. This implies in any case that when it comes to the offset (the last stage of the mitigation hierarchy), the project will be required to achieve a net gain for chimpanzees. We urge the project to use the estimated number of chimpanzees impacted in its residual impact assessment rather than potentially a proxy based on loss of critical habitat.
  SLR Response: Agree the residual impact calculation has used chimpanzee numbers rather than a habitat approach

- The project still needs to complement its abundance and density estimates to adequately advise mitigation measures and to estimate its residual impacts on chimpanzees. For this purpose, further surveys should focus on better understanding the following:
  SLR Response: We have followed IUCN advice throughout the data collection process and believe that our abundance and density calculations are based on adequate data. We propose to compliment our data using existing camera trap data to address some of the issues below. We are also intending to collect additional chimp data through camera trap surveys but this will be an ongoing monitoring approach running alongside the current work scope (BAP, BOMP, BMEP delivery). See comment below.
  - The structure of the chimpanzee population (how many communities/groups use the area?) The presence of several communities/groups can lead to inter-group lethal aggressions and also extend the project's area of influence to neighbouring chimpanzee communities.
    SLR Response: We will be using existing camera trap data to try and identify individuals to help establish understanding of community groups
  - The number and demography, including sex ratio and age-class distribution, of chimpanzees in each community.
    SLR response: We have data to show we have mixed age groups. This data can be further analysed to provide some further answers
  - The territory of each community and key areas to maintain within and between community connectivity (essential in ensuring that chimpanzees can travel unimpeded within their territory and that females can migrate between communities to sustain the genetic viability of the population)
  - Key areas for nesting and feeding within the landscape; these areas should be avoided by the project, either classified as 'no-go zones' or classified as set asides within the project permit to ensure that no project activities occur therein, e.g. no camps located in these areas. In such a landscape, it is highly unlikely that chimpanzees will readily be able to shift their range and therefore all forest habitats, especially gallery forests, are critical to the maintenance and survival of chimpanzees.
    SLR response: Agreed we have suggested avoidance of all gallery forest. Mine panels were redesigned as part of project design leading to only a small loss of 3.6 ha. The haul road has been redesigned with the sharing agreement resulting in no loss of gallery forest. Recent conversations have led to agreement with DM that minor adjustments can be made for total avoidance. However, as this agreement is currently only verbal it has not been included in the residual impact quantification.
  - We would also recommend the project to list botanical species of importance for food and nesting for chimpanzees; we are pleased to see that tree species were recorded for nesting. Such a list can help inform important trees to avoid during preclearance surveys and will also be useful for habitat restoration purposes ensuring that important floral species to chimpanzees are also being replanted.
    SLR response: We are looking at asking DM to do some analysis of fecal sample as part of ongoing monitoring
  - Finally, it is also key that the project gathers baseline data on the current threats to chimpanzees in the landscape, e.g., habitat conversion to agriculture such as cashew plantations (this can be done with ground truthing and satellite vegetation maps), hunting and killing of chimpanzees. There is mention that chimpanzees have been killed by outsiders whether for meat or potentially as a crop protection measure (albeit being illegal); has the project carried out a baseline study on current hunting practices and bushmeat trade in the locality? If yes, we would welcome seeing the results. If no, we would encourage such a study to be undertaken.
- SLR can provide data from community surveys undertaken. To assist with obtaining such level of information as described above and more precise abundance estimates for chimpanzees,

we would recommend that the project performs a
stratified Camera Trap Distance Sampling (CTDS) design and identifies individual chimpanzees from pictures/videos already taken, and future ones. Stratification by habitat type will mean that more cameras should be set in gallery forests (the favoured chimpanzee habitat type in this landscape) than other habitat types which will help reduce the confidence interval in the density and abundance estimates and will also allow at the same time to secure more records of chimpanzees on the camera traps which can then be used to identify individual chimpanzees. The latter will contribute to understanding demographics, general health status of individuals and will contribute to future monitoring and project impact evaluation on chimpanzees (to be included in the BMEP). Such an approach will require more camera traps (CT) to be placed systematically across the landscape with a similar coverage of grid cells as the line transect design; if a sufficient number of CT can be obtained, then these can be set up at once and left for at least 3 months (but checked at least once to ensure there is no malfunction, theft and adequate battery level and space on the SD cards); if the project is unable to obtain a sufficient number of CTs then these can recovered and relocated after 3 months to other locations; however it is best that the design does capture seasonal variation in chimpanzee habitat use etc. For the best results possible, the team involved in the CT placement, data collection and analysis, including individual identification, should be experts or properly trained by experts in CTDS and Camera Trapping with chimpanzees (including individual identification).

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SLR Response: SLR set up a CTDS approach in 2021 at the end of the transect survey period. The methodology used was that agreed by IUCN. Unfortunately, this was just before Covid restrictions were implemented, a time when SLR were no longer involved in the project, and it seems that the grid system ran into difficulties during this time. As part of this, there were numerous thefts and issues with camera traps and DM have slowly been building trust with communities in order to leave camera traps out. This meant that that grid system was abandoned in favour of one that protected the remaining cameras. SLR have informed DM that they need to reinstate the camera trap surveys in order to provide additional data for the project. However, as described earlier in our responses, SLR are confident that the data collected on chimpanzees to date, is robust and that we have an accurate estimate of population that can be used to calculate residual impact and biodiversity offset requirements. We understand that additional data will be useful to refine mitigation approaches throughout the project design but that the project can continue with its development of the BAP and BOMP based on current data.

Specific comments

- In the *Chimps Work to Date*', concerning the Camera Trap Data and Maps slides, it is unclear what the data in the tables or the maps reflect precisely, i.e., whether the camera counts refer to individually identified chimpanzees or just separate images/videos and records of chimpanzees? We have also noted that the current CT layout fails to adequately capture grids that are of either high or low probability of chimpanzee presence within the area of influence.
  SLR response: Agreed. DM have been informed to set up grid system for camera traps as per original methodology
- To better appreciate the project's impacts on chimpanzees and to propose effective avoidance and mitigation measures, a more zoomed in map describing each of the mining infrastructures/components (pits, camps, access roads etc.) proposed and/or already in place and the current details on the proposed spatial and temporal operational plans would be highly useful.
  SLR Response: New mapping will be provided with the updated documents
- Concerning the BMP:
  - Please note that section 1.3.1. Applicable laws of Guinea requires some updating as the latest mining law dates from 2011 and not 1995 for example.
    SLR Response: Amended
  - In general, we encourage the project to adopt a precautionary approach when reporting the estimated number of chimpanzees, i.e., avoid using the average

estimate on its own: either report it with range interval as done in other locations in the document or mention the maximum number of chimpanzees.

SLR Response: Understood

- There is mention of potentially two groups or communities of chimpanzees, what is the basis for this assertion?

  SLR Response: Professional judgement from Mattia .Nest decay data has been provided as an attachment to this note. Mattias assessment was based on groups of similar age nests. Further analysis of camera footage may help with justification

- We urge caution when reporting data from the camera traps; i.e., 145 separate records of chimpanzees rather than stating that they represent 145 observed individuals as reported in Table 2, unless of course these indeed represent separate individuals.

  SLR Response: Understood and amended

- The currently proposed mitigation measures are vaguely or too broadly formulated (e.g., '*Ensure workers do not kill or collect fauna and flora',* or '*Verify that speed limits and limits to truck driver's hours are followed*'). These are not practically defined actions, but rather goals. It is therefore unclear how the goals will be achieved in practice. Actions need to be much more concrete and clearly described, e.g., all project vehicles will be checked for bushmeat or other wildlife resources and will be equipped with digital tachographs and drivers with cards which can be blocked after set number of infractions to facilitate monitoring and sanction implementation. The actions should be specific, measurable, achievable, relevant and time-bound (SMART), else the BMP fails to achieve its function.

  SLR response: Understood and amended

- '*Impacts associated with an influx of workers to a region*' is listed in the section concerning the construction and operation phases of the project; however, the closure plans should also address how they will manage this issue. This indirect impact of the project can significantly enhance the threat to local fauna and flora, including chimpanzees. The associated 'action', i.e., '*Conduct training and awareness raising amongst staff regarding biodiversity management*' is inadequate and fails to address the environmental risks associated with such in-migration to the area, such as increased hunting, land conversion and disease risk. These threats need to be mitigated by the project. We would welcome viewing the in-migration plan to see what is proposed therein in this regard.

  SLR Response: SLR have asked DM to provide further information on in migration and worker management but have not yet received any further information

- The project also will require mitigation measures aimed at minimising the risk of disease transmission to chimpanzees, and we would welcome more chimpanzee-specific measures to be included in a revised version of the BMP.

  SLR Response: Agreed and amended

- In the BAP, we will expect each direct and indirect impacts on chimpanzees within the project's area of influence to be clearly defined and accompanied by specific realistic and practical avoidance and mitigation actions/measures that are clearly described; these should also be incorporated into the BMP to ensure their effective implementation. Please kindly note that there is no evidence to date for effective wildlife crossing structures for chimpanzees, so aside from measures aimed at monitoring drivers' speed, such as equipping vehicles with digital tachographs, signage and speed bumps set in advance of key areas where chimpanzees occur and are known to cross are also critical measures to implement. These will require however information on chimpanzee movement on either side of the haul road.

  SLR Response: The BAP is set out in this manner and we have taken into consideration these factors when assessing residual impacts

- There is also mention of the potential presence of the King colobus via questionnaires (and previously of the Temminck's red colobus); considering that these species of primate are endangered (not vulnerable as stated for King colobus in Table 4-1 of *220720_Chimpanzee Survey Report 2021*), the project needs to confirm their presence in situ via recces with

direct sightings or recording of vocalisation. Another method that could be used to confirm the presence of other primate species in the area is through eDNA analysis of water samples or leaf swabbing.

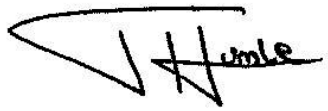
SLR Response: There has been no observations of colobus during the camera trap studies.

- Finally, we recommend that the project starts considering offset options and pre-feasibility as soon as possible so that options can then be selected once the residual impact assessment on chimpanzees is completed and the offset requirement is known, which will take into account different offset multipliers (e.g. uncertainty of offset success, time-lag in obtaining gains).

  SLR Response: This work is in progress. SLR are confident that our assessment of residual impacts is robust, based on the work undertaken by Mattia Bessone using Distance software. However the residual impact calculation can be adjusted to reflect any new data. Our offset options are scalable and can also be adjusted to reflect any changes to residual impacts.

Please do not hesitate to let us know if you have any further questions or if you would like to have a call to discuss our comments.

Best regards,



Dr Tatyana Humle

On behalf of the ARRC Task Force panel for this project