

INTERNATIONAL CIVIL AVIATION ORGANIZATION



FINAL REPORT

**FOURTH MEETING OF THE ASIA/PACIFIC WILDLIFE HAZARD MANAGEMENT
WORKING GROUP (AP-WHM WG/4)**

VIDEO TELECONFERENCE, 27 TO 28 APRIL 2022

The views expressed in this Report should be taken as those
of the Meeting and not the Organization

Approved by the Meeting and published by the
ICAO Asia and Pacific Office, Bangkok

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1. Introduction

1.1 The Fourth Meeting of the Asia/Pacific Wildlife Hazard Management Working Group (AP-WHM WG/4) was held as a video teleconference from 27 to 28 April 2022.

2. Attendance

2.1 The Meeting was attended by 138 participants from 16 Member States, Association of Asia Pacific Airlines (AAPA), Airports Council International (ACI), International Air Transport Association (IATA), International Federation of Air Line Pilots' Associations (IFALPA), World Birdstrike Association (WBA) and ICAO.

2.2 The List of Participants is placed at **Attachment A** to this Report.

3. Opening of the meeting

3.1 Mr. Deo Chandra Lal Karn, Chairperson of AP-WHM/WG, welcomed the participants and delivered his opening remarks.

4. Officers and Secretariat

4.1 Mr. Deo Chandra Lal Karn, Chairperson of AP-WHM/WG, presided over the meeting. Dr. Punya Raj Shakya, Regional Officer/AGA, ICAO Asia and Pacific Office, was the Secretary of the Meeting.

5. Working Arrangements, Language and Documentation

5.1 The working language of the meeting was English inclusive of all documentation and this report. There were 7 Working Papers, 2 Information Papers, 2 Presentations and 1 Flimsy considered by the Meeting. A List of Papers and Presentation is included at **Attachment B** to this Report.

6. Conclusions and Decisions

Draft Conclusions, Draft Decisions and Decisions of AP-WHM/WG – Definition

6.1 The AP-WHM/WG recorded its actions in the form of Draft Conclusions, Draft Decisions and Decisions within the following definitions:

- a) **Draft Conclusions** deal with matters that, according to APANPIRG Terms of Reference, require the attention of States, or action by the ICAO in accordance with established procedures;
- b) **Draft Decisions** deal with the matters of concern only to APANPIRG and its contributory bodies; and
- c) **Decisions** of AP-WHM/WG relate solely to matters dealing with the internal working arrangements of the AP-WHM/WG.

7. Terms of Reference of AP-WHM WG

7.1 The second amendment to the Terms of Reference of AP-WHM/WG, approved by the Fifth Meeting of the Aerodrome Operations and Planning Sub Group (AOP/SG/5) (video teleconference from 29 June to 2 July 2021) includes inter alia the following:

**TERMS OF REFERENCE
WILDLIFE HAZARD MANAGEMENT WORKING GROUP (WHM SWG)**

Objective:

To assist States to establish a National Wildlife Hazard Management Committee and an Aerodrome Wildlife Hazard Management Programme.

Scope of works:

To meet the above objectives, the Working Group shall carry out the following tasks:

- 1) Develop a model TOR for National Wildlife Hazard Management Committee;
- 2) Monitor the establishment of a National Wildlife Hazard Management Committee by the States.
- 3) Assist in conducting workshop/seminar on Global and Regional Guidance on WHM;
- 4) Develop Asia Pacific Regional Guidance on Aerodrome Wildlife Hazard Management Programme, as needed;
- 5) Share the best practices on the measures adopted by member States/Administrations to prevent wildlife strike hazards at or in the vicinity of aerodromes;
- 6) Develop a performance measurement metrics to evaluate the effectiveness of the implementation of the Aerodrome Wildlife Hazard Management Programme by the aerodrome operator; and
- 7) Be consistent with ICAO Annex 14, Volume I – Aerodrome Design and Operations, PANS-Aerodromes (Doc 9981), Doc 9137 Airport Services Manual, Part 3 – Wildlife Hazard Management, ICAO Bird Strike Information System (Doc 9332) and other requirements where applicable.
- 8) Analysis of the regional problems/issues in wildlife hazard management fields.
- 9) To support States with limited resources (human and financial) to enhance their capacity in Wildlife Hazard Management through workshops and technical assistance, as needed.

Composition:

The Working Group would be composed of subject matter experts nominated by APAC States / Administrations and International Organization satisfying the criteria:

- (1) Minimum 3 years of work experience in CAA Aerodrome Regulatory Department or in International Organizations or Aerodrome Operations at international airports in wildlife hazard management field;

- (2) Familiar with Annex 14 and related guidance materials; and
- (3) The nominated expert will continue to be a member for a minimum of three consecutive years.

States in other ICAO regions and industry partners with experience in wildlife hazard management may also be invited to participate in the Working Group.

Conduct of the work and timeframe:

As far as practicable, the work would be carried out through electronic correspondences and web-conferences. Minimum face-to-face meetings would be planned.

Time frame:

The Working Group would complete its work by September 2023.

8. List of Draft Conclusions, Draft Decisions and Decisions:

Draft Conclusion AP-WHM/WG/4-1: State Action Plan for Establishment and Implementation of WHMP - Generic Template			
That, Asia/Pacific States are urged to:		Expected impact:	
<ul style="list-style-type: none"> Develop “State Action Plan for Establishment and Implementation of WHMP” in accordance with the generic template in Appendix A to the Report of AP-WHM/WG/4 assigning State responsible entities and targeted implementation dates (milestones); and Commence to execute the State Action Plan the latest from Q1 2023 and in accordance with the proposed targeted implementation date (milestone) and complete all actions by 2026. 		<input checked="" type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical	
Why:	To reduce wildlife strike hazards on or in the vicinity of aerodromes and enhance safety of aerodrome operations in Asia-Pacific States.	Follow-up:	<input checked="" type="checkbox"/> Required from States
When:	23-Nov-22	Status:	Draft to be adopted by PIRG
Who:	<input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: XXXX		

Draft Conclusion AP–WHM WG/4–2: Asia/Pacific Guidance on Development and Implementation of Aerodrome Wildlife Hazard Management Programme		
What: That, Asia/Pacific Guidance on Development and Implementation of Aerodrome Wildlife Hazard Management Programme provided in Appendix B to the Report of AP-WHM/WG/4 be endorsed for publication on ICAO APAC Website.		Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: For reference by States/Administration	Follow-up: <input type="checkbox"/> Required from States	
When: 30-Jun-22	Status: Draft to be adopted by Subgroup	
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Nil		

Agenda Item 1: Adoption of Provisional Agenda (WP/01)

1.1 The Provisional Agenda presented in WP/01 was adopted as Agenda for the Meeting.

Agenda Item 1: Adoption of agenda

Agenda Item 2: Review outcomes of related Meetings/Seminars

Agenda Item 3: Global, Regional and National Guidance/Best Practices on Wildlife Hazard Management

Agenda Item 4: Progress Update on Tasks assigned to States and International/Regional Organizations

Agenda Item 5: Asia Pacific Regional Guidance on Implementation of Wildlife Hazard Management Programme

Agenda Item 6: AP-WHM WG TOR and Task List

Agenda Item 7: Any Other Business

Agenda Item 8: Date and Venue of Next Meeting

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Agenda Item 2: Review Outcomes of related Meetings/SeminarsOutcomes of APANPIRG/32, AOP/SG/5 Meetings and ICAO-AAWHG Wildlife Hazard Management Webinar (WP/02)

2.1 The Secretariat provided outcomes of AOP/SG/5 (29 June - 2 July 2021) and APANPIRG/32 (1 – 3 December 2021) Meetings related to the Asia Pacific Wildlife Hazard Management Working Group (AP-WHM/WG) and information on ICAO/AAWHG WHM Webinars. The Report of APANPIRG/32 Meeting could be accessed at: <https://www.icao.int/APAC/Meetings/Pages/2021-APANPIRG32.aspx>

2.2 AP-WHM/WG/4 was informed that AOP/SG/5 had approved the following generic documents developed by the AP-WHM/WG in support of the management of wildlife hazard by aerodrome operators in Asia/Pacific Region:

- a) Asia Pacific Guidance for Establishment of a National Procedure for Recording and Reporting Wildlife Strikes to Aircraft; and
- b) Asia/Pacific Guidance for Evaluation of Aerodrome Wildlife Hazard Management Programme (AWHMP).

2.3 The above mentioned documents were posted on the ICAO Asia/Pacific Regional Office eDocuments web-page: <https://www.icao.int/APAC/Pages/eDocs.aspx> under AGA heading.

2.4 AP-WHM/WG/4 noted the following Decision adopted by AOP/SG/5:

Decision AOP/SG/5-7: TOR of AP-WHM /WG

*That, the Terms of Reference of the Asia/Pacific Wildlife Hazard Management Working Group be amended as in **Appendix I of the AOP/SG/5 Report**.*

2.5 With the above Decision AOP/SG/5-7, the tenure of the AP-WHM/WG was extended for two more years until September 2023.

2.6 The amended TOR is placed in Section 7, History of the Meeting.

2.7 APANPIRG/32 had noted that ICAO and Australian Aviation Wildlife Hazard Group (AAWHG) had jointly organized the following Webinars on Wildlife Hazard Management for Asia and Pacific States/Administrations as follows:

- Wildlife Hazard Management Programme on 18 May 2021
- Reporting and Recording Data on Wildlife Strikes on 20 July 2021
- Wildlife Safety Risk Assessment on 14 September 2021.

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Agenda Item 3: Global, Regional and National Guidance/Best Practices on Wildlife Hazard Management

3.1 There was nil WP under Agenda Item 3; however, as per request of the Chairman of the Working Group, Mr. John Weller, Chairperson of the Wildlife Hazard Management Expert Group provided the verbal progress update on rewriting of the *Manual on the ICAO Bird Strike Information System (IBIS)* (Doc 9332).

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Agenda Item 4: Progress Update on Tasks assigned to States and International/Regional Organizations

Template of State Action Plan for Establishment and Implementation of Wildlife Hazard Management Programme (WP/03)

4.1 A small Task Force comprises of experts from Australia, Thailand, ACI, IFALPA and WBA developed a generic template with successive action items, responsible entities, target and actual implementation dates to assist Asia-Pacific States in establishing and implementing national wildlife hazard management programme (WHMP) in accordance with Task 3/1 of the AP-WHM/WG.

4.2 In developing the template, the Task Force had made reference to existing ICAO, States and industry guidance materials, and expert views and experience relevant to wildlife hazard management.

4.3 For the State to establish a WHMP, the template suggests actions and their order in which these are to be taken. Entities responsible to take the successive actions, target and actual implementation dates should be determined by the States themselves and provide explanatory remarks where necessary.

4.4 The template has 16 action items and allows for some flexibility in the order in which certain actions are to be taken to suit the specific circumstances of the State concerned.

4.5 AP-WHM/WG/4 reviewed the generic template and formulated the following Draft Conclusion for endorsement by AOP/SG/4 in June 2022 and consideration by APANPIRG/33 in November 2022:

Draft Conclusion AP–WHM/WG/4–1: State Action Plan for Establishment and Implementation of WHMP - Generic Template			
That, Asia/Pacific States are urged to:		Expected impact:	
<ul style="list-style-type: none"> Develop “State Action Plan for Establishment and Implementation of WHMP” in accordance with the generic template in Appendix A to the Report of AP-WHM/WG/4 assigning State responsible entities and targeted implementation dates (milestones); and Commence to execute the State Action Plan the latest from Q1 2023 and in accordance with the proposed targeted implementation date (milestone) and complete all actions by 2026. 		<input checked="" type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input checked="" type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical	
Why:	To reduce wildlife strike hazards on or in the vicinity of aerodromes and enhance safety of aerodrome operations in Asia-Pacific States.	Follow-up:	<input checked="" type="checkbox"/> Required from States
When:	23-Nov-22	Status:	Draft to be adopted by PIRG
Who:	<input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: XXXX		

4.6 In accordance with States response to Working Group's Chairman query on establishment of the National WHM Committee and WHMP, it was revealed that most of the States participated at AP-WHM/WG/4 had yet to establish both. The Chairman encouraged States that need assistance in the establishment of the National WHM Committee and/or WHMP to approach to ICAO APAC Office requesting an assistance from the AP-WHM/WG.

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Agenda Item 5: Asia Pacific Regional Guidance on Implementation of Wildlife Hazard Management Programme

Draft Asia/Pacific Guidance on Development and Implementation of Aerodrome Wildlife Hazard Management Programme (WP/04)

5.1 Delivered by Australia on behalf of the small Task Force comprised of Australia, Fiji, India, AAPA, ACI, IFALPA and WBA, the WP/08 presented a “Draft Asia/Pacific Guidance on Development and Implementation of Aerodrome Wildlife Hazard Management Programme”. The paper was prepared in response to AP-WHM WG Task 1/9.

5.2 At AP-WHM/WG/2 meeting, Fiji had presented “WP/07 Guidance on Wildlife Hazard Management Programme in Fiji”. AP-WHM/WG/2 meeting considered the development of a Regional Guidance document on Aerodrome Wildlife Hazard Management Programmes (AWHMP) with reference to the best practices from Fiji and other States in the APAC Region.

5.3 The AP-WHM/WG/3 Meeting reviewed the “Draft Asia/Pacific Regional Guidance for development and implementation of Aerodrome Wildlife Hazard Management Programme”. The Meeting noted that the draft guidance document contained detailed guidelines required for development and implementation of Aerodrome WHMP; however, the draft document required further improvement in terms of its structure to align with the guidelines provided in *PANS-Aerodromes* (Doc 9981) and *Airport Services Manual* (Doc 9137), *Part 3 – WHM* for endorsement by the AP-WHM/WG/4.

5.4 After deliberation and discussion on the “*Draft Asia Pacific Regional Guidance on Development and Implementation of Wildlife Hazard Management Programme*” revised by the Task Force members, the AP-WHM/WG/4 endorsed the following Draft Conclusion for further consideration by AOP/SG/6 in June 2022:

Draft Conclusion AP–WHM WG/4–2: Asia/Pacific Guidance on Development and Implementation of Aerodrome Wildlife Hazard Management Programme			
What:		That, Asia/Pacific Guidance on Development and Implementation of Aerodrome Wildlife Hazard Management Programme provided in Appendix B to the Report of AP-WHM/WG/4 be endorsed for publication on ICAO APAC Website.	
		Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical	
Why:		For reference by States/Administration	Follow-up: <input type="checkbox"/> Required from States
When:		30-Jun-22	Status: Draft to be adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: Nil			

5.5 In response to Chairman’s query, it was clarified by the Task Force members that the “*Asia Pacific Regional Guidance on Development and Implementation of Wildlife Hazard Management Programme*” provides more comprehensive guidance and cover broader perspectives of WHMP from aerodrome regulator’s as well as aerodrome operator’s perspectives compare to guidelines provided in *Airport Services Manual* (Doc 9137), *Part 3 – WHM* and *ACI WHM Handbook* which was developed purely from aerodrome operator’s perspective.

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Agenda Item 6: AP-WHM/WG TOR and Task ListAP-WHM/WG TOR and Task List (WP/05)

6.1 The second amendment to Terms of Reference (TOR) of AP-WHM/WG approved by AOP/SG/5 in July 2021 is placed in Section 7, History of the Meeting.

6.2 The AP-WHM/WG/4 Meeting reviewed the Task List, and the updated Task List provided in **Appendix C**.

Agenda Item 7: Any other BusinessAsia Pacific Generic Guidance Materials and Custodian (WP/06)

7.1 AP-WHM/WG/4 reviewed a list of Generic Guidance Materials (GGMs) developed by AP-WHM/WG and approved by APANPIRG AOP/SG and discussed the need for identification of custodians for coordination for future review and periodic updates of these Guidance Materials.

7.2 AP-WHM/WG/4 also noted that these GGMs should be reviewed and updated periodically in future based on the amendments to ICAO SARPs, revision of PANS-Aerodromes (Doc 9981), Airport Services Manuals and other relevant ICAO documents including availability of States' good practices in wildlife hazard management. For this purpose, it is necessary to identify dedicated person(s) of the organization(s) with responsibility to coordinate for review and update the respective APAC GGM(s) in coordination with ICAO APAC Office whenever it would become necessary.

7.3 The Secretariat would develop a process with the triggering event for review and update of the APAC GGM(s), which would be applicable to all Working Group(s) and Task Force under APANPIRG AOP/SG once approved by AOP/SG.

7.4 The list of GGMs developed by AP-WHM/WG and approved/to be approved by APANPIRG AOP/SG with the names of custodians proposed by States is provided in the Table below:

S. No	APAC Generic Guidance Materials	Edition/Version, Date	States involved in the Development of Generic Guidance Materials	Custodian (Responsible party for coordination for future review and updates)
1	Composition of National Wildlife Hazard Management Committee	Sep. 2019	Nepal, Bhutan, Lao PDR	Nepal Mr. Deo Chandra Lal Karna, d_karna@hotmail.com
2	Terms of References of National Wildlife Hazard Management Committee	Sep. 2019	Nepal, Bhutan, Lao PDR	Nepal Mr. Deo Chandra Lal Karna, d_karna@hotmail.com
3	Asia Pacific Guidance for Evaluation of Aerodrome Wildlife Hazard Management Programme	First Edition, 2 July 2021	WBA, Australia, Bangladesh, India, Thailand and ACI	WBA Ms. Lalita Vaswani lalita@worldbirdstrike.com
4	Asia Pacific Guidance for Establishment of National Procedure for Recording and Reporting Wildlife Strikes to Aircraft	First Edition, 2 July 2021	Philippines, Sri Lanka, Nepal, WBA, IFALPA	WBA Ms. Lalita Vaswani lalita@worldbirdstrike.com
5	Asia Pacific Guidance on Development and Implementation of Airport Wildlife Hazard Management Programme	Draft Version	Australia, Fiji, India, WBA, AAPA	WBA Ms. Lalita Vaswani lalita@worldbirdstrike.com

List of Experts of Asia/Pacific Wildlife Hazard Management Working Group (IP/02)

7.5 AP-WHM/WG/4 noted the updated list of experts of AP-WHM/WG.

Mastermark's Presentation (PPT/01)

7.6 Mastermark, the sponsor of the AP-WHM/WG/4 meeting made a presentation on their services on Wildlife and Bird Management, Wildlife Consultancy and Airport Wildlife Hazard Management. Mastermark also provided information on airport wildlife hazard training courses developed in partnership with ICAO and EMBRY-RIDDLE Aeronautical University, Asia and demonstrated the website where personnel involved in the WHM may ask questions on WHM.

WBA Presentation (PPT/02)

7.7 World Birdstrike Association (WBA) made a presentation on implementation of WHMP framework with the objective to assist States and Aerodrome Operators that have yet to establish and implement the WHMP. The framework was still in the draft stage.

Recommended Actions by States in establishing and implementing WHMP (Flimsy/01)

7.8 Based on "*Report of States/Aerodrome Operators Problems/Issues on Wildlife Hazards Management based on Completed Survey Questionnaire (AP-WHM/WG/4-WP/04)*" WBA prepared and presented the excel spreadsheet with recommendations and suggested action by States having certain deficiencies in WHM. The spreadsheet would be helpful for States and Aerodrome Operators to take identified actions/activities with assigned roles and responsibilities to establish and implement WHMP framework.

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Agenda Item 8: Date and Venue of Next MeetingProvisional Agenda, Date and Venue of Next Meeting (WP/07)

8.1 The Meeting reviewed the draft agenda proposed by the Secretariat and agreed on the following Provisional Agenda for the AP-WHM/WG/5:

AP-WHM/WG/5
DRAFT PROVISIONAL AGENDA

Agenda Item 1:	Adoption of agenda
Agenda Item 2:	Review outcomes of related Meetings/Seminars
Agenda Item 3:	Global, Regional and National Guidance/Best Practices on Wildlife Hazard Management
Agenda Item 4:	Progress Update on Tasks assigned to States and International/Regional Organizations
Agenda Item 5:	Asia Pacific Regional Guidance on Implementation of Wildlife Hazard Management Programme
Agenda Item 6:	AP-WHM WG ToR and Task List
Agenda Item 7:	Any Other Business

8.2 The next meeting of AP-WHM/WG would be held in May 2023 for three to four days.

8.3 The meeting determined that AP-WHM/WG/5 should be in the form of face-to-face meeting if international travel resumes.

8.4 States/Administrations interested to host the AP-WHM/WG/5 were requested to contact the Secretariat. The venue of AP-WHM/WG/5 will be communicated to States/Administrations through ICAO APAC Invitation Letter.

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Closing of the Meeting

9.1 Deo Chandra Lal Karn, Chairperson of the AP-WHM/WG, expressed sincere thanks and appreciation to the participants from States/Administrations, International Organizations (IOs) and members of ICAO WHM Expert Group for their contribution and support to AP-WHM/WG/4. Special thanks deserved to Member States and IOs who provided invaluable contribution to complete tasks related to the development of the regional guidance documents on WHM, the Template for State Action Plan on Establishment of WHMP and Mastermark for sponsoring the meeting. He also expressed thanks to ICAO Secretariat for an excellent preparation of the meeting.

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