

CONVENTION ON INTERNATIONAL TRADE IN
ENDANGERED SPECIES OF WILD FAUNA AND FLORA



Monitoring the Illegal Killing of Elephants (MIKE) and
Elephant Trade Information System (ETIS)
Fourteenth meeting of the Technical Advisory Group
Nairobi, 7 – 8 November 2018

MINUTES OF THE 14TH MEETING OF THE TECHNICAL ADVISORY GROUP

In attendance:

- TAG sub-regional representatives:
 - Leonard Mubalama: Central Africa
 - Chris Thouless: Eastern Africa
 - Russell Taylor: Southern Africa
 - Raman Sukumar: South Asia (joined through Skype for agenda item 9)
- Global members:
 - Holly Dublin
 - EJ Milner-Gulland
- Co-opted members:
 - Vivek Menon: Chair, IUCN/SSC Asian Elephant Specialist Group
 - Benson Okita Ouma: Co-Chair, IUCN/SSC African Elephant Specialist Group
 - Fiona Underwood: ETIS Statistician
- ETIS
 - Tom Milliken: Director
- MIKE CCU:
 - Thea Carroll: Coordinator
 - Dave Henson: Programme Officer
 - Mrigesh Kshatriya: Data Scientist
- Sub-regional Support Units:
 - Martha Bechem: Central and West Africa (PACO)
 - Tapera Chimuti: Eastern and Southern Africa (ESARO)
 - SayLin Ong: South East Asia (SEA)

Apologies:

- TAG sub-regional representatives:
 - Emmanuel Hema: West Africa
 - Aster Li Zhang: Southeast Asia
- Global members:
 - William Link
 - Hugo Jachmann – comments on documents submitted in writing
- Co-opted members:
 - Rob Slotow: Co-chair of IUCN/SSC African Specialist Group
- Sub-regional Support Units:
 - Aditya Gangadharan: South Asia

1. Adoption of the agenda

The agenda was amended as follows:

- Amendment to agenda item 20: Agenda item 20 on the “African Elephant Database” was replaced with an item on “Linking the four monitoring systems”
- Items included to be discussed under “Any other Business”:
 - o Incorporating forensic results in the ETIS analysis and trade chain
 - o Update on MIKE support for an African range States meeting.

Decision

- The amended agenda was adopted.

2. Approval of the minutes of the previous meeting

Issues / Discussion

- TAG members noted that a long time had passed since the meeting and that it is therefore a challenge to recall discussions.
- The overall view was that the minutes is comprehensive and cover all the items discussed at the previous meeting.

Decisions

- The minutes of the thirteenth TAG meeting was adopted

3. Progress on action points (MIKE-ETIS TAG13)

Survey standards

Issues / Discussion

- There is a need for a group to review aerial survey standards before additional work is undertaken (based on experience from the Great Elephant Census).
- Inputs from the Asian region should also be considered.
- The dung survey standards also requires a review and there is a need to engage organisations that have been using the standards to identify possible areas of review.

Decisions

- Small contact group (Russell Taylor, Holly Dublin, Chris Thouless, Vivek Menon, Emmanuel Hema) established to take the process of how the survey standards could be reviewed forward. Specific inputs are needed on aspects that require attention.
- The same group will also review dung standards.
- Statistical inputs also needed once issues are defined.
- Vivek Menon will circulate documents and issues identified by the TAG contact group amongst a small working group within the AsESG and report back to the TAG contact group to ensure that inputs from Asia are included.
- Other experts can be consulted as the contact group moves forward to assist in identifying specific issues and means to address these as part of the process.
- Russell Taylor indicated that WWF was trying to secure funding to undertake this work and they could possibly lead process with TAG inputs.
- The MIKE CCU will liaise with Russell Taylor relating to funding for the review.

Stockpile information

Issues / Discussion

- Stockpile information submitted by CITES Parties in compliance with the reporting requirement in Resolution Conf. 10.10 (Rev. CoP17) are being made available to MIKE and ETIS. Unfortunately, as reported in the document to the 70th Standing Committee meeting, not all the reports received from the Parties contained all the information requested in Resolution Conf. 10.10 (Rev. CoP17), and some did not provide the total amount of such stockpiles.
- TAG members do not have access to this information and the Resolution does not allow for this information to be made available to TAG members.

- There is however a need to consider how the information could be used in terms of the analysis done by MIKE or ETIS.
- Although the MESH could be requested to consider whether TAG members should be able to access the stockpile information, there is a need to clarify why it is needed and how it will be used or analysed.

Decisions

- MIKE CCU and ETIS to have a brainstorming session on how stockpile information could be used in informing the analysis relating to the illegal trade chain. A request can then be submitted to the MESH to allow the TAG members to access the information, if appropriate.

Access to detailed MIKE data by TAG members

Issues / Discussion

- TAG members raised concerns about the fact that the data access provisions in Resolution Conf. 10.10 (Rev. CoP17) does not allow them to access detailed data, but that they are required to provide advice relating to the analysis and the interpretation of the data. More detailed information is required to enable the TAG members to fulfill their function.

Decisions

- TAG proposes amendment to Res Conf. 10.10 to include provisions relating to access to detailed data by TAG members to inform technical advice (as was provided previously in the Annex for the MIKE programme). MIKE CCU to incorporate it in the report to CoP.
- In the interim the MIKE CCU should confirm whether third party agreements could be signed or whether aggregated data that includes certain aspects, other than carcass location information, could be made available to TAG members.

4. Outcomes of CITES SC70 meeting

Terms of Reference for a review of the ETIS programme

Issues / Discussion

- TAG to nominate a member to join the MESH representatives that will provide technical oversight for the review of ETIS.
- Tom Milliken indicated that Holly Dublin would be an ideal nominee due to her institutional knowledge of ETIS and CITES processes, but she expressed concerns about what would be required and time it may consume.

Decisions

- MIKE CCU to break down the tasks that the nominated TAG representative will be required to carry out, time requirements, and how the TAG representative could be assisted. Based on that the MIKE CCU will engage the TAG to nominate a representative.

Other relevant matters discussed at SC70

Issues / Discussion

- Formal process is needed to support ETIS buy-in from India rather than personal interventions.

Decisions

- MIKE CCU and ETIS to identify countries with reporting issues for MIKE and ETIS and investigate options for a joint approach to address issues.

5. Proposed amendments to the Terms of Reference of the TAG

Issues / Discussion

- The MIKE mandate in Resolution Conf. 10.10 as well as the MIKE programme have expanded to include capacity building in addition to the monitoring mandate. There are global and sub-regional members on the TAG that could assist in providing advice on these activities, especially capacity building.
- There is a need to take into consideration the capacity of the TAG with regard to additional tasks, especially since they participate in a voluntary capacity.
- In general, the amendments to include advice relating to management/capacity support were supported.
- In general, the roles of the TAG members should remain within the mandate and the activities of the MIKE Programme
- It was recommended that the TAG should be requested to provide technical advice with regards to new phases of the MIKE programme. This will provide an opportunity to check whether the new phases are aligned with the mandate as it relates to technical aspects.

Decisions

- General support for proposed amendments.
- MIKE CCU to submit amendments to the TAG ToR to the next Standing Committee (73rd) for approval.

6. New phases – MIKE Programme

Issues / Discussion

- Need to collaborate with AeESG in developing MIKE Programme in Asia.
- Some concerns raised by the TAG members about the focus of the MIKE programme moving beyond the provisions in Resolution Conf. 10.10 (Rev. CoP17).
- The MIKE CCU indicated that the MIKE programme does assist countries when funding opportunities arise to secure funding for activities that are site based or could contribute to the country's ability to implement the MIKE mandate.
- Support is therefore provided in terms of the implementation of other Resolutions (e.g. stockpile management, forensic sampling, other site based and national level activities with authorities involved in the implementation of the MIKE monitoring mandate).

Decisions

- Document noted.
- MIKE CCU to engage AsESG on funding proposal to support Asia (post 2019)

7. Funding arrangements – ETIS

Issues / Discussion

- Tom Milliken shared information with the TAG members relating to the funding received to implement the recommendations emanating from the 69th Standing Committee. The total amount required has been secured. Belgium, the EU (through the MIKES project, the Netherlands and the USA have made contributions in this regard.
- Concerns were raised about the succession plan for Tom Milliken that will retire at the end of 2019. Tom Milliken confirmed that funds will be secured and that TRAFFIC is giving the matter attention.

Decisions

- Information provided by Tom Milliken noted.

8. Review of MIKE Network (Africa and Asia)

Issues / Discussion

- The TAG members indicated that consultations with range States and especially MIKE sites will need to be part of the process, e.g. development of criteria for selection of sites to include
- There may be a need to review the network every few years to avoid waiting too long, especially if there are areas where there are problems

- When designing monitoring programmes there are different ways in which sites can be included into the analysis. The proposed analysis should also inform the design. It is recommended that a statistician should therefore form part of the process.
- Questions were posed about the importance of the size and area of MIKE sites vs the size of the elephant population and the implications of transboundary populations. This should be considered in the review.
- Recommendations will need to build on existing network (adding and removing sites) and must be practical, feasible, representative, adaptable and provide a basis for scientific robust analysis.
- Political considerations will need to be factored into discussions, and it will be necessary to balance this and scientific rigor.
- The MIKE CCU will have to facilitate the engagements with range States
- The TAG members recommended that the SSUs should prepare a document outlining the situation in their respective regions to inform the process.

Decisions

- Include a statistician in the analyses from the outset to ensure monitoring strategy is appropriate
- Amendments proposed by TAG members were captured in the ToR. The amended ToR to be distributed to TAG members by 12 November 2018.
- TAG members to submit final comments on amended TOR by 16 November 2018
- SSUs to prepare summaries of the main issues in their respective sub-regions to inform the process

9. Challenges relating to interpretation of PIKE – Case study (India)

Issues / Discussion

- The TAG reflected on the concerns that the focus on collection of information relating to illegal killing of elephants has been a challenge in Asia especially due to the lack of continuous presence of SSUs in the region.
- There also has been challenges to secure buy-in due to the perceptions that it is only focused on illegal killing for ivory. New emerging challenges include trade in other parts and derivatives.
- A key challenge in Asia remains to be human elephant conflict and other anthropogenic deaths (train accidents, electrocution)
- Collecting old data records from the original source is very labour intensive and not really practical. This is not supported at this point in time due to the time intensive nature of the activity.
- If disaggregation is going to take place it should take place in Asia and Africa.
- The combination of all anthropogenic causes of death was however not supported.
- It was recommended that potential differentiation in the data to be collected in Asia (different factors impacting illegal killing in Asia) should be considered as part of the MIKE review in Asia.

Decisions

- MIKE CCU to incorporate the consideration of the different causes of elephant deaths in the list of aspects that should be considered in the review and design of the network for Asia.
- Information to be collected in 2018 and disaggregated where feasible, to provide information of impacts of other anthropogenic causes of death for sites in Asia.

10. MIKE database – Current system and progress in developing a database

Issues

- The discrepancies in the data were noted. The TAG indicated that if there are major discrepancies in historical data; the summary data should be used (especially where summary data is higher), but the validation process should first be concluded.
- Some TAG members indicated that they also have some data that could be considered to address possible gaps in the historical data.
- Possible that some confusion is due to validated and un-validated data being submitted in Kenya.

- Two-way flow of information is essential to maintain interest and buy in to the system. The MIKE CCU should continue to prepare and share country reports with the MIKE sites and national focal points.

Decisions

- Data validation process to continue, facilitated by MIKE CCU and SSUs
- TAG members with additional data to provide this to the MIKE CCU
- MIKE CCU to provide an update to the TAG on outstanding issues when validation process has been concluded.
- TAG to provide advise on how to deal with the outstanding issues. The general view was that it should be looked at on a case by case basis and if it could not be resolved that the “fusion table” data should be retained, especially if the figures in it are higher than those from individual carcass records.
- TAG members to share lessons learnt from the development and management of other database systems (AED and ETIS) with the MIKE CCU.

11. Publication of PIKE methodology

Issues / Discussion

- The current MIKE / PIKE methodology was not well documented and the MIKE programme initiated a process to document the method used, including explaining the model and code used.
- There seems to be some challenges with the model used and therefore a need to improve the statistical analysis.
- Although a methodology developed to learn about important covariates and to describe continental trends was published in 2011(Burn et al 2011 PLoS One) and used in COP15 , a different methodology has been used since then.
- The TAG members reflected on the biases affecting PIKE and that the value of PIKE may have different impacts on the populations depending on a variety of factors, e.g. birth rate, other mortality, age structure of the population.
- One key issue is the reference to 0.5 PIKE. At a policy level this is interpreted as the threshold where deaths are equal than births and if it's above the 0.5, it seems to be linked to a decline in populations.
- There are a number of concerns about the interpretation of PIKE and these were captured by the MIKE CCU. A document reflecting the development and interpretation of PIKE will be developed by the MIKE CCU to ensure the interpretation of PIKE is clarified.
- Questions were also asked about the use of unknown deaths and other causes of death when poaching rate and estimates of elephants killed are calculated.

Decisions

- Contact group (Fiona Underwood, EJ Milner-Gulland, William Link) established to work with the MIKE CCU and the statistician on the models for the analysis.
- MIKE CCU to provide TAG with the proposed model for consideration and comments.
- Interpretation of PIKE needs to be reconsidered and more guidance provided on how to interpret it as well as the biases and assumptions, especially in CITES reports.
- Care is needed with regard re-interpretation of 0.5 PIKE as risks undermining confidence in analyses.
- PIKE: TAG members shared concerns about PIKE, including interpretation and the use of PIKE and “natural mortalities”(real natural mortality / other non-illegal deaths) to determine poaching rates and numbers of elephants killed. The MIKE CCU will document the TAG discussions and advice relating to PIKE as well as reports to the SC and CITES to improve the common understanding relating to PIKE and inform the way forward.

12. Review of PIKE methodology

Issues / Discussion

- The TAG members approved of the initiation of an independent review of the PIKE methodology. This includes consideration of option to improve the analysis. A brief outline of this review was provided.
- The review indicates that there are different trends in PIKE for the four sub-regions of Africa. The TAG members indicated that it will remain important to provide a continental trend, even though it is statistically challenges and that the assumptions associated with the continental trend should be explained.

- Fiona Underwood raised concerns about focusing only on estimating PIKE. She outlined the history of PIKE, in particular that the remit of MIKE is to estimate poaching pressure. Because of biases in wildlife patrol data PIKE was developed as first step to estimate poaching pressure and deal with the issues of variable effort. In the longer term the aim was to develop other analytical methods to deal with known PIKE issues, as described in Burn et al (2011) and COP reports. In particular analytical approaches are needed to deal with varying natural mortality and variable probability of detecting carcasses. The latter is the motivation for recording measures of patrol effort.
- Need to consider the difference between true PIKE and observed PIKE.

Decisions

- Contact group established to work with the MIKE CCU and the statistician on the models for the analysis (same contact group as referred to above – Agenda item 11)
- NOTE: The TAG members advised that it remains important to report on the continental trend to the CITES CoP.
- Depending on progress that can be made; the MIKE CCU could proceed with PIKE as is for current report to the CoP. The reviews or major changes may take longer (also reflect that PIKE includes more than ivory related killing).

13. Natural mortality

Issues / Discussion

- There is a need to clarify the use of ‘natural mortality’ or ‘non-illegal killing’ to make sure that there is a common understanding and that it is used correctly in calculations of PIKE and poaching rates.
- TAG13 recommended that an in-depth literature review should be done to assist in addressing the above. This recommendation was still supported by TAG members.
- The further refinement done by Fiona Underwood in terms of a method to integrate information on natural mortality with MIKE data to obtain estimates of poaching pressure was described.
- The systems modelling done by UNEP (systems dynamics) was described. Some concern was raised that this approach will be hard to implement as it’s a dynamic model; and it is possible to do something similar in R (that is easier).
- There could be potential to collaborate with UNEP.

Decisions

- MIKE CCU to appoint a consultant to carry out the literature review. This review process should be informed by the need to address the ‘natural mortality’ bias in PIKE as well as the information needed to explore the opportunities associated with population dynamics modelling.
- The MIKE CCU to further engage Fiona Underwood and the MIKE and ETIS TAG statistician on the proposal presented to the MIKE ETIS TAG on how to incorporate information on natural mortality with PIKE data. MIKE CCU to provide feedback to the MIKE and ETIS TAG relating to the engagements and the proposed way forward.
- The MIKE CCU to collaborate with the UN Environment ecosystems branch on the systems dynamic modelling they are developing to determine whether it could assist the MIKE programme’ stakeholders in terms of modelling needs and visualizing the outcomes of various scenarios at a site level (based on site level demographic parameters such as natural mortality, sex ratio, age structure, inter-calving intervals, primiparity and PIKE levels etc.).

14. Patrol effort and coverage – Proposal

Issues / Discussion

- Previous TAG meetings discussed data to be collected to measure patrol effort and coverage to enable the MIKE programme to address this potential bias.
- Reliable data are however not currently being provided by MIKE sites - even those with computerised systems are not providing information for a variety of reasons
- Some TAG members indicated that increasingly actual patrol effort (patrol days and distance patrolled) is less useful as other techniques are impacting the effectiveness of law enforcement operations (the role of intelligence)
- Other measures to measure effort could include resource allocation for example the cost involved in doing patrols USD/km (or perhaps even catch per unit effort)

- Situation on the ground has changed greatly since the mandate was drafted and agreed on. Private public partnerships are in place; management has been delegated in some protected areas, while others are managed based on co-management agreements. This has an impact on the collection and submission of data.
- The MIKE CCU and SSUs should continue to engage sites and request the submission of effort data. The integration of data relating to patrol effort (effort) should be further explored, but if data is not available, it should be reported as such.
- The SSUs currently use the information relating to patrol effort to “interpret” zero carcass reports. E.g. If there is no information relating to patrol effort, it may be that carcasses were not detected since no patrols took place.
- MIKE CCU to ensure that zero carcasses are reported in the database and this should be reflected in the fusion tables as well.

Decisions

- MIKE CCU to develop a matrix that reflects the law enforcement monitoring systems used by sites as well as an indication of whether data relating to effort collected at the sites are submitted to the MIKE SSUs/CCUs
- MIKE CCU & SSUs to engage sites with computerized systems to obtain information relating to effort that is being recorded (note: some range States are not willing to share data relating to patrol effort even though they are using computerized systems)
- MIKE CCU to engage individual TAG members to provide further guidance on how the information that can be obtained could be used to report on effort and / or address possible biases in the PIKE analysis.
- MIKE CCU to develop a report on the data relating to patrol effort that are being collected and can be accessed by the programme and consult TAG on the findings.
- Continue to follow up with APN regarding results of their study and consider potential implications for analysis
- Note: Information relating to effort is used by SSUs to verify carcass data being submitted, especially when there is a decline in the number of carcasses being reported or no carcasses being reported.

15. Detection probability – Proposal

Issues / Discussion

- Previous TAG meetings discussed the challenges relating to the means to measure and address detection probability, which is one of the potential biases that may affect PIKE.
- The MIKE CCU explored options to address this and proposed conducting work in this regard in collaboration with African Parks Network that is managing eight MIKE sites.
- TAG members proposed that the MIKE CCU and SSUs could select some sites with low to moderate carcass numbers and investigate these in more detail to determine the real method of detection.
- There is a need to engage with statisticians on design of study - group at St. Andrews or William Link may be able to advise on this.

Decisions

- MIKE CCU to consider providing more clarity in training materials on how carcass was ‘detected’ - or first heard about.
- MIKE CCU and SSUs to identify sites where in-depth assessment of carcass records could be done to determine method of detection.
- MIKE CCU to continue to engage forests sites (focal sites) to gather data / information relating to the method of detection
- MIKE CCU will engage the TAG members in their individual capacities to advise on the data / details to be collected at the focal sites.
- More linkages and engagement needed with ‘focal sites’ during MIKES+ to help address data quality issues in the future
- MIKE CCU to consider whether natural mortality information could be used to assist in understanding detection probabilities by comparing predicted natural mortality and detected natural mortality at sites that have detailed information relating to natural mortality

16. Operations of MIKE in Africa and Asia

Africa

Issues / Discussion

- A framework is needed to allow/enable TAG members to engage with SSOs and MIKE CCU on regional issues.
- This will also allow regional members to use their local expertise, which combined with CITES/TAG backing can assist with enquiries (e.g. submission of data).
- Standardisation of reporting by regions to the TAG should be considered for the next meeting. This will make it easier for the TAG members to digest the information and provide advice.
- The TAG representative for Central Africa to continue to assist the SSU to engage DRC.
- SSU and TAG representative to continue to engage Botswana to facilitate the submission of data for 2018 as well as training.

Asia

Issues / Discussion

- Southeast Asia
 - More focus is needed on Asian elephants as its more endangered – small, fragmented populations. Any form of off-take may have a negative impact on the populations.
 - Sites are very poorly chosen — seems very severe in SEA e.g. Borneo, Thailand and Myanmar.
 - If Human Elephant Conflict (HEC) is not being captured; it may be that the incidences take place outside the parks / boundary of the site and are therefore not reported.
 - If any changes are made to data - e.g. reallocation from of HEC from legal to illegal, it should be based on a protocol / standardization process agreed for the region.
- South Asia
 - CITES is a federal commitment but at the state level site management and authorities do not necessarily prioritise these federal commitments
 - More engagement directly with chair of AsESG is needed to help facilitate building government support and even funding
 - MIKE needs a different relationship with India; perhaps only a data provider is needed. A consistent approach is needed - ideally the same person should continue to provide support (continuity is important).
 - In India especially equipment is not needed, but support could be targeted at analytical issues.

17. Influencing and informing decision-makers, wildlife crime enforcement and demand-side strategies and interventions

Due to time constraints, this item was not discussed. Tom Milliken provided some information relating to a survey that has been completed. General results of the survey indicate that demand for ivory still remains relatively high among responders despite closure of domestic markets. Despite major policy developments significant demand for wildlife products remains at levels high enough to have a strong impact. The results will be made available to the TAG members as soon as TRAFFIC authorizes the release of the document. A workshop on demand reduction is taking place in November 2018 and one of the aspects that will be discussed is a standardized system to monitoring the impact of demand reduction activities.

18. Refinements to the ETIS methodology

Issues / Discussion

- Fiona Underwood presented refinements made to the ETIS methodology since the last TAG. Some of these addressed issues raised by Singapore and China. The refinements included (1) the development of a Trade Chain Index to describe a country's role in the trade chain. This was developed and then tested in the current analysis to see if it should be included in the seizure rate to deal with bias in the Law Enforcement Ratio. The TAG were shown

- the impact of including this variable on the seizure rate (2) An approach for investigating the sensitivity of the hierarchical cluster analysis to variability in the model outputs. (3) Dealing with multiple countries of origin
- The ETIS team clarified that the ETIS report would describe relevant changes to the ETIS methodology and that it would indicate where these addressed issues raised by Singapore and China. They also discussed the implications of these refinements on the trends analysis.
 - Additional information may also be helpful to clarify definitions, especially ‘country of origin’ since these terms may have different interpretations in a CITES context.

Decisions

- ETIS to include in its report to CoP18 the methodological refinements made and to highlight where these address issues raised by China and Singapore.
- ETIS to consider the terminology used and whether it is possible to use terms that will not cause confusion / misinterpretation (“origin”) or provide information that assists in clarifying the terms used.

19. 18th Meeting of the Conference of Parties to CITES

19.1 MIKE report to CoP18

Issues / Discussion

- The CoP18 document will include sections based on the objectives of MIKE as contained in Resolution Conf. 10.10 (Rev. CoP17). Since there is no data for 2018, the analysis will be done based on the 2017 data that were already discussed at the 70th Standing Committee meeting.
- The timeline to finalise the report is very tight, and consultations will happen during an extremely busy time of year (end of November / December 2018).
- Further consultations on the Addendum (to provide the analysis for the 2018 data) will be ready February / March 2019.
- The consultation on the report to CoP18 will take place in two parts – the first focused on the objectives other than the level and trends in illegal killing and the second on the analysis, based on the new improved model to be used.

Decisions

- TAG members to note the timeframe for the finalisation of the report and that consultation will take place late November and early December 2018. MIKE CCU to distribute the timeline for the development of the documents to CITES CoP18.

19.2 ETIS report to CoP18

Issues / Discussion

- Tom Milliken presented the outcomes of the ETIS analysis and the proposed categorization of countries based on the cluster analysis.
- The TAG discussed the categorization and how the number of clusters was decided.
- The TAG discussed the implications of refining the ETIS methodology before the ETIS review is carried out. Tom and Fiona clarified that these were not major changes but refinements to the existing methodology. ETIS always strives to improve its methodology, as seen in previous COPs, to provide more robust and precise estimates of the illegal ivory trade. The refinements arise because of known issues or feedback from the TAG, the Parties or other informed groups. The ETIS team felt it was important to include improvements when they existed.
- Concerns were raised about the changes made to the analysis, especially with the review to be done.
- ETIS report must be distributed to affected countries prior to submission and therefore the timelines are also tight.

Decisions

- ETIS report includes consultation with countries and therefore the timelines for consultation with TAG members will be done in November 2018. The first draft report will be distributed by 16 November 2018.
- ETIS to provide clarification relating to the categorisation, especially Category C and the criteria used for the category. ETIS to also provide clarification relating to the red line in the cluster analysis

- As indicated under item 18, ETIS should include in the report the methodological changes made as well as the implications of these changes on the analysis and results. ETIS to consider explaining the changes in the methodology in an Information document to the CoP.
- Clarification on country categorisation and the red line in the cluster analysis to be provided in the report

20. Linking the four monitoring systems

Issues / Discussion

- Due to the complex nature of the process and the need to consider how these systems could be integrated; it was proposed to start with ETIS, MIKE and the AED. A small contact group will work on a concept that will be presented to the TAG members for consideration. The group will consider the work by Fiona Underwood that was presented at the last TAG meeting (TAG13 Doc 11 Annex 1).
- This can be done as part of the brainstorming exercise relating to the possible integration of stockpile information. This will however only be done in 2019 after all CITES CoP18 documents have been finalized.

Decisions

- MIKE CCU and ETIS to engage contact group to develop concept for consideration by the TAG (focus on MIKE, ETIS and AED).
- Contact group: MIKE CCU, ETIS Director, Fiona Underwood, E.J. Milner-Gulland and William Link.

21. MIKE Implementation Monitoring System (MIMS)

Issues / Discussion

- TAG members indicated that testing / assessment is an important element of training materials and should be included (i.e. before and after training)
- Feedback should be 'two-way' and instant feedback to managers is very important - even in a simple format
- Such tools are essential for institutional memory and will provide a good source of information for any new staff members.
- The MIKE CCU and SSUs to explore the possibility to also include other materials such as 3D printed models of skulls etc in the training.

Decisions

- MIKE CCU to consider including evaluation and assessment as part of the training
- MIKE CCU to finalise the review and could engage individual TAG member

22. Actions to be implemented and establishment of task teams

The MIKE Coordinator indicated that the action list will be distributed on 12 November 2018.

23. Any other business

Forensic analysis – source of ivory

Issues / Discussion

- Complications exist relating to the identification of the geographic source of ivory based on forensic analysis being done. Countries have been questioning the accuracy and whether it is possible to correctly identify a specific location based on the analysis being done. TAG members indicated that there are locational errors associated with the site assignment
- There may be a need to reconsider how this information is used in the ETIS analysis, because there may be an over estimation of the precision involved. Clarification will be required to inform the use of the forensic analysis in the ETIS analysis.
- Traditional approaches such as investigations should not be overlooked and can also inform where ivory originates from; the focus should not only be on the new techniques.

Decisions

- ETIS to consider whether a workshop should take place to discuss the forensic analysis of ivory to determine origin as well as the use of the results in the analysis

Africa range States meetings

Issues / Discussion

- The MIKE CCU is not planning an African range States meeting as did joint sub-regional meetings
- Holly Dublin indicated that the African Elephant Action Plan needs to be revised and it would be ideal if UNEP would lead as AEF Secretariat.

Decisions

MIKE CCU to engage UNEP to determine whether an African range States meeting will be organised to discuss among others, the review of the African Elephant Action Plan.

24. Date and venue for the next TAG meeting

Issues / Discussion

- Ideally this meeting will take place on an annual basis to ensure it can deliver on its mandate.
- It is proposed that the next meeting takes place in October 2019 at a venue to be confirmed.

Decisions

- Action list to be circulated by Monday (12 November 2018) for feedback and comments and finalization.
- MIKE CCU to propose dates for the next meeting (October 2019)
- The MIKE CCU to engage individual members of the TAG relating to their term of appointment

The meeting was closed by the Chair.