## KAZA AHSWG workplan - prioritised strategic actions for identified animal health issues

| Pri | ority legend  | <u>Time</u> | <u>frame</u>        |
|-----|---|-------------|---------------------|
| С   | Completed   |             |                     |
| 0   | Ongoing   |             | Priority for Year-1 |
| U   | Greatest urgency in terms of animal health & conservation outcomes in KAZA  |             |                     |
| L   | Easy to accomplish (low hanging fruit) within 1-year with limited resources |             | Consider thereafter |
| В   | Both Urgent AND Low hanging fruit   |             |                     |

| WP<br>No. | Topic                                 | Objective  | Activity  | Responsibility   | Location /<br>Scope  | Timeline                    | Details  | Priority |
|-----------|---------------------------------------|--|---|--|--|-----------------------------|--|----------|
| 1.1       | Animal<br>Production &<br>Livelihoods | Facilitate<br>sustainable<br>integrated land<br>use & livelihoods<br>in KAZA | Prepare updated regional Guidelines for CBT beef production   | AHEAD  | SADC region  | 2017-2018                   | Revised to incorporate 2015 changes to OIE Terrestrial Animal Health Code that allow for quarantine. <a href="http://www.wcs-ahead.org/kaza/181114-guidelines-for-implementing-cbt-final.pdf">http://www.wcs-ahead.org/kaza/181114-guidelines-for-implementing-cbt-final.pdf</a> | С        |
| 1.2       | Animal<br>Production &<br>Livelihoods | Facilitate<br>sustainable<br>integrated land<br>use & livelihoods<br>in KAZA | Revise guidelines for<br>CBT beef based on<br>SADC Livestock<br>Technical Committee<br>(LTC) input for<br>proposed adoption as<br>SADC document | AHEAD  | Presented to<br>SADC LTC (Jul<br>& Dec 2018)                     | Jul 2018 - Jun<br>2019      | Revised following SADC LTC feedback; approved by SADC Council of Ministers as regional document (June 2019)  | С        |
| 1.3       | Animal<br>Production &<br>Livelihoods | Facilitate<br>sustainable<br>integrated land<br>use & livelihoods<br>in KAZA | Identify priority sites in<br>KAZA Wildlife<br>Dispersal Areas<br>(WDAs) for CBT pilot<br>projects  | Н4Н  | Multiple sites   | 2018 - to date              | Field site assessment with eventual feasibility studies  | 0        |
| 1.4       | Animal<br>Production &<br>Livelihoods | Facilitate<br>sustainable<br>integrated land<br>use & livelihoods<br>in KAZA | Initiate CBT pilot work<br>at multiple sites<br>identified in WDAs (3<br>countries to date)   | Governmental &<br>community partners;<br>H4H; BPCT;<br>CLAWS; ORI;<br>CIRAD; VFWT;<br>PPF; CI; AHEAD | (BW) Habu &<br>Eretsha, (ZM)<br>Similaha, (ZW)<br>Victoria Falls | 2018 - to date<br>(ongoing) | Various stages from feasibility<br>studies to early implementation at<br>production level (e.g.<br>herding/kraaling pilots)  | 0        |

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| 1.5       | Animal<br>Production &<br>Livelihoods | Facilitate<br>sustainable<br>integrated land<br>use & livelihoods<br>in KAZA | Conduct CBT beef<br>market opportunities<br>analysis for<br>Ngamiland, BW   | AHEAD; WWF   | Ngamiland, BW  | 2017  | Stakeholder consultation & desktop study. http://www.wcs-ahead.org/kaza/171003 rpt final marketopportunitiesforcbtbeef ngamil and.pdf  | С        |
| 1.6       | Animal<br>Production &<br>Livelihoods | Facilitate<br>sustainable<br>integrated land<br>use & livelihoods<br>in KAZA | Assess CBT beef<br>market opportunities<br>for other KAZA sites   |  |  | Longer term<br>activity to<br>enable trade                                  | Stakeholder consultation & desktop   |          |
| 1.7       | Animal<br>Production &<br>Livelihoods | Facilitate<br>sustainable<br>integrated land<br>use & livelihoods<br>in KAZA | Conduct detailed gap<br>analysis on<br>implementation of CBT<br>beef in Ngamiland,<br>BW  | AHEAD consortium in partnership with DVS, BW   | Ngamiland, BW  | Nov 2017 - Jul<br>2019  | Stakeholder consultation & field site visits; capacity-building/training; workshops. Draft report completed; DVS HQ validation (June 2019); larger stakeholder validation workshop (July 2019)   | 0        |
| 1.8       | Animal<br>Production &<br>Livelihoods | Facilitate<br>sustainable<br>integrated land<br>use & livelihoods<br>in KAZA | Conduct analysis of regional abattoir capacity  | TBD  |  |   | Analysis to consider potential for more efficient use of resources within KAZA   | L        |
| 1.9       | Animal<br>Production &<br>Livelihoods | Improve<br>understanding &<br>ability to mitigate<br>risk                    | Collate data & apply<br>rainfall biomass model<br>to help guide risk<br>mitigation/future<br>management<br>strategies                                 | DVS - Afonso & Machado (AN); Mbeha & Mafonko (BW); Amushila (NA); Katampi (ZM); Hanyire (ZW); Taylor (WWF) | Rainfall station<br>data (as many<br>as possible);<br>mortality data<br>available for<br>KAZA<br>component;<br>modelling | Jul 2019 -Jun<br>2020; ongoing<br>with progress<br>report by end<br>of Yr-1 | Collection of data (yr-1); apply Coe, Cumming & Philipson model (1976) - Yr-2 (Taylor). Rainfall data & statistics on animal mortality, especially livestock (deaths due to disease, predation, environmental/underlying nutrition, fence & road kills). [Editor's note: consider FEWS NET famine early warming system for possibly useful tools.] | В        |
| 1.10      | Animal<br>Production &<br>Livelihoods |  | Develop veterinary<br>Standard Operating<br>Procedures (SOPs) for<br>dealing with illegally<br>transported<br>livestock/wildlife &<br>stray livestock |  |  |   | In partnership with law enforcement agencies   | U        |

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|-----------|---------------------------------------|--|---|---|--|-------------------------|--|----------|
| 1.11      | Animal<br>Production &<br>Livelihoods | Facilitate<br>sustainable<br>integrated land<br>use & livelihoods<br>in KAZA                             | Assess current Livestock Identification Systems to determine if harmonization would be beneficial |   |  |                         | As part of assessment, evaluate whether establishing country ID systems should be more of a priority (to enable trade) |          |
| 1.12      | Animal<br>Production &<br>Livelihoods | Facilitate<br>sustainable<br>integrated land<br>use & livelihoods<br>in KAZA                             | Assess market opportunities for wildlife & wildlife products                                      |   |  |                         |  |          |
| 2.1       | Surveillance                          | Improve decision<br>making by making<br>surveillance data<br>more comparable<br>across KAZA<br>landscape | Collation of existing SOPs  | DVS - Afonso &<br>Machado (AN);<br>Mbeha & Machado<br>(BW); Amushila<br>(NA); Katampi (ZM);<br>Hanyire (ZW)                         | Desktop  | Jul 1 - Sep 30          | PDF documents, send to AHSWG<br>SC   | В        |
| 2.2       | Surveillance                          | Improve decision<br>making by making<br>surveillance data<br>more comparable<br>across KAZA<br>landscape | Collation of recent & planned surveillance operations within KAZA                                 | DVS - Afonso & Machado + Cuando- Cubango province vet officer (AN); Mbeha & Machado (BW); Amushila (NA); Katampi (ZM); Hanyire (ZW) | Desktop. Data<br>from 2015<br>onwards<br>(passive &<br>active OPs) | Jul 1 - Sep 30,<br>2019 | List of surveillance operations & where  | В        |
| 2.3       | Surveillance                          | Improve decision<br>making by making<br>surveillance data<br>more comparable<br>across KAZA<br>landscape | Assess existing SOPs to determine if updates/harmonization would increase efficiency              |   |  |                         |  | U        |
| 2.4       | Surveillance                          | Improve decision making by making surveillance data more comparable across KAZA landscape                | Based on assessment,<br>provide support to<br>those countries<br>requiring SOP<br>development     |   |  |                         | Through inter-country support  | U        |

| WP<br>No. | Topic                      | Objective   | Activity  | Responsibility                             | Location /<br>Scope                                      | Timeline               | Details   | Priority |
|-----------|----------------------------|---|---|--|--|------------------------|---|----------|
| 2.5       | Surveillance               |   | Promote more rigorous passive surveillance  |  | Objectives (activities are baby steps towards objective) |                        | Through greater observation, reporting & sharing of data  | U        |
| 2.6       | Surveillance               |   | Training of field officers in passive surveillance                                  |  | Harmonization of SOPs                                    |                        | To help recognize, report & sample for disease (feedback v important to roll up into risk mitigation strategy | U        |
| 2.7       | Surveillance               |   | Undertake joint targeted surveillance operations                                    |  |  |                        | Process to include development of MoU / SOPs for shared operations  |          |
| 2.8       | Surveillance               |   | Develop good practice guidelines  |  |  |                        | Long term aspiration - to enable cost-effective & focused surveillance  |          |
| 3.1       | Disease risk assessment    | Coordinate & spearhead prioritized AHSWG activities | Produce Terms of<br>Reference (ToRs) for<br>a proposed KAZA-<br>wide epidemiologist | AHEAD; VFWT<br>(Foggin); Chaitezvi<br>(ZW) | Start process to produce ToRs & source funds             | Jul 2019 - Jun<br>2020 | Email & Skype meetings b/w team; desktop  | L        |
| 3.2       | Disease risk assessment    | Improve ability to mitigate disease risk            | Desktop survey of epidemiological capacity within KAZA                              | TBD  | TBD  | Likely 2020-<br>2021   | Progress envisioned once KAZA-<br>wide epidemiologist position filled<br>&/or Yr-2 activity                   | L        |
| 3.3       | Disease risk assessment    | Improve ability to mitigate disease risk            | Determine high/low<br>risk areas and<br>resource gaps                               |  |  |                        | Focus on prioritized diseases. ID perception & resource disparities between countries                         | U        |
| 3.4       | Disease risk assessment    | Improve ability to mitigate disease risk            | Conduct further research into maintenance of FMD virus in cattle                    |  |  |                        | [Also incl. under cross-cutting]  | U        |
| 3.5       | Disease risk assessment    | Improve ability to mitigate disease risk            | Assess vaccination and other control measures                                       |  |  |                        | ID disparities between countries & develop MoUs / SOPs  |          |
| 3.6       | Disease risk<br>assessment | Improve ability to mitigate disease risk            | Develop research questions  |  |  |                        | Including, for example, interface issues of relevant to KAZA  |          |
| 3.7       | Disease risk assessment    | Improve ability to mitigate disease risk            | Facilitate research through AHSWG   |  |  |                        |   |          |

| WP<br>No. | Topic       | Objective   | Activity  | Responsibility  | Location /<br>Scope   | Timeline  | Details  | Priority |
|-----------|-------------|---|---|---|---|---|--|----------|
| 4.1       | Diagnostics | Improved speed & accuracy of diagnoses to improve disease management                            | Survey of diagnostic<br>capacity within KAZA<br>(including listing labs<br>that are accredited for<br>certain tests)  | Team to source info:<br>Foggin (VFWT);<br>Hanyire (ZW);<br>Mbeha (BW). Nyika<br>to provide info from<br>LTC (via Manyire) | Initially desktop<br>study; ZW<br>chairing LTC<br>lab sub-<br>committee<br>(indicated some<br>info already<br>there)              | 2019  | Progress envisioned within one year. Conduct survey for disease risk assessment capacity, with view of more efficient use of resources within KAZA | L        |
| 4.2       | Diagnostics | Improved speed & accuracy of diagnoses to improve disease management                            | Promote use of regional (KAZA) facilities/labs  | TBD   | TBD   | Likely 2020-<br>2021  | Progress envisioned once survey of diagnostic lab capacity completed. To increase efficiency esp. related to wildlife diseases                     | В        |
| 4.3       | Diagnostics | Improved speed & accuracy of diagnostics / analysis to improve disease management / forensic ID | Develop veterinary<br>SOPs for gross<br>examination & next<br>course of action for<br>confiscated<br>consignments of<br>animal products                       | DVS - Afonso & Machado (AN); Mbeha & Mafonko (BW); Amushila (NA); Katampi (ZM); Hanyire (ZW)                              | Examination of<br>legislation -<br>both wildlife &<br>veterinary<br>health statutes<br>(2019); start to<br>develop SOPs<br>(2020) | Oct 1 - Dec<br>15, 2019<br>(gather<br>Acts/regulation<br>s) | Examine with view to developing SOPs & share w/ group (2019); develop SOPs (2020); developed in partnership with law enforcement agencies.         | В        |
| 4.4       | Diagnostics | Improved speed & accuracy of diagnostics / analysis to improve disease management / forensic ID | Develop agreements<br>for sample transfer<br>(including for<br>diagnostic, research &<br>genetics<br>investigations)  | Foggin (VFWT);<br>Matandiko (BW);<br>Katampi (ZM)   | Start process<br>for developing<br>blanket permit<br>for KAZA<br>countries for<br>specific tests                                  |   | Initially could be based on bi-lateral arrangement vs KAZA-wide for all five PSs   | U        |
| 4.5       | Diagnostics | Improved speed & accuracy of diagnostics / analysis to improve disease management / forensic ID | AHSWG members to<br>get their own countries<br>to support CITES<br>CoP18 Doc.56<br>resolution dealing with<br>movement of<br>diagnostic & forensic<br>samples | Individual countries<br>with top-down &<br>bottom-up<br>approaches  | 1. Chair for<br>AHSWG<br>2. Conservation<br>WG<br>3. Country<br>delegation to<br>CITES CoP18<br>4. Country<br>representatives     | ASAP (before<br>Sep 2019)                                   | Through written communication to the Directors cc KAZA focal persons   | В        |

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|-----------|----------------|---|--|--|--|--|---|----------|
| 4.6       | Diagnostics    | Improved speed & accuracy of diagnostics / analysis to improve disease management / forensic ID | Investigate possibility of a KAZA-wide CITES permit to deal with movement of diagnostic & forensic samples                 |  |  |  | First step in Yr-1 to support CITES<br>COP resolution); if successful, do<br>not need a KAZA wide CITES<br>permit | U        |
| 4.7       | Diagnostics    | Improved efficiency of diagnoses to improve disease management                                  | Improve efficiency of<br>diagnosis of diseases<br>of immediate public<br>health concern                                    |  |  |  | To include anthrax, rabies, poisoning   | U        |
| 4.8       | Diagnostics    | Improved speed & accuracy of analysis to improve forensic ID                                    | Enhance forensic capacity in existing labs including training of personnel   |  |  |  | To include training & equipment / infrastructure  | U        |
| 4.9       | Diagnostics    |   | Assess importance<br>and provide diagnosis<br>of other (emerging)<br>zoonoses (long term &<br>ongoing)                     |  |  |  |   |          |
| 4.10      | Diagnostics    | Improved speed & accuracy of diagnostics / analysis to improve disease management / forensic ID | Work towards official<br>accreditation for select<br>lab facilities (for select<br>diseases/forensic<br>tests) within KAZA |  |  |  |   |          |
| 5.1       | Communications | Enable more<br>effective<br>transboundary<br>collaboration                                      | Set up WhatsApp<br>group for field level<br>operatives   | One administrator<br>per country: Afonso<br>(AN); Nkgowe (BW);<br>Amushila (NA);<br>Katampi (ZM);<br>Foggin (ZW) | Include<br>representatives<br>from PS (DVS;<br>wildlife &<br>private sector) | Initiated 13<br>Jun 2019; full<br>set of names<br>to be provide<br>by Jun 30 | Develop rules of communication  | 0        |

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|-----------|-----------------|--|--|---|--|--|---|----------|
| 5.2       | Communications  | Enable more<br>effective<br>transboundary<br>collaboration                       | Institute veterinary<br>officer meetings<br>(local/field-level)  | Representatives from PS   | Veterinary<br>officers<br>stationed within<br>KAZA                             | Use existing mechanisms wherever possible e.g. TBNRM forum | Initial step: brief &/or write to superiors in PSs  | В        |
| 5.3       | Communications  | Enable more<br>effective One<br>Health<br>collaboration                          | Improve coordination with human health agencies  |   |  |  |   |          |
| 5.4       | Communications  | Enable more<br>effective<br>transboundary<br>collaboration                       | Develop (monthly)<br>report templates &<br>submit & disseminate<br>within AHSWG  |   |  |  | To include: diagnosis, vaccinations, causes of mortality and safety issues. Consider development of phone app - dissemination via phone & email to core group |          |
| 5.5       | Communications  | Enable more effective transboundary collaboration                                | Evaluate existing databases & determine feasibility of establishing shared database  |   |  |  | Consider filters to WAHID database (look at USGS national wildlife health centre database as e.g.)  |          |
| 6.1       | Disease control | Ensure fencing decisions are based on sound cross-sectoral cost/benefit analysis | Determine<br>mechanisms in place<br>in each PS for cross-<br>sectoral engagement<br>on fencing issues<br>(start w/ key<br>government<br>authorities) | Individual countries  | DVS<br>representatives:<br>Matandiko<br>(BW); Amashila<br>(NA); Tapiwa<br>(ZW) | Aug 31, 2019   | Consultation with relevant stakeholders and written communication; specific activities to be determined thereafter  | В        |
| 6.2       | Disease control | Ensure fencing decisions are based on sound cross-sectoral cost/benefit analysis | Re-establish Botswana multi- sectoral national fencing committee to review fencing   | BW - co-chaired by<br>DVS & DWNP;<br>support provided by<br>AHEAD | Botswana   | 2018 - to date<br>(ongoing)                                | Regular meetings of Committee; input from technical experts on specific issues, as required   | 0        |

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| 6.3       | Disease control             | Ensure fencing decisions are based on sound cross-sectoral cost/benefit analysis | Conduct assessment<br>of current & planned<br>veterinary fences<br>affecting KAZA's<br>WDAs          | AHEAD & WWF             | Start process to source funds                                     | Attempt to source funds: Yr-1 | Actual assessment possibly done at individual country level? | U        |
| 6.4       | Disease control             | Ensure fencing decisions are based on sound cross-sectoral cost/benefit analysis | Consider fencing in<br>BW land-use planning  |                         |   |                               | Especially with regard to NG 1-4                             |          |
| 6.5       | Disease control             | Ensure fencing decisions are based on sound cross-sectoral cost/benefit analysis | Develop holistic<br>KAZA-wide fencing<br>strategy as part of<br>broader land use<br>planning process |                         |   |                               |  |          |
| 6.6       | Disease control             | Improve KAZA-<br>wide disease<br>management                                      | Coordinate shared emergency response   | TBD                     |   |                               |  | 0        |
| 6.7       | Disease control             | Improve KAZA-<br>wide disease<br>management                                      | Coordination of vaccination campaigns (activities to be synchronized)                                | TBD                     |   |                               | Develop MoUs; also part of Communication                     | 0        |
| 6.8       | Disease control             | Improve KAZA-<br>wide disease<br>management                                      | Institute control of diseases of immediate concern   |                         |   |                               | To consider anthrax, rabies - urgent for some countries      | U        |
| 6.9       | Disease control             | Improve KAZA-<br>wide disease<br>management                                      | Synchronize disease control plans & develop KAZA plan  |                         |   |                               | To base on risk assessment & ID of high risk areas           |          |
| 7.1       | Cross cutting -<br>Research | Improve regional<br>knowledge base<br>for science-based<br>decision making       | Identify veterinary research priorities  | Steering Committee (SC) | AHEAD to<br>share<br>preliminary list<br>with SC for<br>expansion | July 2019 -<br>June 2020      | Desktop  | L        |

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|-----------|-----------------------------|--|--|----------------|---------------------|----------|--|----------|
| 7.2       | Cross cutting -<br>Research | Improve regional<br>knowledge base<br>for science-based<br>decision making | Conduct further research on maintenance of FMD virus in cattle |                |                     |          | Cross-cutting but also considered under diagnostics  | U        |
| 7.3       | Cross cutting -<br>Research | Improve KAZA-<br>wide animal<br>health capacity                            | Training of field officers & community animal health officers  |                |                     |          | Capacity-building to focus on recognizing, reporting and sampling for disease (surveillance & diagnostics) | U        |

Top Tier Diseases for KAZA Anthrax Foot and mouth disease (FMD) Rabies Trypanosomiasis (Angola)
Bovine tuberculosis (BTB)
Contagious bovine pleuropneumonia (CBPP)

## Tier 2 Diseases for KAZA Bovine brucellosis

African swine fever (ASF) Canine distemper virus (CDV)