

Question No	Survey Question	Analysis	Recommendation	States	Actions	Compliant date
2	Has the State established and implemented a process to mitigate against an increase or potential increase in wildlife strike hazard due to land use development likely to attract wildlife around an aerodrome?	It has been found that some countries in the region have not established or put in place a process to check the increase and mitigate Wildlife Strike Hazards at their airfields with regards to land use and development that is likely to attract wildlife around the aerodrome.	<ol style="list-style-type: none"> 1. Establish a committee that will evaluate the land use and developments around respective aerodromes. 2. Define the role and responsibilities of the committee, for e.g. – stakeholder from the land management, building association, town planning and council, airport operator and suppliers. 3. Engage with city councils and respective builder associations to suggest suitable measures of forming a plan like regular cleaning, and awareness programs for all stakeholders to understand what the attractants are which cause the potential increase of wildlife. 	Brunei, Cambodia, Myanmar, Laos, India, Thailand	Form a committee with relevant stakeholders.	
3	Has the State developed industry guidance material to assist aerodrome operators to develop a wildlife (birds and animals) strike hazard study or assessment for each of their aerodromes?	The responses to the survey indicate some countries lack industry guidance material to develop the necessary study or wildlife hazard assessment for their respective aerodromes.	<ol style="list-style-type: none"> 1. Action be taken to train, provide assistance to aerodrome wildlife management teams that need to understand wildlife activity patterns and carry out timely assessments in order to prepare suitable wildlife management action plans to help mitigate wildlife strike risks at aerodromes. 2. States to ensure that all the airport accountable personnel and the WHM decision making chain shall undergo periodic and or refresher training to understand wildlife hazard management, as also the necessity of following a plan to conduct a study of wildlife in and around the airport at regular intervals. 3. All training must be documented to ensure right personnel attendance. 4. It is important for Operators to regularly organise wildlife training programmes for Pilots and other relevant stakeholders. 5. It is recommended that ATC have a visual chart of high risk species based on the wildlife study and patterns. 6. Establish a time frame for the regular wildlife surveys for e.g have a wildlife study every 2 years. 7. States to ensure seasonal wildlife assessment be done by the airport operator and the data collected be analysed to identify pattern changes and variations in wildlife behaviour. 	Cambodia, Cook Islands, Pakistan, Sri Lanka, Thailand	1. Training - Appropriate States resource who checks airports audit must understand the complexity of WHM, requires continuity of states resources with airport operators WHM team	
4	Has the State promulgated regulations to require a wildlife (birds and animals) strike hazard study or assessment for each of its aerodromes?	Most of the countries have promulgated regulations required to carry out a study of wildlife strike hazard for each of their aerodromes.	<ol style="list-style-type: none"> 1. Must have a study or assessment that shall promulgate the required regulation to carry out the study of wildlife strike hazards for each of its aerodromes. 2. All wildlife strike species must be identified, and if visual identification is not possible, DNA analysis must be conducted by using museum labs or DNA analysis test kits 3. Must have knowledge of wildlife within their environment, understand behaviour and patterns of wildlife in order to mitigate the risks of wildlife collisions. 	Cook Islands, Pakistan	1. Survey requirements	

7	Does the State use the IBIS database to report wildlife strikes?	Most of the countries follow the procedure of reporting and forwarding wildlife strike reports to ICAO.	<p>1. Shall establish a database of wildlife strikes which shall contain the relevant wildlife strike information. This database should be easily accessible by the states WHM stakeholders for analysis. It is recommended that a smart application be used instead of paper based forms and excel spreadsheets.</p> <p>2. Shall ensure that respective country CAA shall collect all the aerodromes wildlife strike data of their respective aerodromes as and when they occur and forward the reports to ICAO on each occurrence.</p> <p>3. Conduct regular analysis of the wildlife strike data with appropriate recommendations. Maintain a regular reporting process.</p> <p>4. It is recommended states be given a login to view the strike data analysis and monitoring activity analysis regularly, if the airport operator is using a smart wildlife application. It is highly recommended, States and airport Operators use technology based wildlife management applications.</p>	Brunei, Cambodia, Cook Islands, China, Fiji, Myanmar, Laos	State WHM representative must be very aware of WHM practices and attend asic WHM training.	
8	Has the State established a National wildlife strike hazards management committee forum including all relevant government organizations to discuss issues related to wildlife hazards on or in the vicinity of an aerodrome(s)?	It is observed that most states have not established a National Wildlife Strike Hazard committee or Forum of different stakeholders including governmental organisations to discuss various issues with respect to wildlife strike hazards at and around aerodromes.	<p>1. Shall establish a national Wildlife Strike Hazard Committee Forum (WSHC) which shall comprise all concerned airline, airport air side safety stakeholders, ATC, WHM representatives, concerned State governmental organisations and national wildlife associations.</p> <p>2. WSHC should meet every quarter to carry out an assessment of the environment both within and surrounding (13km) range around the aerodrome. The Governmental organisations and agencies shall be sensitised from time to time by the aerodrome operator regarding the importance and dangers of wildlife strikes and the necessity of a unified effort in the management of the environment surrounding aerodromes.</p> <p>3. Establish a Calendar of regular working group meetings with all the above stakeholders and maintain minutes and document actions to track the progress of the actions and activities undertaken.</p> <p>4. Draft a terms of Reference which is to be followed at each meeting</p> <p>Terms of Reference Template</p> <p>4.1 Title</p> <p>4.2. Time and Frequency</p> <p>4.3. Objectives and Description</p> <p>4.4. Reporting Line</p> <p>4.5. Chairperson</p> <p>4.6. Secretariat</p> <p>4.7. Forum Composition</p> <p>4.8. Members roles and responsibilities</p>	Bhutan, Philippines, Pakistan, Myanmar, China, Vietnam, Cook Islands, Sri Lanka, Laos,		
9	Has the State established a national wildlife strike hazard reduction action plan/program to reduce the hazard of wildlife strikes?	he responses to the survey shows that some countries have not established a National Wildlife strike hazard reduction action program or action plan.	<p>1. The WHSC shall work out a wildlife strike hazard reduction program or action plan based on the environmental conditions of each aerodrome.</p> <p>2. The wildlife patterns analysis and reports must be clear and shared with all stakeholders with details of action plans</p> <p>3. The Wildlife Strike hazard reduction program or action plan must not be stereotyped with one aerodrome working it out to apply to all the other aerodromes of the state. It should be noted that no two aerodromes in a state will have the identical habitat and environment to the last detail. Each airport must work towards implementing an electronic wildlife monitoring system and stay away from paper based forms and excel spreadsheets, all wildlife activity monitoring information must be readily available on smartphones or tablets or desktops electronically.</p> <p>4. Each aerodrome shall workout its own wildlife strike hazard reduction action plan or program.</p>	Bhutan, Brunei, Cambodia, China, Cook Islands, Myanmar, Thailand, Indonesia, Laos, Vietnam		

12	Is the wildlife hazard management plan, a part of the aerodrome certification/licensing requirements?	The responses to the survey shows that in most countries wildlife hazard management plan is not a part of aerodrome certification/ licensing requirement.	1. It is recommended that States that have not made wildlife hazard management plan a part of aerodrome certification/ licensing requirement must incorporate it into the aerodrome certification/ licensing requirement and ensure that the wildlife hazard management plan is implemented in the true spirit. 2. States must be responsible to establish a Wildlife Strike Hazard Committee Forum (WSHC) 3. States must validate the wildlife hazard action plans with airport operators.	Brunei, Cambodia, Indonesia, Philippines, Thailand		
14	Has the aerodrome operator developed a habitat management programme of the airfield?	Responses indicate that most state airports have developed a habitat management programme of the airfield	1. While most states have developed a habitat management program, each aerodrome shall maintain an electronic event manager to facilitate analysis of activities carried out and be in a position to carry out futuristic habitat management based on the observations made from previous data. Habitat planning is a passive measure towards wildlife habitat management and will contribute to mitigate the risks associated with potential wildlife strikes. 2. The State shall incorporate the verification and validation of the habitat management plans in the annual checklist and monitor the habitat management plans implementation for each aerodrome.	Bhutan, Brunei, Cambodia, China, Laos, Myanmar, Nepal		
15	Does the aerodrome operator have or include a process for mitigation measures and their follow-up in the evaluation of the wildlife hazard management programme?	The responses indicate that a few countries do not have a process evaluation and mitigation measures incorporated into their wildlife management program	1. It is recommended that States that do not have process evaluation and mitigation measures should immediately incorporate the same into their wildlife management program 2. States should seek advice or help from ICAO or associations such as WBA (World Birdstrike Association) to build processes for mitigation measures and evaluate their existing WHMP or the effectiveness.	Bhutan, Brunei, Cambodia, Laos		
16	Do land management processes exist in areas surrounding aerodromes to reduce attractiveness of the environment to hazardous wildlife including food (vegetation, agriculture, waste management), water and shelter (open areas, forest, buildings)?	The responses received indicate that a few countries lack a proper land management process for areas surrounding airports to mitigate the attractiveness of the environment to hazardous wildlife.	Refer to Recommendations for Question 8	Bhutan, Brunei, Cambodia, China, Cook Islands, Indonesia, Laos, Myanmar, Nepal, Philippines, Thailand		
17	Does the aerodrome operator participate in a national wildlife hazard reduction program?	The responses show that most states do not have a national wildlife hazard reduction program.	1. Shall create a National Wildlife Hazard Reduction Program and ensure its implementation. 2. Periodic (preferably 6 monthly /Annual) inspections on the correct implementation of the wildlife hazard reduction program should be made at each aerodrome by the state authorities. 3. Relevant validation must be agreed with the Airport operators	Australia, Brunei, Cook Islands, Bangladesh, Cambodia, China, Indonesia, India, Nepal, Myanmar, Pakistan, Sri Lanka, Laos, Thailand, Vietnam		
18	Has any wildlife assessment survey of airports been conducted with the help of external agencies and ornithologists?	Most states have carried out an assessment survey of wildlife at their respective airports with the help of external agencies and ornithologists.	1. Those airports that have not conducted an assessment survey of wildlife at their respective airports are required to do so at the earliest. 2. All states shall ensure that each of their aerodromes shall have an annual wildlife survey conducted by external agencies and or ornithologists and obtain a certificate of completion from their respective airports. 3. States shall incorporate survey requirements and assessments into their checklist for inspection of aerodromes.	Bhutan, Bangladesh, Brunei, China, Myanmar, Laos, Vietnam		

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19	Does the aerodrome operator use particular zoning of aerodrome surroundings in WHM Program?	While the responses show that some states have used zoning of surroundings of airports to identify general locations most have not created any clear demarcations.	1. Airports must be able to identify the zones and areas in and around the airfield and must follow the ICAO format of zoning and naming of all surrounding areas 2. Identification of surroundings is vital when monitoring wildlife activity to identify the attractants to wildlife in the particular area	Bhutan, Brunei, Bangladesh, Cambodia, China, India, Laos, Nepal, Myanmar, Pakistan, Vietnam		
20	Does the aerodrome operator demonstrate a safety risk-based approach for wildlife hazard management?	Responses indicate that most of the states have aerodrome safety risk based approaches to wildlife hazard management. However a few states have responded in the negative.	1. All airport operator WHM teams must adopt ICAOs Risk assessment as per doc 9859. 2. A detailed Safety management plan must be adopted and followed 3. Regular checks of the SMS plan with regulators is to be established 4. Timing of regular checks must be established well ahead	Brunei, Bangladesh, Cambodia, Myanmar, Laos, India		
21	Do aerodrome operators record environmental issues affecting wildlife strike hazards?	Responses indicate that most of the state's record environmental issues affecting wildlife strike hazards.	1. An airport should undertake a review of the attractants on airfield 2. Those attractants must be monitored. 3. The precise nature of the attractant should be identified and a risk management plan developed to eliminate or reduce the risk 4. Where necessary, support from a professional bird/wildlife strike prevention specialist should be sought. 5. Documentary evidence of this process, its implementation and outcomes should be readily available 6. Habitat management and activities must be managed using technology preferably a smart application.	Bhutan, Bangladesh, Brunei, Myanmar, nepal		
22	Has the aerodrome operator employed competent manpower for wildlife management at the airport?	Most states have responded in the affirmative. However a few states need to take cognisance of the issue.	1. A qualified trained and equipped bird/wildlife controller should be present on the airfield for at least 15 minutes prior to any aircraft departure or arrival. Thus, if aircraft are landing or taking off at intervals of less than 15 minutes there should be continuous presence on the airfield throughout daylight hours. The controller shall not be required to undertake any duties other than bird control during this time. Note that for aerodromes with infrequent aircraft movements, 15 minutes may not be long enough to disperse all hazardous birds/wildlife from the vicinity of the runway. In this case the controller should be deployed sufficiently in advance of the aircraft movement to allow full dispersal to be achieved 2. At night, active runways and taxiways should be checked for the presence of birds/wildlife at regular intervals and dispersal action taken as needed. 3. WLC resources must undergo refresher training from time to time to be kept updated with all regulations and on-going and new activities. 4. The detailed role and responsibilities description of the activities must be available	Bangladesh, Bhutan, Brunei, Cambodia, China		
23	Has an airfield environment management committee been established at the aerodrome and are meetings conducted regularly?	Most states have responded in the affirmative. However a few states need to take cognisance of the issue.	1. A wildlife working group must be established with members of the senior management team at the airport and should be responsible for implementation of bird control programmes, including both habitat management and active and passive bird control. 2. The working group shall meet every quarter to discuss the observations and actions being taken to mitigate wildlife activity 3. The working group members will have access to wildlife control reports daily or weekly basis. 4. A technology based reporting module is essential, with drill down functionality to enable report users to analyse and understand any dependencies toward wildlife management 5. Agenda and action plans arising from the meetings must be documented with timelines.	Bangladesh, Bhutan, Brunei, China, Indonesia, Laos		

24	Does the aerodrome operator review and communicate wildlife strike hazards to airlines and relevant stakeholders?	Although many states have confirmed their action of communicating wildlife strike hazards to airlines and relevant stakeholders there seems to be a lack of communication standards	<ol style="list-style-type: none"> 1. Communication between the various stakeholder groups and organisations on an on-going basis from the airport is essential if good bird/wildlife control standards are to be achieved. 2. Airfield Operations, Grounds Maintenance, Air Traffic Control, Airport Fire Service, Airport Planners, Airlines etc. all have a role to play in identifying and correcting problems that may occur. Airport management shall ensure that a mechanism is available (e.g. an airport wildlife strike prevention committee) which enables these organisations to participate in the bird/wildlife hazard management process and ensure communications between the various agencies. 3. Define a standard reporting template which can be followed by for States, Airport operators and other various stakeholder groups. 	Brunei, Cambodia, Pakistan, Philippines		
25	Does the wildlife management program specify how often an aerodrome operator should inspect in and around the aerodrome to identify the sources of wildlife/bird attraction?	Majority of the states responded that there is no specific time schedule is being followed by the aerodrome operators to inspect around aerodromes to identify the sources of wildlife attractants.	<ol style="list-style-type: none"> 1. Activity monitoring should be done at least twice dawn and dusk, however if the aerodrome has several attractants, bird counts and wildlife surveys must be done 3 to 4 times or at regular intervals. 2. Airport bird/wildlife controllers should record the following at least every 30 minutes (if air traffic is sufficiently infrequent that bird patrols are more than 30 minutes apart, an entry should be made for each patrol carried out). <ol style="list-style-type: none"> 2.1 areas of the airport patrolled, such as zone or chainage numbers 2.2 Bird numbers, location and species of birds/wildlife seen, 2.3 action taken to disperse the birds/wildlife, 2.4 results of the action taken 2.5 Planned actions based on observations 2.6 Risk assessment plan 3. More general information such as the name of the bird controller on duty, time on and off duty, weather conditions etc should be recorded at the start of a duty period. 4. All logged information must be technology (preferably) based and easily accessed 	Bhutan, Brunei, Cambodia, Bangladesh, Indonesia, Laos, Philippines		
26	Is inspection being carried out to monitor illegal slaughtering within the ten kilo-meter radius of the aerodrome?	Responses indicate that most airports carry out inspections to monitor slaughtering houses within the 10 Km radius with a few airports who have reported that they have no inspections.	<ol style="list-style-type: none"> 1. Airports should conduct an inventory of bird/wildlife attracting sites within the ICAO defined 13 km range, paying particular attention to sites close to the airfield and the approach and departure corridors. 2. A basic risk assessment should be carried out to determine whether the movement patterns of birds/wildlife attracted to these sites means that they cause, or may cause, a risk to air traffic. If this is the case, options for wildlife management at the site(s) concerned should be developed and a more detailed risk assessment performed to determine if it is possible and/or cost effective to implement management processes at the site(s) concerned. For e.g taking actions on a water body or fixing a fence, and covering open drains etc. 3. This process should be repeated annually to identify new sites or changes in the risk levels produced by existing sites. 	Australia, Bhutan, Brunei, Bangladesh, China, Cook Islands, Laos, Nepal, Myanmar, Sri Lanka, Vietnam		
27	Is there a process for liaison with government agencies and quasi-government agencies to ensure the aerodrome is aware of development's that may contribute to creating additional wildlife hazards? For e.g. wildlife sanctuaries etc	Most states have indicated that there is a process in place for liaisoning with Government / quasi Government agencies to ensure that there is awareness of developments that may contribute to creating additional wildlife hazards.	<ol style="list-style-type: none"> 1. States that do not have a system in place must conduct annual meetings with all stakeholders and respective governmental and quasi-governmental agencies so that everyone concerned is aware of the developments and necessary steps taken to ensure mitigation of wildlife strike risks. 2. Refer to Question 8 	Bhutan, Bangladesh, Cambodia, China, Cook islands, Vietnam		
28	Does the aerodrome operator submit an annual report on Wildlife hazard management to CAA/DGCA?	Most responses indicate there is no submission of an annual report on Wildlife Hazard Management to their respective CAA/ DGCA.	<ol style="list-style-type: none"> 1. A standard report template format must be established to make it easier for states to follow the report 2. Annual Report timeline should be established 3. All airports from the country or region must follow the standard format 	Australia, Bangladesh, Bhutan, Brunei, Cambodia, Nepal, Indonesia, India, Laos, Philippines, Hong Kong, Singapore		
29	Has the aerodrome operator documented safety risk assessment processes using strike data for each species?	Most responses have been positive to say that the aerodrome operator documented safety risk assessment processes using strike data for each species.	<ol style="list-style-type: none"> 1. Risk assessment processes validation and actions plans 2. Action plans must be clear and address the risk at hand 3. Action plans must be monitored and be verified and validated by authorised regulatory authorities. 	Bhutan, Brunei, Cambodia, Bangladesh, Indonesia, India, Laos, Mongolia, Nepal, Philippines, Sri Lanka,		

30	Does the aerodrome operator provide information on the presence of species, number of individuals and their biology?	Some Operators have indicated that they do not provide this information.	<ol style="list-style-type: none"> 1. Monitoring wildlife/bird activity is of utmost importance 2. A standard activity monitoring form be established. 3. Smart technology must be adopted, a few wildlife applications are available at reasonable prices, the technology application must be able to be used on the smartphone or tablet while on the airfield with easy way of reporting activity and counts 4. Operators (WCT) must understand the patterns of wildlife activity, attractants so they are able to monitor the habitat management and wildlife 5. All information collected must be collected in a standard 	Bangladesh, Brunei, Bhutan, India, Laos, Nepal		
31	Does the aerodrome operator use a DNA based species identification procedure?	Most states have responded saying they do not use DNA for the species identification.	<ol style="list-style-type: none"> 1. DNA analysis and identification is an important aspect of wildlife management 2. Museums will need to be engaged in this process 3. Associations and Museums must be in the wildlife management stakeholder working group and committees. 	Bhutan, Brunei, Bangladesh, China, Cook Islands, Fiji, Indonesia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Vietnam		
32	Does the aerodrome operator conduct species identification procedures by trained personnel to include feathers, animal remains, DNA analysis, etc.	Most states have responded saying they have trained personnel that identify the species through feathers, animal remains.	<ol style="list-style-type: none"> 1. Procuring DNA analysis kits will be very beneficial 2. Use of private / locally available resources to be encouraged 	Bhutan, Bangladesh, Brunei, Cambodia, China, Cook Islands, Laos, Pakistan, Myanmar, Vietnam		
34	Does the aerodrome operator have wildlife management related Safety management systems (SMS) in place?	Most state operators have indicated that they have a SMS system in place.	<ol style="list-style-type: none"> 1. SMS plans must follow the ICAO framework - and detail components of SMS <ol style="list-style-type: none"> 1.1 Safety Policy and Objectives 1.2. Safety risk management 	Bangladesh, Bhutan, Brunei, Cambodia, China, Myanmar, Pakistan		
35	Can aerodrome operators calculate the probability of wildlife strike based on activity and number of flights?	Most states have indicated their inability to calculate the strike probability based on the wildlife activity and flight movements.	<ol style="list-style-type: none"> 1. Probability analysis based on wildlife strikes, wildlife activity and flight movements analysis is extremely beneficial 2. To explore and adopt a smart application to enable probability analysis 3. Fore thought and analysis will provide better management of risk wildlife strikes 4. Reduces the risk of wildlife strikes 	Bangladesh, Bhutan, Brunei, Cambodia, China, Indonesia, Laos, Myanmar, Nepal, Philippines, Hong Kong, Singapore		
36	Are wildlife strike hazard assessments being carried out by specialists?	The responses from most of the states has been that they utilise specialists to carry out the wildlife strike assessments.	<ol style="list-style-type: none"> 1. Wildlife Hazard Assessments must be carried out by trained professionals who understand a range of activities and situations, who understands the ecology and wildlife behaviour and someone who likes to be outdoors. 2. Observe wildlife in areas and what it appears to be attracted to 3. Observe wildlife such as feeding, nesting, resting, foraging for carcasses or insects 4. Observer habitat conditions such as grass levels, trees, fences and FOD 	Bangladesh, Brunei, Bhutan, Cambodia, China, Fiji, Laos, Nepal, Pakistan		
37	Does the aerodrome operator manage wildlife strike hazards in accordance with safety risk assessments conducted by a relevant expert?	Majority of the states have indicated that they do not have the relevant expert to manage wildlife strike hazards in accordance with safety risk assessments.	<ol style="list-style-type: none"> 1. The Risk assessment should involve a trained wildlife specialist who is familiar with ecology and wildlife management and behaviour 2. The root cause of wildlife hazards must be identified for each species, audit of surrounding areas to determine how the different habitats may aid the species and eliminating them or providing a work around to reduce the attractant in the habitat 	Bangladesh, Bhutan, Brunei, Cambodia, China, Laos, Nepal, Myanmar, Pakistan, Philippines, Vietnam		
38	Has an assessment of wildlife strike hazard outside the aerodrome been undertaken?	Majority of the states have indicated that they have not undertaken an assessment of wildlife strike hazards outside of the aerodrome.	<ol style="list-style-type: none"> 1. Wildlife assessment outside the aerodrome is highly recommended. 2. Understand the kind of environment outside the aerodrome 3. Ensure that open drains and sewage, garbage dumps must be covered by working along with local councils 4. Ensure open butcheries must operate with care and as much as possible educate them on the risk of attracting wildlife 5. Wildlife teams must be fully aware of all environmental issues and how they can contribute to the sustainability policy at airports 	Bangladesh, Bhutan, Brunei, Cambodia, China, Cook Islands, Indonesia, India, Laos, Myanmar, Nepal, Pakistan, Philippines		

39	Does the aerodrome operator have a procedure in place to identify source of wildlife attractants in the vicinity of aerodrome such as slaughterhouses, Slum clusters, garbage dump, illegal abattoirs, unauthorized piggeries, dairy farms, de-skinning in the open area, water stagnation, landfill, ponds, drainages, agriculture, stream, forest shrub areas and abandoned structures etc.?	Most of the responses indicate that their state aerodromes have a procedure in place to identify the source of wildlife attractants in the vicinity of aerodrome such as slaughterhouses, Slum clusters, garbage dump, illegal abattoirs, unauthorized piggeries, dairy farms, de-skinning in the open area, water stagnation, landfill, ponds, drainages, agriculture, stream, forest shrub areas and abandoned structures etc.	1. Ensure that the wildlife control team works together with local councils and authorities to close or reduce the attractants. 2. Sensitise the local administration and government actors about the risks of a wildlife strike and involve the concerned authorities in meetings.	Bangladesh, Bhutan, Brunei, China, Indonesia, Laos, Myanmar		
42	Are ecological measures implemented to limit or reduce wildlife attractiveness at the airport and in the vicinity?	Half the states have responded saying they do not have ecological measures implemented to limit or reduce wildlife attractiveness at the airport and in the vicinity.	1. Reducing the wildlife population in the Habitat in and around airfield must be a high priority 2. Reducing the presence of wildlife in aircrafts flight paths can be achieved by habitat management, dispersal methods or removal of hazardous wildlife.	Bangladesh, Brunei, Bhutan, China, Myanmar, Cambodia, Indonesia, Pakistan		
44	Does a process exist at the aerodrome to trap hazardous wildlife for distant release?	Most of the states have indicated that they do not have a process at the aerodrome to trap hazardous wildlife for distant release.	1. It might not be feasible to change the habitat for wildlife behaviour, in such cases removal of wildlife maybe the only option 2. This will involve trapping and relocating wildlife, airport operators must be compliant with regulations and carry out removals as humane as possible 3. In some instances, coordinate with animal care and rescue authorities to carry out the removal.	Australia, Bangladesh, Bhutan, Brunei, Cambodia, Laos, Pakistan, Philippines, South Korea, Vietnam		
45	Does the aerodrome operator use any professional rescue groups in wildlife trapping and distant release?	A majority of the states have responded positively to the question and have stated that the aerodrome operators use professional rescue groups in wildlife trapping and distant release.	Compliance with all regulations regarding wildlife species must be a priority	Australia, Bangladesh, Bhutan, Brunei, China, Laos, Mongolia, Myanmar, Pakistan, Philippines, South Korea, Vietnam		
46	Does the aerodrome operator conduct pest management on the airfield and use chemicals for minimizing big insect (e.g. bird food species) activities and small mammals (e.g. rodents) activities?	The responses indicate that most states aerodromes conduct pest management on the airfield and use chemicals for minimizing big insect (e.g. bird food species) activities and small mammals (e.g. rodents) activities	1. Pesticides and Chemical repellents might be required to reduce attractants such as insects and small mammals 2. Use of Poisons and environmental pollutants must be avoided at all times	Bangladesh, Bhutan, Brunei, Cambodia, China, Laos, Myanmar, Philippine, South Korea, Vietnam		
49	Does the aerodrome operator avoid or limit the habitat for rodents and snakes which attract predatory birds and is there a record maintained?	The responses indicate that most states aerodromes have measures in place to limit the habitat for rodents and snakes which attract predatory birds and also maintain a record for the same.	1. Vegetation should be considered that is unattractive to wildlife such as earthworms, insects which attract rodents and create a food chain. 2. Habitat and slope of ground managed to prevent water stagnation	Bangladesh, Brunei, Bhutan, cambodia, China, Cook Islands, Laos, Myanmar, Sri Lanka		
50	Does the aerodrome operator work with local authorities to ensure that areas outside the aerodrome perimeter do not pose an undue wildlife strike hazard to aircrafts?	The responses indicate that most states' aerodromes have been in contact with local authorities to ensure that areas outside the aerodrome perimeter do not pose an undue wildlife strike hazard to aircrafts.	1. It is highly recommended that wildlife hazard management team work with local authorities 2. Local authorities must be part of the stakeholder group 3. WLCT must educate local authorities on the risk of potential wildlife strikes and loss	Brunei, Bhtan, Myanmar, China, Cambodia, Laos		
51	Have public awareness programs been adopted by the aerodrome operator using print media and social media to bring awareness about wildlife strike hazard?	The responses indicate that most states' aerodromes have public awareness programs using print media and social media to bring awareness about wildlife strike hazards.	Awareness programs must be adopted to create understanding of the risk of wildlife strikes and subsequent damages	Australia, Bhutan, Brunei, Cambodia, Chia, Laos, Myanmar		

52	Does the aerodrome operator maintain a record of all wildlife activities?	The responses indicate that most states' aerodromes maintain a record of all wildlife activities.	<p>1. Keeping records of all activity related to wildlife hazard management is fundamental to the WHM program. Data is required in order to be able to assess the effectiveness of the WHM program and for continuous improvement. There is an increased tendency towards airlines and insurers to pursue legal actions to recover costs of wildlife strike damage from airports at which they occur. It is important that airports record wildlife control actions in order to demonstrate that they have an adequate functional WHM program. Therefore it is important to follow the recommendations below:</p> <p>1.1 Records need to include time, location and nature of</p> <p>1.1.1. Each patrol or inspection taken</p> <p>1.1.2. Observation of condition of habitat</p> <p>1.1.3. Observation of vegetation</p> <p>1.1.4. Wildlife species sightings with details of activity</p> <p>1.1.5. Interventions which mitigate the activity</p> <p>1.1.6. Outcome of the intervention</p> <p>1.1.7. Response of wildlife and effectiveness of hazard elimination</p> <p>1.1.8. Wildlife sightings by pilots, airlines and ground staff to be easily reported</p> <p>1.1.9. All monitoring must be conducted using technology like a smart wildlife application</p> <p>1.1.10. Paper forms and spreadsheets must not be used for reporting activity.</p>	Brunei, Bhutan, Cambodia		
55	Does the aerodrome operator have a procedure to report confirmed or unconfirmed wildlife strikes to the regulatory authority?	The responses indicate that most states' aerodromes report all unconfirmed wildlife strikes to the regulatory authority.	All confirmed and unconfirmed wildlife strikes must be recorded and reported to relevant authorities	Bangladesh, brunei, Bhutan, Cambodia		
56	Are wildlife control unit (WCU) personnel equipped with proven knowledge through education or training courses on wildlife identification?	About 50% have indicated that their WCU personnel are not adequately trained on wildlife identification	<p>1. Aerodromes must adopt a targeted WHM training program which supports the role and responsibilities of all resources towards wildlife management</p> <p>2. A blended learning approach must be adopted which includes E-learning, face to face, theory and practical training</p> <p>3. Theoretical and E-learning Training must include</p> <p>3.1. Aerodrome Overview and Procedures</p> <p>3.2. ICAO requirements</p> <p>3.3. State standards</p> <p>3.4. Environmental regulations</p> <p>3.5. SMS</p> <p>3.6. Work, Health and Safety overview</p> <p>3.7. Accident and incident reporting and investigation (part of SMS)</p> <p>3.8. Regular refresher training</p> <p>4. Specific Wildlife Training</p> <p>4.1. Habitat and wildlife programs</p> <p>4.2. Equipment training and procedural use of equipment</p> <p>4.3. Wildlife application software training</p> <p>4.4. Reporting and analysis to draw information for continuous improvement</p> <p>4.5. Regular refresher training</p>	Bangladesh, Brunei, Bhutan, China, Cambodia, Myanmar, Philippines, Vietnam		
59	Does the wildlife log contain actions taken to disperse wildlife and results of these actions?	Responses indicate that most states wildlife log contain actions taken to disperse wildlife and results of these actions	<p>1. Actions and interventions must be logged with details of observations</p> <p>2. Observations drawn must drive all future actions</p>	Bangladesh, Bhutan, China, Myanmar, Laos, India, Sri Lanka, Pakistan, Philippines		
60	Does the aerodrome operator have a wildlife dispersal report to monitor wildlife dispersal patterns?	Responses indicate that most of the state aerodromes do not have a wildlife dispersal report to monitor wildlife dispersal patterns.	<p>1. A wildlife dispersal report is vital in wildlife management</p> <p>2. Understanding the species behaviour and plotting the pattern of dispersal is extremely beneficial and has high rates of success in managing the species behaviour</p>	Bangladesh, Brunei, Bhutan, Cambodia, Indonesia, India, Laos, Philippines, Hong Kong		

61	Does the aerodrome operator have live GPS activity reporting?	All the states barring one have responded stating they do not have a live GPS activity reporting system	In the current environment where we can get easy access to technology we must be able to adopt technology It is recommended that airports where possible must adopt smart applications like a live GPS activity system	Bangladesh, Bhytan, Brunei, Cambodia, Indonesia, Pakistan, Philippines, Hong Kong, South Korea, Myanmar, China, Vietnam, Cook Islands, Sri Lanka, Laos, India		
62	Is the wildlife log completed at regular intervals by competent WCU personnel?	Responses indicate that only half the states have their wildlife log completed at regular intervals by competent WCU personnel	1. All airports must ensure they employ appropriate resources with right attitude and aptitude to be competent in being a wildlife resource 2. Wildlife activity monitoring and logging must be done at regular intervals which is to be agreed with management and regulator dependent on flight movements and wildlife presence	Bangladesh, Brunei, Bhutan, China, Cambodia, Myanmar, Philippines, India		
63	Does the aerodrome operator use technology to record wildlife activity?	The responses indicate that the majority of the states do not use technology while recording wildlife activity.	Data is the most vital asset, usability of smart technology like smart applications are highly recommended to plan future actions for wildlife hazard management	Australia, Bangladesh, Brunei, Bhutan, Cambodia, China, Indonesia, India, Laos, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Vietnam		
65	Does the aerodrome operator use technology to study wildlife activity patterns?	esponses indicate that most state airport do not use technology to study wildlife activity patterns.	1. Use of smart wildlife applications will help reduce wildlife strikes, better understanding of habitat to implement appropriate forms of repellents 2. Technology enable better capture of historical data, with real time analysis of wildlife and attractants 3. Understanding wildlife patterns, with accurate interventions 4. Technology helps provide stream of real time actionable insights to pilots and airport operators to enhance airspace safety and reduce risk of potential wildlife strikes	Bangladesh, Bhutan, Brunei, Cambodia, China, Cook Islands, Indonesia, India, Laos, Mangolia, Myanmar, Nepal, Pakistan, Philippines, Vietnam		
66	Does the aerodrome operator maintain a dashboard of wildlife activity/pyrotechnics used?	The responses indicate that the majority of the states do not have a dashboard to read off wildlife activity / Pyrotechnics used.	1. Use of easy to read dashboards is extremely helpful 2. Intelligent analysis of recorded data will enable to plan and forecast future use of pyrotechnics for e.g which species respond to certain interventions such as pyrotechnics	Bangladesh, Bhutan, Brunei, Cambodia, China, Cook Islands, Indonesia, India, Nepal, Pakistan, Philippines, Vietnam		
67	Can aerodrome operators calculate the probability of wildlife strike based on activity and number of flights?	Most states have indicated their inability to calculate the strike probability based on the wildlife activity and flight movements.	1. Probability analysis based on wildlife strikes, wildlife activity and flight movements analysis is extremely beneficial 2. Explore and adopt a smart application to enable probability analysis 3. Fore thought and analysis will provide better management of risk wildlife strikes 4. Reduce the risk of wildlife strikes	Bangladesh, Bhutan, Brunei, Cambodia, Cook Islands, Indonesia, Laos, Nepal, Pakistan, Philippines		
68	Has the aerodrome operator established a system and process for reporting, recording, retrieving the data and analysing the wildlife strikes and wildlife strike hazard reports?	Responses show that a majority of states aerodrome operators have not established a system and process for reporting, recording, retrieving the data and analysing the wildlife strikes and wildlife strike hazard reports.	1. Establishing a system to monitor, collect and analyse wildlife and Habitat is most vital in successful wildlife management. 2. Use of actionable data will aid in decision making 3. Develop sustainable best practices 4. Understanding how to use interventions such as deploying repellent devices, pyrotechnic and other resources with a positive outcome	Bangladesh, Bhutan, Brunei, Cambodia, Philippines		
69	Have aerodrome operators developed mitigation steps in response to outcomes of the wildlife hazard analysis conducted?	Responses show that a majority of states aerodrome operators have not developed mitigation steps in response to outcomes of the wildlife hazard analysis conducted.	This seems to be questionable if operators have adopted a wildlife hazard management program and a Safety management system, operators must have detailed action plans in response to the outcomes and manage risks with suitable appropriate mitigation plans	Bangladesh, Bhutan, Brunei, Cambodia, Nepal, Laos, Philippines		
70	Is wildlife strike data made available to assist other aerodromes in assessing potential new risks, trends and mitigation methods?	Responses indicate that a majority of the state's wildlife strike data is not made available to assist other aerodromes in assessing potential new risks, trends and mitigation methods.	1. Establishing a WHM working group 2. Sharing of knowledge and practices must be easily available 3. Delegates and participants must be approachable and responsive 4. Cut out unnecessary protocols	Australia, Bangladesh, Bhutan, Brunei, Cambodia, Cook Islands, Indonesia, India, Mongolia, Nepal, Sri Lanka		

71	Has the aerodrome operator provided formal training to all personnel prior to initial engagement as wildlife controllers?	Responses indicate that a majority of the state's aerodrome operators have not provided formal training to all personnel prior to initial engagement as wildlife controllers.	1. All aerodromes management must have detailed training plan Objectives 2. Ensure training plan meets all international and National standards 3. Ensure local Habitat, ecology and wildlife is covered in training 4. Ensure software application training is included 5. Provide refresher training	Bangladesh, Bhutan, Brunei, Cambodia, Laos, Nepal, Pakistan, Philippines, Myanmar, China, Vietnam		
72	Is the induction and refresher training of staff engaged in wildlife control activities carried out regularly?	Responses indicate that a majority of the state's airports do not conduct either induction or refresher training for staff engaged in wildlife control activities on a regular basis.	Refer to Question 71	Bangladesh, Bhutan, Brunei, Cambodia, Nepal, Pakistan, Philippines, Indonesia, Laos, Myanmar, China, Vietnam		
73	Is the training commensurate with the specific wildlife hazard and size and complexity of the aerodrome operation?	Responses indicate that a majority of the state's airports training is not commensurate with the specific wildlife hazard and size and complexity of the aerodrome operations.	Refer to Question 71	Bangladesh, Bhutan, Brunei, Cambodia, Nepal, Pakistan, Philippines, Indonesia, Laos, Myanmar, China, Vietnam		
74	Is the training fully documented and records retained and available for inspection?	Responses indicate that a majority of the state's airports training is not fully documented and records are not retained and available for inspection.	1. Aerodromes must maintain documented training records 2. Maintain reference training manuals which are easily accessible 3. Manage refresher training and new resources training	Bangladesh, Bhutan, Brunei, Cambodia, Pakistan, Philippines, Myanmar, China, Vietnam		
75	Is the training provided by qualified aerodrome wildlife control personnel or specialists with proven experience in this field?	Responses indicate that a majority of the state's airports do not provide training by qualified aerodrome wildlife control personnel or specialists with proven experience in this field.	Training must be provided by qualified personnel such as ICAO, States regulators, and associations such as World Birdstrike associations	Bangladesh, Bhutan, Brunei, Cambodia, Pakistan, Philippines, Myanmar, China, Vietnam		
76	Is feedback considered, and included where relevant and appropriate, in a process of continuous improvement?	Responses indicate that a majority of the state's airports do not have a system of taking and considering feed for continuous improvement.	1. Aerodromes must be able to adopt advised best practices 2. Aerodromes must consider adopting technology for continuous improvement, as in all industries automating many manual processes must be adopted for best outcomes for wildlife management	Bangladesh, Bhutan, Brunei, Cambodia, China, India, Myanmar, Pakistan, Philippines		