



AFRICAN EURASIAN MIGRATORY LANDBIRDS

**PROGRAMME OF WORK (POW) FOR THE WORKING GROUP (WG)
OF THE AFRICAN-EURASIAN MIGRATORY LANDBIRDS ACTION
PLAN (AEMLAP)
2021-2026**

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ACRONYMS

AEMLAP	African-Eurasian Migratory Landbirds Action Plan
AEWA	African Eurasian Waterbird Agreement
APLORI	Anastasios P. Leventis Ornithological Research Institute (Nigeria)
BTO	British Trust for Ornithology
BLI	BirdLife International
CAF	Central Asian Flyway
CMS	Convention on the Conservation of Migratory Species of Wild Animals
COP	Conference of the Parties
DG-ENV	Directorate-General for the Environment of the European Commission
EBCC	European Bird Census Council
EOU	European Ornithologists Union
ETF	Energy Task Force
EURING	European Union for Bird Ringing
EURO SAP	European Union Species Action Plan
FACE	European Federation of Associations for Hunting and Conservation
FLAP	Friends of the Landbirds Action Plan
IKB	Illegal Killing, Taking and Trade of Wild Birds
IOC	International Ornithologists' Union Congress
IREC-CSIC	Research Institute of Hunting Resources of Spain
IUCN	International Union for Conservation of Nature
MIKT	Intergovernmental Task Force on Illegal Killing, Taking and Trade of Migratory Birds in the Mediterranean
MLSG	Migrant Landbirds Study Group
MSB	Migratory Soaring Birds
MOU	Memorandum of Understanding
NABU	Naturschutzbund Deutschland
NGO	Non-Governmental Organisation
OFB	Office Français de la Biodiversité
PAOC	Pan-African Ornithological Congress
POW	Programme of Work
RSPB	Royal Society for the Protection of Birds
SABAP2	South African Bird Atlas Project 2
SANBI	South African National Biodiversity Institute
SAP	Species Action Plan
SG	Steering Group
SOI	Swiss Ornithological Institute – Schweizerische Vogelwarte Sempach
SWOT	Strengths, Weaknesses, Opportunities, and Threats
UNCCD	United Nations Convention on Combating Desertification
UNDP	United Nations Development Programme
WG	Working Group

1. INTRODUCTION AND OBJECTIVES OF THIS DOCUMENT

Background

The African-Eurasian Migratory Landbirds Action Plan ([AEMLAP](#)) aims at improving the conservation status of migratory landbird species along the African-Eurasian region through coordinating actions at the international scale and through catalysing actions at national level. Its overall goal is to develop an initial overarching strategic framework to conserve, restore and sustainably manage populations of migratory landbird species and their habitats.

The overall objectives of the AEMLAP complement the work of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds ([AEWA](#)), the Central Asian Flyway ([CAF](#)) Action Plan for the Conservation of Migratory Waterbirds and their Habitats and the Memorandum of Understanding on the Conservation of Migratory Birds of Prey in Africa and Eurasia ([Raptors MOU](#)) toward restoring the status of all African-Eurasian migratory bird species.

The thematic focus areas of the AEMLAP are habitat conservation, research and monitoring, education and information, and taking and trade, and other issues, such as diseases and collision. Thus far, habitat loss and degradation have been identified as the most important threats to migratory landbird species throughout the flyway. Moreover, taking and trade for economic and cultural purposes may also negatively influence some migratory landbird populations.

The vision of the AEMLAP is to adequately monitor landbird species migrating along the African-Eurasian flyways, to identify and mitigate threats to them, to improve their conservation and to preserve and/or sustainably manage their habitats.

The Programme of Work (POW) of the African-Eurasian Migratory Landbirds Working Group

The implementation of the AEMLAP has been steered and supported by the African-Eurasian Migratory Landbirds Working Group (AEML WG). The activities of the AEML WG in recent years were guided by its Programme of Work (POW) 2016-2020. The revised POW for the period 2021-2026 presented here features problems, objectives and activities that are specified through a multi-step process. First, a 'problem tree' was developed to understand the most urgent topics and threats for the conservation of migratory landbirds. Based on this problem tree, an 'objective tree' was developed, on which the strategic fields of the AEMLAP were highlighted. Lastly, these strategic fields are further elaborated in detail below applying a standard LogFrame approach and integrating Theory of Change (ToC) diagrams.

The present document updates all previous versions of the Programme of Work for the AEML WG and aims to:

- a) present an analysis of the state of the AEML WG POW implementation;
- b) outline the main objectives, activities, and indicators for the POW for the period 2021-2026;
- c) identify gaps and needs; and plan accordingly to overcome these; and
- d) develop a monitoring system for the AEML WG POW implementation.

2. MANDATE

The AEML WG was created based on the mandate of CMS [Resolution 10.27 Improving the Conservation Status of Migratory Landbirds in the African Eurasian Region](#), adopted at the Tenth Meeting of the CMS Conference of the Parties (CMS COP10, Bergen,

Norway, 2011), which called on the Scientific Council and the Secretariat to support this initiative, including through the establishment, under the Scientific Council, of a working group to steer the production and implementation of an African-Eurasian Migratory Landbirds Action Plan.

Through [Decision 13.38 Action Plan For Migratory Land Birds in the African-Eurasian Region \(AEMLAP\)](#), CMS COP13 (Gandhinagar, India, 2020) requested the Working Group, subject to the availability of resources, with support from the Scientific Council and the Secretariat, to update its Programme of Work by the end of 2020, including an associated budget to capture the existing financial requirements and conservation priorities and in line with the [CMS Strategic Plan for Migratory Species 2015 – 2023](#).

In addition, as an intersessional Working Group under the CMS Scientific Council, the AEML WG and its POW play a key role in supporting the implementation of CMS [Decision 13.35b](#), through which the COP requests the Scientific Council, in the intersessional period between COP13 and COP14, and subject to the availability of resources, to work with the Migratory Landbird Study Group, relevant academic institutions, research-funders and the Working Group, in order to actively promote research that addresses key knowledge gaps relating to migratory landbird conservation in African landscapes.

The AEML WG and its POW focus on protecting all wild migratory landbird species within the scope of the AEMLAP, by working alongside CMS Parties, public and private institutions, as well as other existing instruments and supporters. The present update of the POW was coordinated by the AEML SG, supported by the Swiss Ornithological Institute (SOI) as the Coordination Unit of the AEML WG, and approved via electronic correspondence by the AEML WG in November 2022.

3. SCOPE OF THE AEML WG POW

The geographic scope of this POW covers the area along the migration systems of African-Eurasian landbird species, hereafter referred to as the 'Action Plan Area'. This area includes Africa, Europe, the Middle East, Central Asia, Afghanistan, and the Indian sub-continent. The map of the Action Plan Area and list of Range States can be found in Annex 2 of the AEMLAP.

The taxonomic scope comprises populations of Galliformes, Gruiformes, Charadriiformes, Columbiformes, Caprimulgiformes, Apodiformes, Cuculiformes, Coraciiformes, Piciformes and Passeriformes, and for which the entire population, or significant proportions of the population, cyclically and predictably cross one or more national jurisdictional boundaries. Further, the migratory landbird species covered by the AEMLAP are classified into three categories:

- A: Globally Threatened and Near-Threatened;
- B: Least Concern, but with decreasing global population trends; and
- C: Least Concern, with increasing, stable or unknown global population trends.

The AEMLAP sets out to particularly include species that are neither covered by AEWA nor by the Central Asian Flyway Action Plan for the Conservation of Migratory Waterbirds and their Habitats or the Raptors MOU. However, migratory landbird species that are covered by these instruments and other policy instruments have been indicated as such in Annex 3 of the AEMLAP.

4. SITUATION ANALYSIS

Prior to the development of this Programme of Work, an assessment of the current situation, including problems and their causes, as well as needs, interests and capacities, was undertaken. During the period 2021-2022, a draft version of this POW was shared amongst all members of the AEML Steering Group, and their revisions and suggestions were incorporated where feasible.

5. ANALYSIS OF STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS (SWOT)

This analysis is a framework used to evaluate the current state of the AEML WG POW and to serve as a basis for the next phases of the strategic review. A SWOT analysis (Table 1) assessed internal and external factors as well as current and future potential.

Table 1 Analysis of strengths, weaknesses, opportunities, and threats (SWOT) of the AEML WG POW

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Internationally acknowledged experts in AEML Steering and Working Group • Flyway-scale approach • Updated and solid current knowledge on the conservation status of palearctic migrants • Species Action Plans (SAPs) • Strong environmental legislative framework covering multiple range states • An active Migrant Landbird Study Group (MLSG) • Public outreach and awareness strengthening through social media channel (Friends of the Landbirds Action Plan - FLAP) 	<ul style="list-style-type: none"> • Insufficient implementation due to large programme, multiple threats and long species list • Insufficient law enforcement • Frequent alternation and absence of strictly defined focal points across range states and partial absence from existing AEML WG • Limited or no financial support and full commitment from Parties • Lack of role and link with other ongoing CMS decisions and resolutions such as Flyways, CAF, etc.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • COP14 could assist in refining the priorities of the AEMLAP • CMS Parties can step up and enhance their commitments • Strengthening synergies with other CMS instruments • Potential to work closely with UNCCD, Pan-African Great Green Wall and other fora, promoting landbirds as indicators of sustainable land-use, in line with the Abuja declaration. • Newly structured AEML WG Coordination Unit at SOI 	<ul style="list-style-type: none"> • Absence of stable and fully-funded AEMLAP coordination post • Lack of clarity of POW priorities that could dilute outcomes • Political instability in several range states • Insufficient active engagement towards implementing AEMLAP in the range states • Gaps in our knowledge about detailed (conservation) needs for some species during the annual cycle • Complex dynamics followed by landbirds, which require a landscape approach rather than site-based protection

6. PROBLEM ANALYSIS

Problem analysis can be defined as the thorough study of one or more problems (identified during the assessment stage), to identify their causes and decide whether and how to tackle them. The problem tree analysis (Figure 1) presents the causes (lower half) and consequences (upper half) of the current declines of migratory landbirds within the AEMLAP region. It was developed to get a clear and shared understanding of the problem. Four different 'strategic fields' were identified in this exercise: A) Habitat loss B),

Direct threats, C) Knowledge Gaps, and D) Insufficient Communication, Education and Public Awareness.

7. AEMLAP OBJECTIVES AND STRATEGY

The next step in the strategic review was to transform the problem tree into an 'objectives tree' (Figure 2). Each negative problem highlighted in the problem tree was converted into an objective by rewriting it as a positive statement.

8. AEML WG POW LOGICAL FRAMEWORK (LOGFRAME) DEVELOPMENT

A logical framework approach was used to set out the objectives and actions of each previously defined strategic field: (A) Habitat loss, (B) Direct threats, C) Knowledge Gaps, and D) Insufficient Communication, Education and Public Awareness, (Figures 3 to 6).

For each of the four strategic fields, long-term, mid-term and short-term goals were defined (Figures 3 to 6), and activities (Tables 2 to 9) and actions highlighted. Short-term goals are for up to 5 years (until CMS COP15), mid-term goals for up to 10 years; interventions are to be started and implemented within the next 5 years (until CMS COP15). The timeline (Table 4) and budget (Table 5) for the implementation of the activities in the POW are also provided.

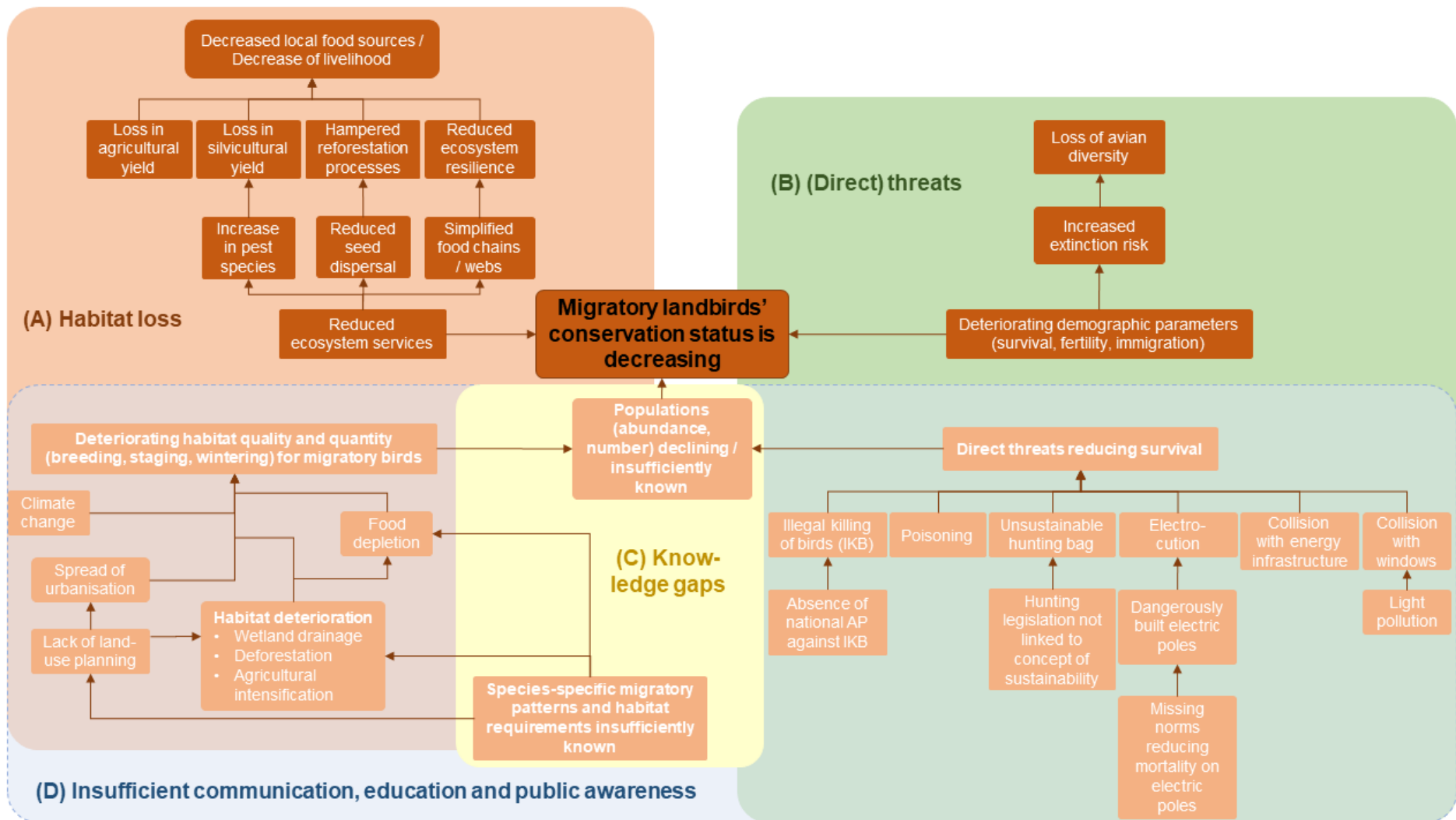


Figure 1 Problem tree. Coloured boxes A to D highlight the problem fields on which the POW was built.

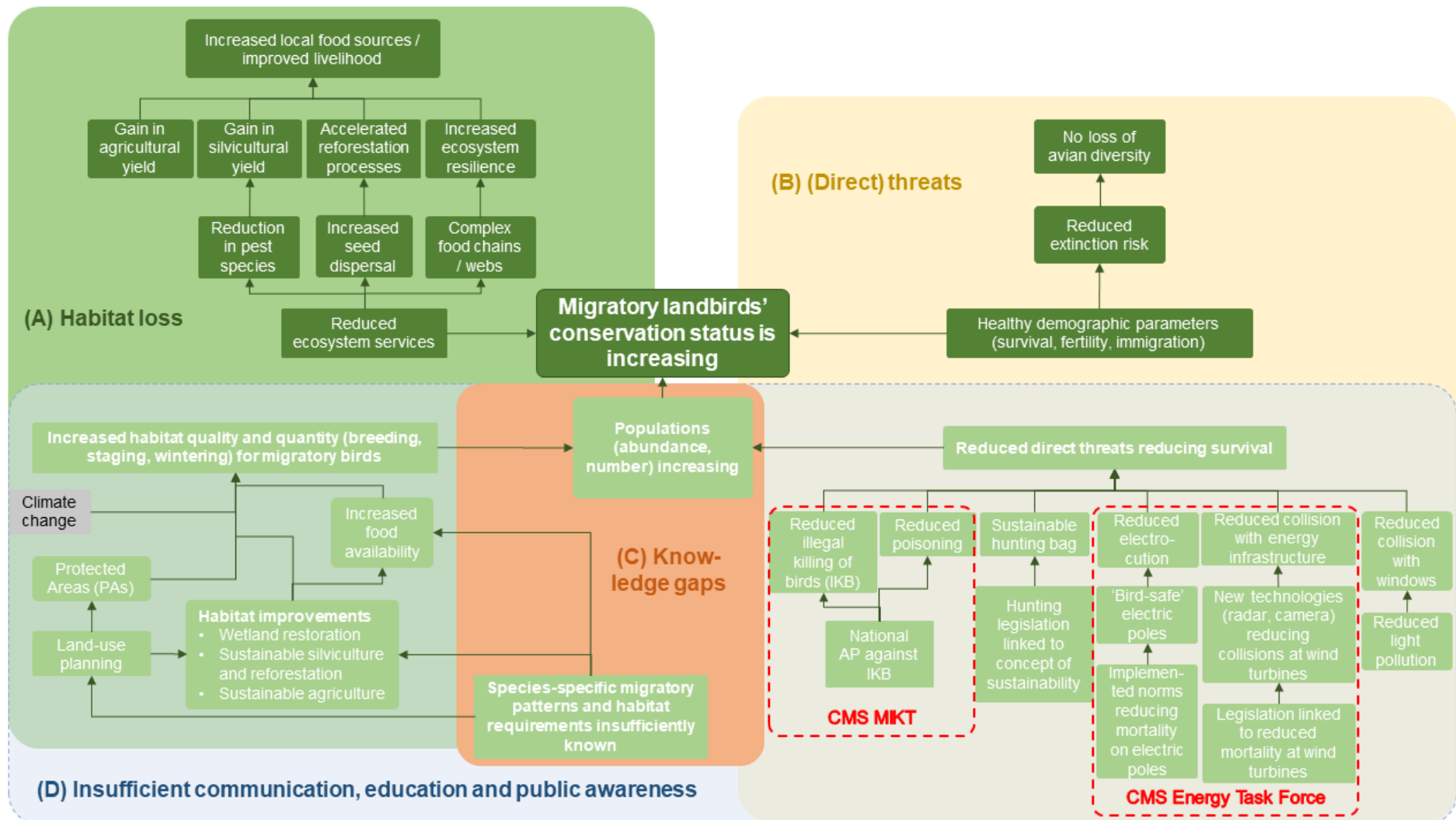


Figure 2 Objectives tree. Coloured boxes A to D highlight the four strategic fields on which the POW was built. Red dashed lines highlight fields that are covered by other existing CMS instruments.

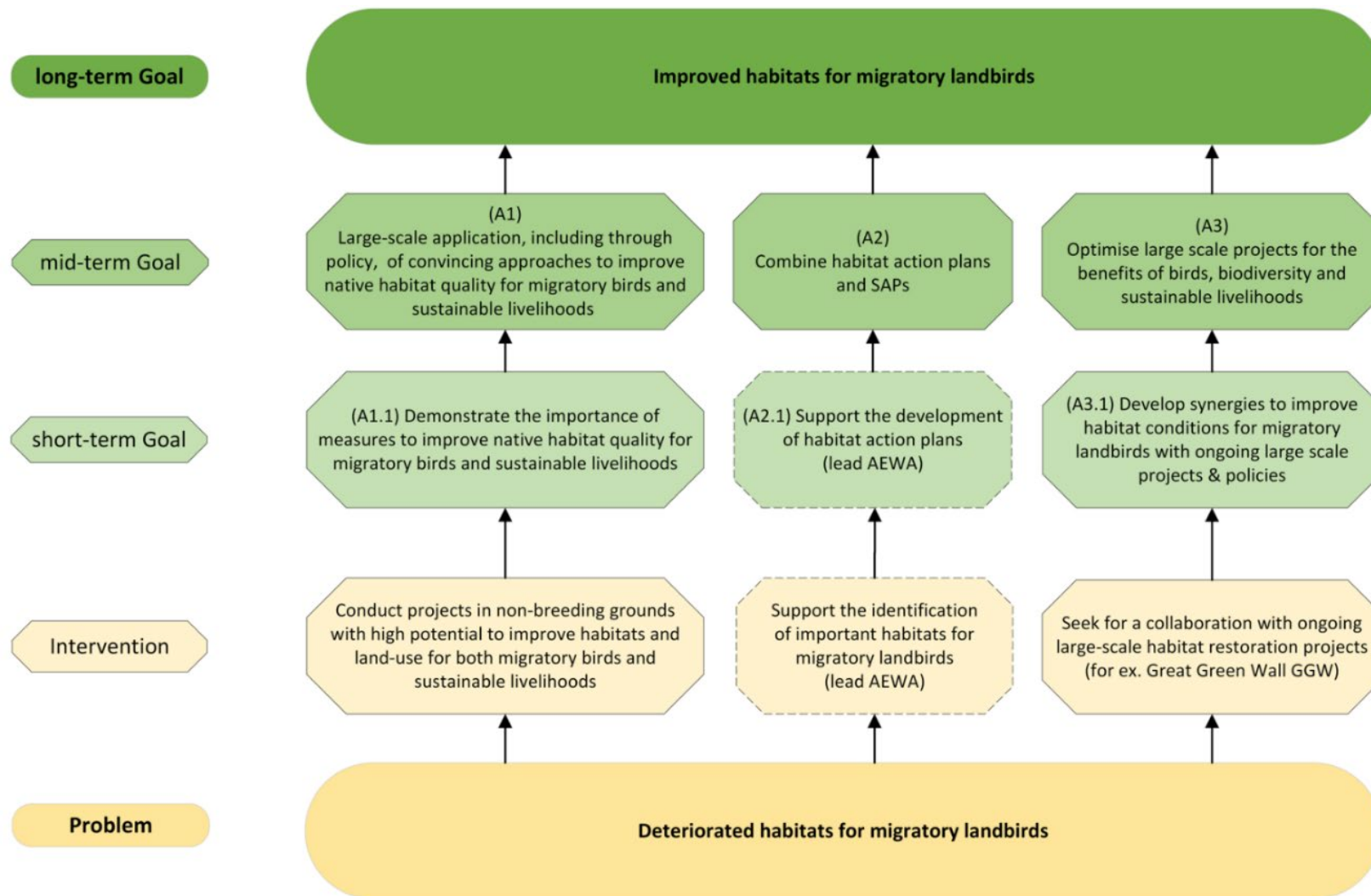


Figure 3 Long-, mid-, and short-term goals for the strategic field “A - Habitat conservation”. The box with the dashed frame indicates support of another existing CMS instrument.

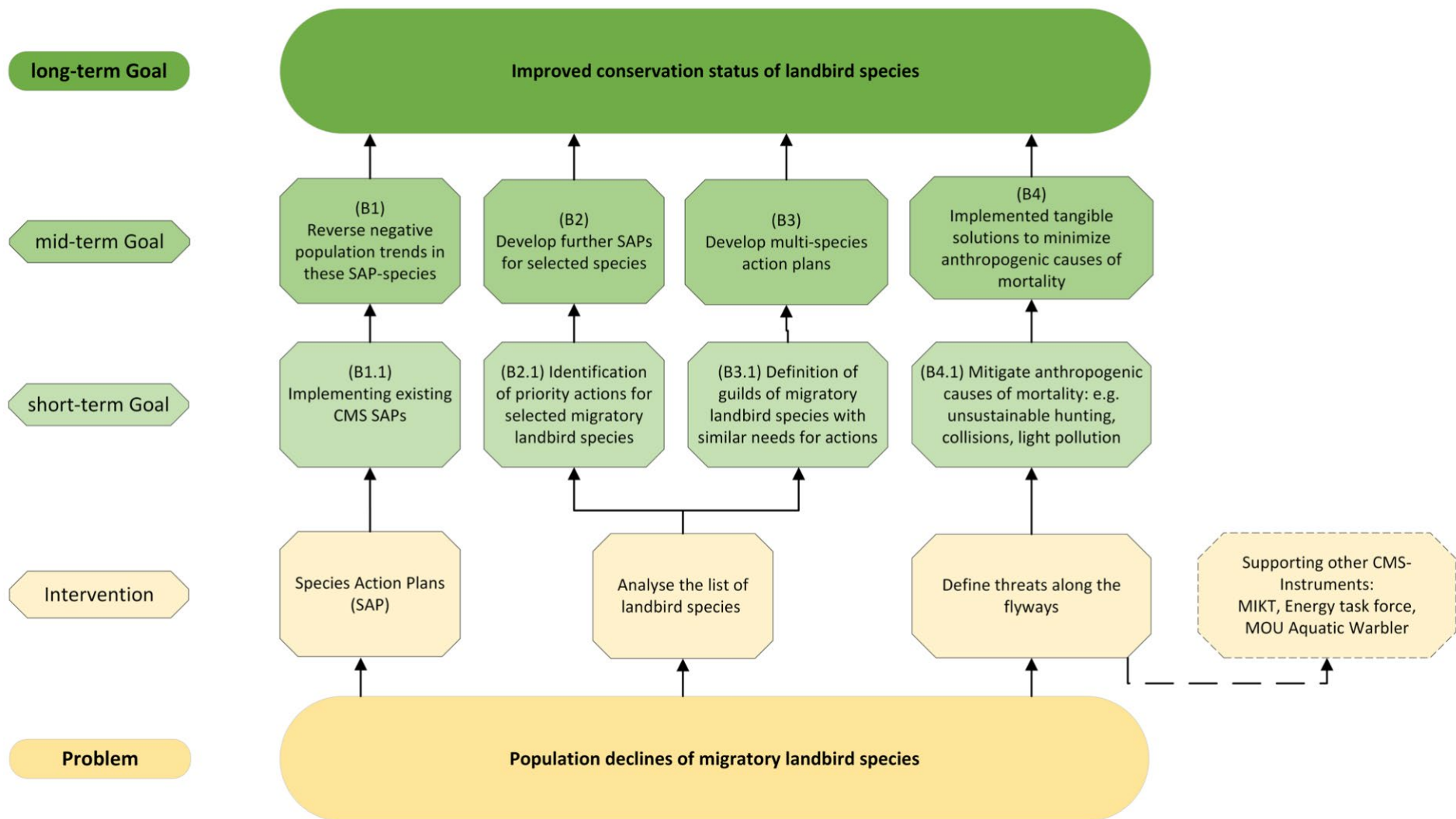


Figure 4 Long-, mid-, and short-term goals for the strategic field “B - Species Conservation”. The box with the dashed frame indicates support of another existing CMS instrument.

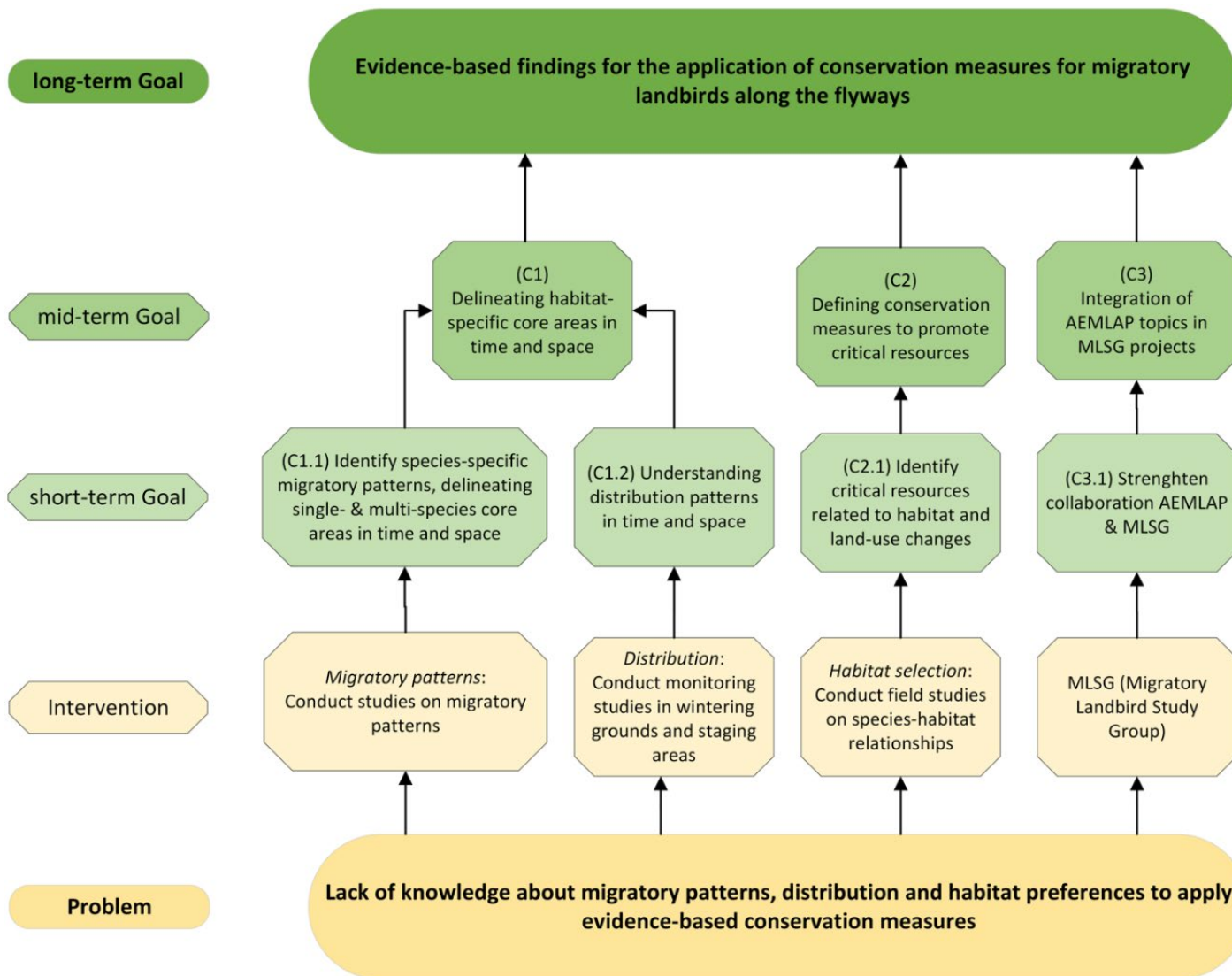


Figure 5 Long-, mid-, and short-term goals for the strategic field “C - Research and Monitoring”.

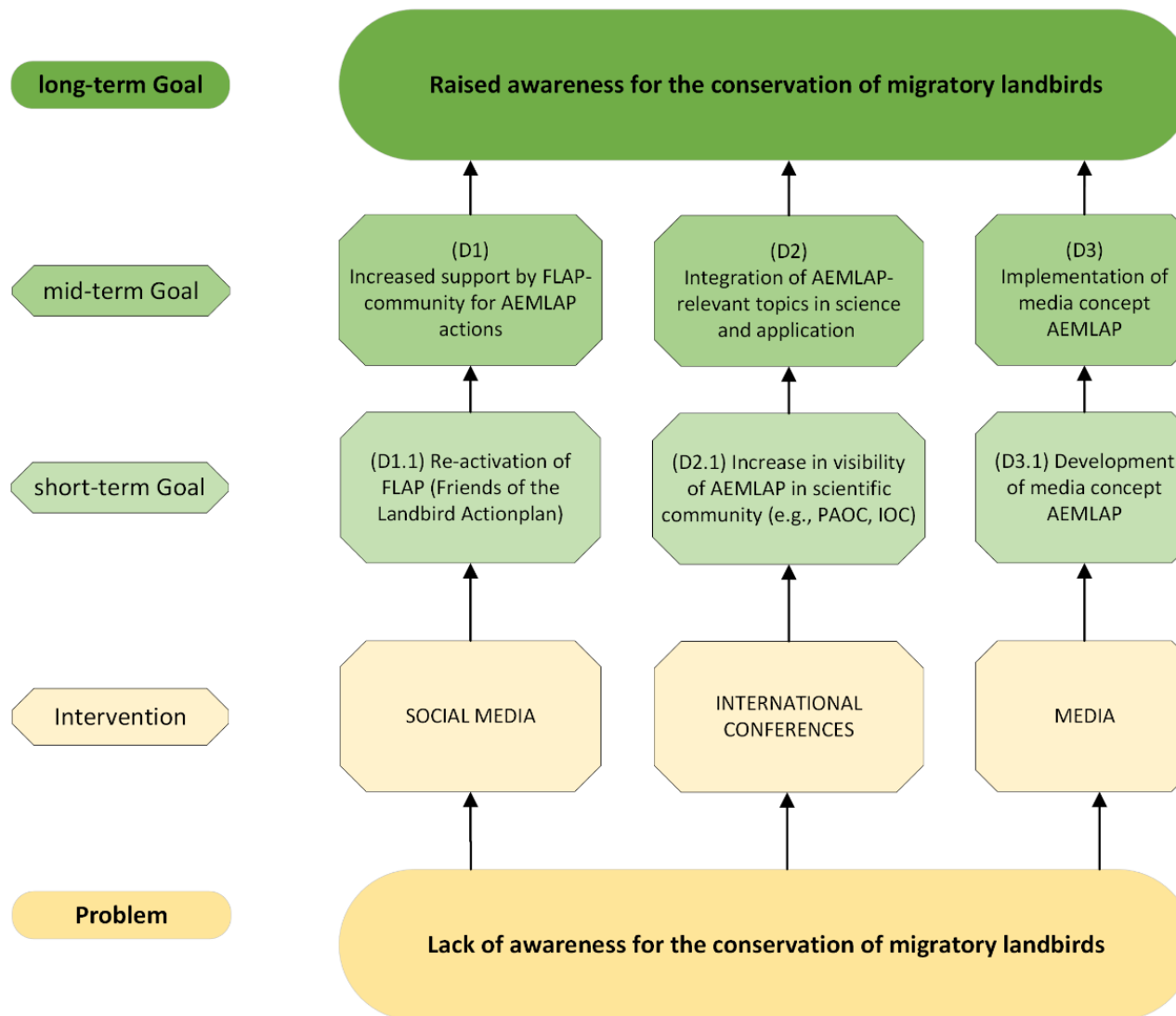


Figure 6 Long-, mid-, and short-term goals for the strategic field “D - Communication, Education and Public Awareness”.

Table 2 Indicators, verification methods and risks identified for the goals of the four strategic fields of the AEML WG POW.

Strategic Field		Indicators	Verification	Risks
A - Habitat conservation.				
Long-term Goal: Improved habitats for migratory landbirds				
A 1	Mid-term Goal: Large-scale application, including through policy, of convincing approaches to improve native habitat quality for migratory birds and sustainable livelihoods	I. Improved habitats II. Benefits to local communities III. Policy changes	I. Maps, reports, remote sensing data II. Questionnaires, statistics III. Policies in place	
A 1.1	Short-term Goal: Demonstrate the importance of measures to improve native habitat quality for migratory birds and sustainable livelihoods	I. Implemented measures II. Estimated effect on migratory landbirds III. Estimated effect on livelihood	I. Reports II. Monitoring projects & scientific studies III. Questionnaires & statistics	
A 2	Mid-term Goal: Combine habitat action plans and SAPs	I. Definition / launch of new projects of complimentary themes II. Synergies among existing projects	I. & II. Project proposals to CMS	
A 2.1	Short-term Goal: Support the development of habitat action plans (lead: AEWA)	I. Co-developed habitat APs	I. Report, proposals	
A 3	Mid-term Goal: Optimise large scale projects for the benefits of birds, biodiversity and sustainable livelihoods	I. Proposed large-scale measures II. Implemented large-scale measures	I. Project proposals II. Project actions	
A 3.1	Short-term Goal: Search for synergies to improve habitat conditions for migratory landbirds with ongoing large-scale projects & policies	I. Analysis of synergies with existing projects II. Criteria for interventions	I. Project report II. Set of criteria	
B - Species conservation.				
Long-term Goal: Improved conservation status of landbird species				

B 1	Mid-term Goal: Reverse negative population trends in these SAP-species	III. Population trend and distribution	III. Ongoing monitoring schemes	Insufficient funding situation of monitoring schemes
B 1.1	Short-term Goal: Support the implementation of existing CMS SAPs	I. International SAP working groups established with coordinators II. Actions along flyway III. Changes in legislation (e.g., sustainable hunting)	I. Reports and scientific publications II. Changes in national or international legislation and policies III. National Reporting to CMS	Insufficient funding of SAPs (coordination and implementation) Limited law enforcement Limited monitoring of policy implementation (e.g., AES)
B 2	Mid-term Goal: Develop further SAPs for selected species	I. New SAPs	I. SAPs elaborated and submitted to CMS for adoption at COP	Insufficient funding
B 2.1	Short-term Goal: Identification of priority actions for selected migratory landbird species	I. analysis of AEMLAP species list II. identified actions	I. Report II. Report	Insufficient funding
B 3	Mid-term Goal: Develop multi-species action plans	I. New 'multi-species APs'	I. 'Guild APs' elaborated and submitted to CMS for adoption by COP	Insufficient funding and capacity
B 3.1	Short-term Goal: Definition of guilds of migratory landbird species with similar needs for actions	I. Analysis of AEMLAP species list II. Proposed 'Guild APs'	I & II. Report / Concept of 'Guild APs'	Insufficient funding
B 4	Mid-term Goal: Implemented tangible solutions to minimize anthropogenic causes of mortality	I. Engagement with MIKT and other IKB Task Forces II. Engagement with CMS Energy Task Force	I. Reports II. Impact studies and reports III. National reports to CMS	Insufficient funding Lack of national initiatives
B 4.1	Short-term Goal: Mitigate anthropogenic causes of mortality: e.g., unsustainable hunting, collisions, light pollution	I. Promotion of measures along flyway II. Promotion of changes in legislation (e.g., sustainable hunting) III. Assessment of anthropogenic causes of mortality along the flyway	I. Report II. Report & law enforcement III. Reports by already existing working groups	Lack of national initiatives

C – Research & Monitoring.				
Long-term Goal: Evidence-based findings for the application of conservation measures for migratory landbirds along the flyways				
C 1	Mid-term Goal: Delineating habitat-specific core areas in time and space (Conservation planning)	I. # of identified habitat-specific core areas	I. Map of single- and multi-species core areas	Insufficient funding and / or capacity
C	Short-term Goal:			
1.1	Identify species-specific migratory patterns, delineating single- and multi-species core areas in time and space	I. # of study species II. # of identified single- and multi-species core areas	I. # of published studies & Movebank database II. Map of single- and multi-species core areas	Insufficient funding and / or capacity Limited access to data
C	Short-term Goal:			
1.2	Understanding distribution patterns in time and space (monitoring projects)	I. Countries with monitoring projects III. Ongoing national & international atlas projects	I. # of ongoing projects and amount of recorded data III. Ongoing atlas projects	
C 2	Mid-term Goal: Defining conservation measures to promote critical resources	I. Identified critical resources II. Identification of conservation measures III. Opportunities for implementation (upscaling)	I.-III. Reports	
C	Short-term Goal:			
2.1	Identify critical resources related to habitat and land-use changes	I. Studied species II. Habitats and land-use types	I.-II Proposals, reports and publications	Insufficient funding
C 3	Mid-term Goal: Integration of AEMLAP topics in MLSG	I. AEMLAP-relevant studies	I. # of proposals, reports and publications	
C	Short-term Goal:			
3.1	Increased collaboration between AEMLAP and MLSG	I. # of meetings II. # of common topics	I. # of protocols II. # of collaborations	
D – Communication, Education and Public Awareness.				
Long-term Goal: Raised awareness for the conservation of migratory landbirds				
D 1	Mid-term Goal: Increased support by FLAP-community for AEMLAP actions	I. Increased commitment of range states and scientific community	I. Range state involvement and financial support	

D 1.1	Short-term Goal: Re-activation of FLAP (Friends of the Landbirds Action Plan)	I. Reactivated social media channels & website II. Regular posts & actualized web-content III. New followers	I. Defined responsibilities II. Number of posts III. Number of followers	Insufficient funding
D 2	Mid-term Goal: Integration of AEMLAP-relevant topics in science and application	I. Visibility of AEMLAP-topics in science and application		
D 2.1	Short-term Goal: Increase of visibility of AEMLAP in scientific community	I. Contributions at international conferences & workshops	I. Conference/workshop proceedings and talks, symposia, posters	
D 3	Mid-term Goal: Implementation of media concept AEMLAP	I. Implementation of concept	I. Press releases	
D 3.1	Short-term Goal: Development of media concept AEMLAP	I. Defined priorities for media work	I. Concept	Insufficient funding

Table 3 Activities for the four strategic fields of the AEML WG POW.

Strategic Field	Indicators	Verification	Risks	
Activities for Strategic Field A - Habitat Conservation				
Activities for short-term goal A 1.1: Demonstrate the importance of measures to improve habitat quality for migratory birds and sustainable livelihoods				
A 1.1.1*	Engage in projects about the effects of sustainable resource use on palearctic migrants and African bird communities	I. Conducted field seasons	I. # publications and reports	Current critical security issues
A 1.1.2*	Engage in projects to combine business activities with conservation/restoration of biodiversity	TBD by project leads	TBD by project leads	TBD by project leads
Activities for short-term goal A 2.1: Support the development of habitat action plans (lead: AEWA)				
A 2.1.1*	Support of the 'Action plans for priority principal bird habitats in the African-Eurasian flyway' (lead: AEWA)	I. Identified priority principal habitats for migratory birds II. Identified direct and indirect threats to priority principal bird habitats III. Action plans for priority principal bird habitats IV. Identified areas of high importance for multiple migratory species & their temporal relevance	I. Analyses & report II. Analyses & report III. Submitted APs IV. Maps	Insufficient funding
Activities for short-term goal A 3.1: Search for synergies to improve habitat conditions for migratory landbirds with ongoing large-scale projects				
A 3.1.1	Increase collaboration with the Great Green Wall Initiative	I. Common meetings II. Negotiated collaborations	I. Minutes II. Proposal	
A 3.1.2	Increase collaboration with AfriEvolve	I. Common meetings II. Negotiated collaborations	I. Minutes II. Proposal	
A 3.1.3	Increase collaboration with Afr100	I. Common meetings II. Negotiated collaborations	I. Minutes II. Proposal	

A 3.1.4	Increase collaboration with UNCCD	I. Common meetings II. Negotiated collaborations	I. Minutes II. Proposal	
Activities for Strategic Field B - Species Conservation				
Activities for short-term goal B 1.1: Support the implementation of existing CMS SAPs				
B 1.1.1*	Engage in the International Single Species Action Plan for the Conservation of the European Turtle Dove <i>Streptopelia turtur</i> (2018-2028)	I. Restored habitat II. Hunting on sustainable levels III. Reduction of illegal killing IV. Increase of public awareness	I. Map & reports II. National hunting statistics & changes in hunting legislation III. Law enforcement IV. Media reports	Insufficient funding
B 1.1.2*	Engage in the Action Plan for the European Roller <i>Coracias garrulus</i>	I. Conservation of suitable habitats in non-breeding range II. Reduction of illegal killing and trapping III. Reduced mortality due to electrocution and collision with energy infrastructure IV. Increase of public awareness	I. Map & reports II. Law enforcement III. Number of reported incidents (media, databases of energy companies) IV. Media reports	Insufficient funding; Limited access to and quality of mortality data
B 1.1.3*	Engage in the process on the International Yellow-breasted Bunting Action Plan	I. Approval and implementation of AP	I. Adoption and relevant Decisions by COP14	
B 1.1.4*	Support the Memorandum of Understanding (MOU) concerning Conservation Measures for the Aquatic Warbler (<i>Acrocephalus paludicola</i>)	I. Common meetings II. Negotiated collaborations	I. Minutes II. Supported actions	
Activities for short-term goal B 2.1: Identification of priority actions for selected migratory landbird species				
B 2.1.1	Analysis of landbird species list as basis for species prioritization for future SAPs	I. Outcome of analysis II. Proposed actions and SAPs	I. Report II. List of priorities	Insufficient funding and / or capacity
B 2.1.2	Develop new SAPs (based on outcome of B2.1.1)	I. Proposition by AEML WG & SG II. Elaborated actions and SAPs	I. Input by AEML WG & SG II. Proposals	Insufficient funding and / or capacity
Activities for short-term goal B 3.1: Definition of guilds of migratory landbird species with similar needs for actions				
B 3.1.1	Support the processes for International Action Plan for migratory buntings (see B 1.1.3)	I. Extension of YBB AP	I. Extended and finalized AP	Insufficient funding and / or capacity
B 3.1.2	Evaluate multi-species APs for further guilds	I. Analysis of AEMLAP species list II. List of guilds and priorities	I.& II. Report / Concept of 'multi-species APs'	Insufficient funding and / or capacity

Activities for short-term goal B 4.1: Mitigate threats: e.g., unsustainable hunting, window collisions, light pollution				
B 4.1.1	Engage in CMS Light Pollution Project	To be defined	To be defined	To be defined
B 4.1.2	Engage in CMS MIKT (Intergovernmental Task Force on Illegal Killing, Taking and Trade of Migratory Birds in the Mediterranean)	I. Participate in MIKT meetings II. Ensure landbird priorities are addresses by MIKT	I. Minutes II. Supported actions	
B 4.1.3*	Support addressing Illegal killing of birds in sub-Saharan Africa	I. Common meetings II. Negotiated collaborations	I. Minutes II. Supported actions	
B 4.1.4	Engage in the CMS Energy Task Force (ETF)	I. Participation in ETF meetings II. Ensure ETF addresses landbird priorities	I. Minutes II. Supported actions	
Activities for Strategic Field C - Research & Monitoring				
Activities for short-term goal C 1.1: Identify species-specific migratory patterns, delineating single- and multi-species core areas in time and space				
C 1.1.1*	Increase individual tracking studies (geolocator, GPS) of selected species with conservation concern	I. # of species II. # of populations per species	I. & II. # of publications & Movebank database	Limited access to data
C 1.1.2	Multi-species analyses delineating core areas and ecological networks	I. # of species II. # of delineated core areas / networks	I. & II. # of publications & reports	Insufficient funding
Activities for short-term goal C 1.2: Understanding distribution patterns in time and space (monitoring projects)				
C 1.2.1	Set-up new bird ringing stations & bird observatories and guarantee the running of existing ones	I. Ringing activity II. # of ringing stations III. # of countries	I.-III. # of migratory landbirds ringed registered in national or international databases	Insufficient funding Limited capacity of ringers
C 1.2.2.*	Engage in the African Bird Atlas Project (ABAP)	I. # of countries II. # of observations per country	I.-II. Database of ABAP	
C 1.2.3	Engage in Citizen Science Projects: valuate existing data & improve capacity strengthening	I. Quality and quantity of data II. Qualified observers	I. Database of citizen science data projects	Limited access to data
C 1.2.4*	Support the Eurasian-African Bird Migration Atlas Project	To be defined	To be defined	To be defined
C 1.2.5	Support AfriBiRds (NB: Project ran from 2016-2019)	To be defined	To be defined	To be defined

Activities for short-term goal C 2.1: Identify critical resources related to habitat and land-use changes				
C 2.1.1	Engage in projects identifying critical food resources (e.g., "Use of African convergence zones by African-Eurasian migrants", lead: SOI)	I. Conducted field studies	I. # publications & reports	Insufficient funding
Activities for short-term goal C 3.1: Increased collaboration between AEMLAP and MLSG				
C 3.1.1*	Organize common AEMLAP and MLSG meetings	I. Defined common goals	I. Minutes	
C 3.1.2*	Co-organize contributions (e.g., talks, symposia, ...) at conferences	I. # contributions	I. Conference/workshop proceedings	
Activities for Strategic Field D - Communication, Education and Public Awareness				
Activities for short-term goal D 1.1: Re-activation of FLAP (Friends of the Landbirds Action Plan)				
D 1.1.1*	Create and/or maintain social media channels (e.g., Facebook, Twitter, ...)	I. # channels	I. Social media channel statistics	
D 1.1.2	Maintain CMS AEMLAP website	I. Updated content	I. Updated content online	
Activities for short-term goal D 2.1: Increase of visibility of AEMLAP in scientific community				
D 2.1.1*	Organize symposia with AEMLAP focus at international conferences and workshops	I. # organised symposia & talks	I. Conference proceedings	
D 2.1.2	Increase articles on how to save African-Eurasian migratory landbirds	I. Scientific paper II. Article (grey literature)	I. Published scientific paper II. Published article	
Activities for short-term goal D 3.1: Development of media concept AEMLAP				
D 3.1.1	Develop of a media concept for the AEMLAP	I. Elaborated concept	I. Report II. # contact to media, articles in the media	

Table 4 Gantt chart presenting the timeline for implementation of the AEML WG POW.

Activity		Year					
Number	Title	2021	2022	2023	2024	2025	2026
A 1.1.1	Engage in projects about the effects of sustainable resource use on palearctic migrants and African bird communities						
A 1.1.2	Engage in projects to combine business activities with conservation/restoration of biodiversity						
A 2.1.1	Support of the 'Action plans for priority principal bird habitats in the African-Eurasian flyway' (lead AEWA)						
A 3.1.1	Increase collaboration with the Great Green Wall Initiative						
A 3.1.2	Increase collaboration with AfriEvolve						
A 3.1.3	Increase collaboration with Afr100						
A 3.1.4	Increase collaboration with UNCCD						
B 1.1.1	Engage in the International Single Species Action Plan for the Conservation of the European Turtle Dove <i>Streptopelia turtur</i> (2018-2028)						
B 1.1.2	Engage in the Action Plan for the European Roller <i>Coracias garrulus</i>						
B 1.1.3	Engage in the process on the International Yellow-breasted Bunting Action Plan						
B 1.1.4	Support the Memorandum of Understanding (MOU) concerning Conservation Measures for the Aquatic Warbler (<i>Acrocephalus paludicola</i>)						
B 2.1.1	Analysis of landbird species list as basis for species prioritization for future SAPs						
B 2.1.2	Develop new SAPs						
B 3.1.1	Support the processes for International Action Plan for migratory buntings						
B 3.1.2	Evaluate multi-species APs for further guilds						
B 4.1.1	Engage in CMS Light Pollution Project						
B 4.1.2	Engage in CMS MIKT (Intergovernmental Task Force on Illegal Killing, Taking and Trade of Migratory Birds in the Mediterranean)						
B 4.1.3	Support addressing Illegal killing of birds in sub-Saharan Africa						
B 4.1.4	Engage in the CMS Energy Task Force						
C 1.1.1	Increase individual tracking studies (geolocator, GPS) of selected species with conservation concern						
C 1.1.2	Multi-species analyses delineating core areas and ecological networks						

C 1.2.1	Set-up new bird ringing stations & bird observatories and guarantee the running of existing ones	
C 1.2.2.	Engage in the African Bird Atlas Project ABAP	
C 1.2.3	Engage in Citizen Science Projects: valuate existing data & improve capacity strengthening	
C 1.2.4	Support the Eurasian African Bird migration Atlas Project	
C 1.2.5	Support AfriBiRds	
C2.1.1	Engage in projects identifying critical food resources (e.g., “Use of African convergence zones by African-Eurasian migrants”, lead: SOI)	
C 3.1.1	Organize common AEMLAP & MLSG meetings	
C 3.1.2	Co-organize contributions (e.g., talks, symposia) at conferences	
D 1.1.1	Create and/or maintain social media channels (e.g., Facebook, Twitter, ...)	
D 1.1.2	Maintain CMS AEMLAP website	
D 2.1.1	Organize symposia with AEMLAP focus at international conferences and workshops	
D 2.1.2	Increase articles on how to save African-Eurasian migratory landbirds	
D 3.1.1	Develop a media concept for the AEMLAP	


Table 5 Indicative Budget (in €) for each action identified in the AEML WG POW (2021-2026). Note: This budget does not include the work of the AEML WG Coordination Unit, which is provided in-kind by the SOI and is estimated at € 20,000 per year, i.e., € 100,000 for the period 2021-2026, part of which was already provided by the Swiss Government through the CMS Secretariat. Funding for various activities listed in the table below has been secured by the SOI.

Activity	Title	Staff costs	Non-staff costs	Overall costs	Funding secured	Funding gap
A 1.1.1	Engage in projects about the effects of sustainable resource use on palearctic migrants and African bird communities		250,000	250,000	250,000	-
A 1.1.2	Engage in projects to combine business activities with conservation/restoration of biodiversity	-	-	-	-	-
A 2.1.1	Support of the 'Action plans for priority principal bird habitats in the African-Eurasian flyway' (lead AEWA)	-	-	-	-	-
A 3.1.1	Increase collaboration with the Great Green Wall Initiative	-	10,000	10,000	-	10,000
A 3.1.2	Increase collaboration with AfriEvolve	-	10,000	10,000	-	10,000
A 3.1.3	Increase collaboration with Afr100	-	10,000	10,000	-	10,000
A 3.1.4	Increase collaboration with UNCCD	-	10,000	10,000	-	10,000
B 1.1.1	Engage in the International Single Species Action Plan for the Conservation of the European Turtle Dove <i>Streptopelia turtur</i> (2018-2028)	-	-	tbd	-	-
B 1.1.2	Engage in the Action Plan for the European Roller <i>Coracias garrulus</i>	-	-	tbd	-	-
B 1.1.3	Engage in the process on the International Yellow-breasted Bunting Action Plan	-	-	tbd	-	-
B 1.1.4	Support the Memorandum of Understanding (MOU) concerning Conservation Measures for the Aquatic Warbler (<i>Acrocephalus paludicola</i>)	-	-	tbd	-	-
B 2.1.1	Analysis of landbird species list as basis for species prioritization for future SAPs	-	8,000	8,000	-	8,000
B 2.1.2	Develop new SAPs	-	20,000	20,000	-	20,000
B 3.1.1	Support the processes for International Action Plan for migratory buntings	-	5,000	5,000	1,000	4,000
B 3.1.2	Evaluate multi-species APs for further guilds	-	12,000	12,000	-	12,000
B 4.1.1	Engage in CMS Light Pollution Project	2,000	2,000	4,000	2,000	2,000
B 4.1.2	Engage in CMS MIKT (Intergovernmental Task Force on Illegal Killing, Taking and Trade of Migratory Birds in the Mediterranean)	2,000	3,000	5,000	2,000	3,000
B 4.1.3	Support addressing Illegal killing of birds in sub-Saharan Africa	-	300,000	300,000	-	300,000
B 4.1.4	Engage in the CMS Energy Task Force	1,000	1,000	2,000	1,000	1,000
C 1.1.1	Increase individual tracking studies (geocator, GPS) of selected species with conservation concern	-	-	-	-	-

C 1.1.2	Multi-species analyses delineating core areas and ecological networks	-	10,000	10,000	-	10,000
C 1.2.1	Set-up new bird ringing stations & bird observatories and guarantee the running of existing ones	-	50,000	50,000	-	50,000
C 1.2.2.	Engage in the African Bird Atlas Project ABAP	-	100,000	100,000	60,000	40,000
C 1.2.3	Engage in Citizen Science Projects: valuate existing data & improve capacity strengthening	-	180,000	180,000	150,000	30,000
C 1.2.4	Support the Eurasian African Bird migration Atlas Project	-	-	-	-	-
C 1.2.5	Support AfriBiRds	-	-	-	-	-
C 2.1.1	Engage in projects identifying critical food resources (e.g., "Use of African convergence zones by African-Eurasian migrants", lead: SOI)	-	300,000	300,000	300,000	-
C 3.1.1	Organize AEMLAP & MLSG meetings	1,000	5,000	6,000	6,000	-
C 3.1.2	Co-organize contributions (e.g., talks, symposia) at conferences	-	20,000	20,000	10,000	10,000
D 1.1.1	Create and/or maintain social media channels (e.g., Facebook, Twitter, ...)	-	20,000	20,000	5,000	15,000
D 1.1.2	Maintain CMS AEMLAP website	2,000	3,000	5,000	5,000	-
D 2.1.1	Organize symposia with AEMLAP focus at international conferences and workshops	-	20,000	20,000	10,000	10,000
D 2.1.2	Increase articles on how to save African-Eurasian migratory landbirds	-	2,000	2,000	2,000	-
D 3.1.1	Develop a media concept for the AEMLAP	2,000	8,000	10,000	10,000	-
Total		10,000	1,359,000	1,369,000	814,000	555,000

9. ANNEXES

Annex 1: Detailed Information on AEML WG POW Activities

A - Habitat Conservation		
Action, Region, Link	Goals, Milestones, Outputs	Organisation, Partners, Key stakeholders
Details for A 1.1: “Demonstrate the importance of measures to improve habitat quality for migratory birds and sustainable livelihoods”		
<p>Action A 1.1.1: The Effects of Sustainable Resource Use on Palearctic Migrants and African Bird Communities in the Sahel Zone of Burkina Faso</p> <p>Region:</p>  <p>Link: -</p>	<p>Goals & Objectives:</p> <ul style="list-style-type: none"> Defining sustainable land use that promotes biodiversity, specifically migratory landbirds Conducting field study in Burkina Faso Building capacity of field technicians and local ornithologists <p>Future Milestones:</p> <ul style="list-style-type: none"> Holding workshop in Western Africa on sustainable agriculture and land use changes <p>Outputs:</p> <ul style="list-style-type: none"> Report on the CMS Workshop on Land Use Policies and Their Effects on Migratory Landbirds in West Africa Abuja Declaration on Sustainable Land Use for People and Biodiversity (2016) 	<p>Lead:</p> <ul style="list-style-type: none"> SOI <p>Partners:</p> <ul style="list-style-type: none"> NGOs (New Tree/Tiipaalga) NATURAMA Burkina Faso <p>Key stakeholders:</p> <ul style="list-style-type: none"> NGOs UNDP, UNCCD Governmental agencies in Burkina Faso
<p>Action A 1.1.2: Birds, Bees & Business - Towards a Rich Landscape for People and Nature</p> <p>Region:</p>	<p>Goals & Objectives:</p> <p>Milestones:</p> <p>Outputs:</p>	<p>Lead:</p> <ul style="list-style-type: none"> Vogelbescherming Nederland <p>Partners:</p> <ul style="list-style-type: none"> Naturama Burkina Faso Cordaid <p>Key stakeholders:</p> <ul style="list-style-type: none"> Range States



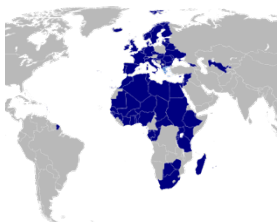
Link:

<https://www.birdsbeesbusiness.nl/en>

Details for A 2.1: “Support the development of habitat action plans (lead: AEWA)”

Action A 2.1.1: Support of the ‘Action Plans for Priority Principal Bird Habitats in the African-Eurasian Flyways’

Region:



Link:

-

Goal:

- Spatial delineation and temporal quantification of the importance of priority principal habitats for migratory birds to aid conservation efforts.

Objectives:

- identify of priority principal habitats for migratory birds
- identify direct and indirect threats to priority principal bird habitats
- develop action plans for priority principal bird habitats
- Identify geographic areas and their temporal relevance that are of high importance for multiple migratory species

Milestones:

- Technical meeting 2021

Lead:

- AEWA

Partners:

- AEML WG
- Raptors MOU range states
- Central Asian Flyway range states
- Migratory Soaring Birds Project (MSB)
- Academic institutions (e.g., project ‘[Inspire4Nature](#)’)

Key stakeholders:

- Conservation planners in all range states

B - Species Conservation

Action, Region, Link

Goals, Milestones, Outputs

Organisation, Partners, Key stakeholders

Details for B 1.1: “Support the implementation of existing CMS SAPs”



Action B 1.1.1: International Single Species Action Plan for the Conservation of the European Turtle Dove *Streptopelia turtur* (2018-2028)


Goal:



- To restore population size of European Turtle Dove to a favourable status in order to be removed from the Globally Threatened categories of the IUCN Red List.

Lead:

Action Plan

<p>Region:</p>  <p>Links: https://www.cms.int/sites/default/files/document/cms_stc48_doc.18_annex2_rev.1_ssap-conservation-european-turtle-dove_e.pdf https://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/docs/20181002%20Final_draft_European%20Turtle-Dove.pdf</p>	<p>High Level Objective:</p> <ul style="list-style-type: none"> To halt the population decline of the European Turtle-dove throughout most of its range, preparing the way for an increase in population sizes within each flyway during the period of the next Action Plan (2028-2038). <p>Milestones:</p> <ul style="list-style-type: none"> AHMM contract with European Commission DG-ENV, issued to consortium of research institutions led by IREC-CSIC based in Spain 4 workshops + 2 information webinars organised in 2020 and 2021 in the framework of the adaptive harvest management mechanism (AHMM) contract Decision by competent authorities in France, Spain and Portugal to not authorise hunting of Turtle Dove in 2021 PhD thesis by Lara Moreno-Zarate “The status and hunting of European Turtle-dove (<i>Streptopelia turtur</i>) in Spain” (2021) represents a breakthrough in knowledge <p>Outputs:</p> <ul style="list-style-type: none"> Action Plan (May 2018; Project LIFE14 PRE/UK/000002) NABU (BirdLife in DE) declared the European Turtle Dove “Bird of the Year 2020” (website). Websites: <ul style="list-style-type: none"> Operation Turtle Dove, UK-based conservation partnership of RSPB, Pensthorpe Conservation Trust and Natural England: https://operationturtledove.org/ Operatie Zomertortel, run by Vogelbescherming Nederland, BirdLife in NL (website). Technical documents & scientific publications: see Annex 2 	<p>Carles Carboneras Carles.Carboneras@rspb.org.uk</p> <p>AHM Beatriz Arroyo Beatriz.Arroyo@uclm.es</p> <p>Carles Carboneras Carles.Carboneras@rspb.org.uk</p> <p>Partners:</p> <ul style="list-style-type: none"> European Commission DG-ENV IREC-CSIC (ES) OFB (FR) BLI FACE RSPB <p>Key stakeholders:</p> <ul style="list-style-type: none"> Range states
<p>Action B 1.1.2: Action Plan for the European Roller <i>Coracias garrulus</i></p> <p>Region:</p> 	<p>Goals and Objectives:</p> <ul style="list-style-type: none"> The overall goal of the Flyway Action Plan for the European Roller (ERFAP), in the long term, is to improve the conservation status of the European Roller in the ERFAP range, achieving a favourable conservation status of the species across its range. Targets: <ul style="list-style-type: none"> Maintain suitable habitats of European Rollers in non-breeding range Significant reduction in mortality due to illegal killing and trapping 	<p>Lead: Béla Tokody tokody.bela@mme.hu</p> <p>Orsolya Kiss orsolyakiss22@mail.com</p> <p>Partners:</p> <ul style="list-style-type: none"> BirdLife Hungary Partners in Africa <p>Key stakeholders:</p> <ul style="list-style-type: none"> Range States

<p>Link: https://www.cms.int/sites/default/files/document/cms_cop12_doc.24.1.9_europe_an-roller-action-plan_e_.pdf</p>	<ul style="list-style-type: none"> ○ Significant reduction in mortality due to electrocution and collision with energy infrastructure ○ Increase efficiency of conservation measures ○ Raise public awareness <p>Milestones:</p> <ul style="list-style-type: none"> ● Project “Conservation of the European Roller (<i>Coracias garrulus</i>) in the Carpathian Basin (LIFE13/NAT/HU/000081)” <p>Outputs:</p> <ul style="list-style-type: none"> ● Action Plan (May 2017) ● Website: https://rollerproject.eu/en ● Facebook: https://www.facebook.com/rollerproject/ ● Scientific publications: see Annex 2 	
<p>Action B 1.1.3: International Yellow-breasted Bunting Action Plan</p> <p>Region:</p>  <p>Link: -</p>	<p>Foreseen Goals & Objectives:</p> <ul style="list-style-type: none"> ● Finalization of the AP and defining management plan <p>Foreseen Milestones:</p> <ul style="list-style-type: none"> ● AEMLAP flagship species conservation road map produced and implemented ● Integration of multiple migratory bunting species (e.g., <i>Emberiza rustica</i>) <p>Outputs:</p> <ul style="list-style-type: none"> ● Approval of action plan ● Scientific publications: see Annex 2 	<p>Lead: Simba Chan simba2018reborn@gmail.com</p> <p>Partners: Co-editors of Action Plan</p> <p>Key stakeholders:</p> <ul style="list-style-type: none"> ● Range States
<p>Action B 1.1.4: Support of the Memorandum of Understanding concerning Conservation Measures for the Aquatic Warbler (<i>Acrocephalus paludicola</i>)</p> <p>Region:</p>	<p>Goals & Objectives:</p> <ul style="list-style-type: none"> ● Aims to safeguard the Aquatic Warbler <i>Acrocephalus paludicola</i>, the rarest migratory songbird of Europe and only globally threatened passerine bird in mainland Europe. <ul style="list-style-type: none"> ○ measures to protect the traditional breeding, staging and wintering areas of the Aquatic Warbler ○ provisions to identify key sites for breeding, migrating and wintering of the Aquatic Warbler ○ detailed proposals for monitoring, research and practical measures for the rehabilitation of Aquatic Warbler populations 	<p>Lead:</p> <ul style="list-style-type: none"> ● Aquatic Warbler MOU Martin Flade martin.flade@lfu.brandenburg.de <p>Partners:</p> <ul style="list-style-type: none"> ● AEML WG ● AEWA <p>Key stakeholders:</p> <ul style="list-style-type: none"> ● Range states

 <p>Link: https://www.cms.int/aquatic-warbler/ https://www.cms.int/aquatic-warbler/sites/default/files/basic_page_documents/AW_MoU_E_with_Amending_protocol_May_2010.pdf</p>	<ul style="list-style-type: none"> ○ measures to prepare national action plans. ○ seek synergies with other migratory species <p>Milestones:</p> <ul style="list-style-type: none"> ● Baltic Aquatic Warbler - Securing Sustainable Farming to Ensure Conservation of Globally Threatened Bird Species in Agrarian Landscape (LIFE09 NAT/LT/000233); 2010-2015 ● LIFE PALUDICOLA - Habitat restoration for the Spring and Autumn migration of the Aquatic Warbler in the Iberian Peninsula (LIFE16 NAT/ES/000168); 2017-21 ● Workshop 'Source areas and stepping-stones in Aquatic Warbler conservation'; 16.-17.03.2021 <p>Outputs:</p> <ul style="list-style-type: none"> ● Aquatic Warbler Flyway Newsletter (Link) ● Scientific publications: see Annex 2 	
<p>Action B 4.1.3: Tackling Illegal Killing, Taking and Trade of Birds (IKB) in Sub-Saharan Africa</p> <p>Region:</p>  <p>Link: https://www.birdlife.org/news/2021/01/21/tackling-illegal-killing-taking-and-trade-of-birds-in-sub-saharan-africa/</p>	<p>Goals & Objectives:</p> <ul style="list-style-type: none"> ● CMS Decisions 12.83 ● CMS Decision 12.88 <p>Foreseen Milestones:</p> <ul style="list-style-type: none"> ● Literature review report on IKB in Sub-Saharan Africa (in preparation) ● Donor funds found to support full scale scientific review for the region ● The scope and scale of IKB in Sub-Saharan Africa is documented and widely shared with various stakeholders <p>Foreseen Outputs:</p> <ul style="list-style-type: none"> ● IKB Literature review report ● IKB Scientific review report 	<p>Lead: Alex Ngari Alex.Ngari@birdlife.org</p> <p>Partners:</p> <ul style="list-style-type: none"> ● BirdLife Partners in Africa, conservation organisations (both non- and governmental) <p>Key stakeholders:</p> <ul style="list-style-type: none"> ● Range states, conservation non-governmental organisations, multilateral environmental treaties
C - Research & Monitoring		
Action, Region, Link	Goals, Milestones, Outputs	Organisation, Partners, Key stakeholders

Details for C 1.1: “Identify species-specific migratory patterns, delineating single- and multi-species hotspots in time and space”

Action C 1.1.1: Individual Tracking Studies (Geocator, GPS)

Region:



Link:

<https://www.vogelwarte.ch/en/projects/bird-migration/phenology-of-migration>

Goal:

- Documentation and better understanding of the current state of the natural history of African-Eurasian landbird migration to aid conservation efforts and track future changes in migratory patterns in the light of global change.

Objectives:

- Improve the knowledge of species and population specific migratory routes, non-breeding areas and temporal site use
- Increase the understanding of the influence of environmental factors on bird migration on an individual level and on a broad scale
- Uncover broad-scale patterns of landbird migration between Eurasia and Africa
- Identify geographic areas and their temporal relevance that are of high importance for multiple migratory species

Milestones:

- Completion of tracking dataset for single species or populations

Outputs:

- Scientific publications: see Annex 2

Lead:

Steffen Hahn

steffen.hahn@vogelwarte.ch

+41 41 462 97 83



Martins Briedis

martins.briedis@vogelwarte.ch

+41 41 462 99 28


Partners:

- Borut Shumberger (European Roller)
 - Christoph Meier (Alpine Swift, Northern Wheatear)
 - Davor Cikovic (Black-headed Bunting, Spanish Sparrow, European Bee-eater)
 - Dmitry Shitikov (Yellow Wagtail)
 - Frédéric Jiguet (European Bee-eater, Great Reed Warbler, European hoopoes, Woodchat shrike, Common rock thrush, Western Orphean warbler)
 - Ingolf Todte (River Warbler, Northern House Martin)
 - Jan von Rönn (Barn Swallow)
 - Mario F. Tizon (Red-rumped Swallow)
 - Martin Schulze (Wryneck)
 - Peter Adamik (Eurasian blackcap, Lesser Grey-shrike, Collared Flycatcher, Common Whitethroat, Marsh Warbler)
 - Petr Prochazka (Great Reed Warbler, Eurasian Reed Warbler, Savi's Warbler, Sedge Warbler, Tree Pipit)
 - Simeon Lisovski (Common Rosefinch)
 - Vaclav Beran (Tawny Pipit)
 - Volker Salewski (Aquatic Warbler)
 - Wieland Heim (Blue-and-white Flycatcher, Bluethroat, Elegant Bunting, Siberian Thrush, Yellow-breasted Bunting)
- And further species of other research groups

		<p>Key stakeholders:</p> <ul style="list-style-type: none"> • Conservation planners • Scientific and Academic Institutions
<p>Details for C 1.2: “Understanding distribution patterns in time and space (monitoring projects)”</p>		
<p>Action C 1.2.2: Africa Bird Atlas Project (ABAP)</p> <p>Region:</p>  <p>Link: http://www.birdmap.africa/</p>	<p>Goals & Objectives:</p> <ul style="list-style-type: none"> • mapping distribution of birds across Africa • capacity building via citizen science project • determining the conservation status of bird species • setting basis for avian conservation planning <p>(Foreseen) Milestones:</p> <ul style="list-style-type: none"> • development of multi-lingual mobile phone App • organized symposia with range states (during EBCC2022) • adding new range states to project. • capacity building in new range states entering the project <p>Outputs:</p> <ul style="list-style-type: none"> • Southern African Bird Atlas Project (SABAP2) (website) • Kenya Bird Map (website) (Facebook) • Nigeria Bird Atlas Project (website) 	<p>Lead: Ulf Ottosson ulfottossonlux@gmail.com</p> <p>Partners:</p> <ul style="list-style-type: none"> • Swiss Ornithological Institute • Biolovision Sàrl • Tropical Biology Association • Arocha Foundation • National Museum of Kenya • Percy Fitzpatrick Institute of African Ornithology • Anastasios P. Leventis Ornithological Research Institute (Nigeria) (APLORI) • BirdLife South Africa • South African National Biodiversity Institute (SANBI) • BirdLasser • Range States <p>Key stakeholders:</p> <ul style="list-style-type: none"> • Range States
<p>Action C 1.2.4: Eurasian-African Bird Migration Atlas Project</p> <p>Region:</p> 	<p>Goal:</p> <ul style="list-style-type: none"> • Documentation of spatial and temporal variation in migration patterns and highlighting the major threats <p>Objectives:</p> <ul style="list-style-type: none"> • Collation of the master dataset of ring recoveries and data validation • Collation and access to tracking data • Development of web tools and solutions will focus on presenting the main Migration Atlas outputs as an integrated website. • Production of migration maps 	<p>Lead: EURING, Migration Atlas Committee</p> <p>Partners:</p> <ul style="list-style-type: none"> • CMS Global Animal Migration Atlas • Inst. of Avian Research, Wilhelmshaven • BTO • Movebank • Further partners see website <p>Key stakeholders:</p>

<p>Link: https://euring.org/research/migration-atlas</p>	<ul style="list-style-type: none"> • An analysis of the current migration seasons of hunted species • An analysis of killing of birds by man with particular reference to illegal killing • Connectivity analyses will be undertaken to inform the conservation of long-distance migrants • Summary of main findings and their implications for conservation <p>Milestones:</p> <ul style="list-style-type: none"> • Completion of tracking dataset for single species or populations <p>Outputs:</p> <ul style="list-style-type: none"> • A continental-scale Migration Atlas (2018) BTO's LifeCycle magazine (link) 	<ul style="list-style-type: none"> • Range States
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Details for C 3.1: "Increased collaboration between AEMLAP and MLSG"

<p>Action C 3.1.1: Increased Collaboration Between AEMLAP and Migrant Landbird Study Group (MLSG)</p> <p>Region:</p>  <p>Link: http://migrantlandbirds.org/</p>	<p>Goals & Objectives:</p> <ul style="list-style-type: none"> • Facilitate collaborations among people working on migrant landbirds whether pure research or their conservation <p>Milestones:</p> <ul style="list-style-type: none"> • Inauguration Wilhelmshaven 2014 • MLSG Symposium EOU 2015 • MLSG Symposium PAOC 2016 • MLSG Symposium EOU 2017 • MLSG Symposium EOU 2019 • MLSG Symposium EOU 2022 • IOC Symposium 2022 • PAOC Symposium 2022 <p>Outputs:</p> <ul style="list-style-type: none"> • Website • MLSG webinars 	<p>Lead: Janne Ouwehand (chair) j.ouwehand@rug.nl</p> <p>See website for further contacts</p> <p>Partners:</p> <ul style="list-style-type: none"> • See website <p>Key stakeholders:</p> <ul style="list-style-type: none"> • Range states • Conservation planners • Scientific and Academic Institutions
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D - Communication, Education and Public Awareness

Action, Region, Link	Goals, Milestones, Outputs	Organisation, Partners, Key stakeholders
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Details for D1.1: Re-activation of Friends of the Landbirds Action Plan (FLAP)

Action D 1.1.1: Friends of the Landbirds Action Plan (FLAP)

Region:



Link:
[website](#)

Goals & Objectives:

- disseminate information about migratory landbirds
- online community made up of the general public, institutions, and decision makers along the flyways
- aiming to improve public awareness and understanding about migratory landbirds and their conservation status.
- platform for exchange of information and knowledge regarding migratory landbirds

Milestones:

- Facebook: <https://m.facebook.com/Friends-of-Landbirds-Action-Plan-FLAP-1112209328916712/>

Outputs: -

Lead:

- SOI AEML WG Coordination Unit

Partners:

-

Key stakeholders:

- Mainly general public
- Decision makers

Details for D2.1: Increase visibility of the AEMLAP in scientific community

Action D 2.1.1: Symposia with AEMLAP Focus at International Conferences

Region:



Link: -

Goals & Objectives:

- Improve visibility of the AEMLAP
- Raise awareness for migratory landbirds
- Organizing topic-specific workshops (e.g., sustainable agriculture & biodiversity)

Milestones:

- EOU symposia
- IOC symposia
- PAOC symposia

Outputs: -

Lead:

- SOI AEML WG Coordination Unit
- MLSG

Partners:

- Depending on conference/workshop

Key stakeholders:

- Scientific & academic institutions
- Practitioners

Annex 2: Technical Documents and Scientific Publications per Action for AEML WG POW Activities

Action B 1.1.1: International Single Species Action Plan for the Conservation of the European Turtle Dove *Streptopelia turtur* (2018-2028)

- Technical documents produced by the AHMM contract team, available on the EC CIRCABC [website](#):
 - Lormée & Carboneras (2021). Turtle Dove migration and delineation of flyways as management units for adaptive harvest management. Report to the European Commission.
 - Bacon et al. (2021). A population dynamics model as a tool for an Adaptive Harvest Management Mechanism for turtle dove: application to the western flyway. Report to the European Commission.
 - Bacon et al. (2021). A population dynamics model as a tool for an Adaptive Harvest Management Mechanism for Turtle Dove – central/eastern flyway (updated). Report to the European Commission.
 - Arroyo et al. (2021). Regulatory approaches to limit Turtle Dove harvest. Report to the European Commission.
 - Sánchez-García et al. (2021). Habitat management carried out by hunters in the western flyway. Report to the European Commission.
 - Sánchez-García et al. (2021). Habitat management carried out by hunters in the central-eastern flyway. Report to the European Commission.
 - Sánchez-García et al. (2021). Examples of habitat management for turtle doves carried out by hunters. Report to the European Commission.
 - Sardà-Palomera et al. (2021). Mechanisms to identify and reward habitat management by hunters in an adaptive harvest management scheme for Turtle Doves. Report to the European Commission.
 - Sánchez-García et al. (2021). Good practices on how to communicate on an adaptive harvest management mechanism. Report to the European Commission.
 - Carboneras et al. (2021). Population objective and alternative management scenarios for the western flyway. Report to the European Commission.
 - Carboneras et al. (2021). Population objective and alternative management scenarios for the central-eastern flyway. Report to the European Commission.
- Scientific publications:
 - Carboneras et al. (2022). The European Turtle Dove in the ecotone between woodland and farmland: multi-scale habitat associations and implications for the design of management interventions. *Journal of Ornithology* 163: 339–355. <https://doi.org/10.1007/s10336-021-01946-1>
 - Moreno-Zarate (2021). The status and hunting of European Turtle-dove (*Streptopelia turtur*) in Spain. PhD thesis, Univ Castilla-La Mancha. <http://hdl.handle.net/10578/28824>
 - Lormée et al. (2020). Assessing the sustainability of harvest of the European Turtle-dove along the European western flyway. *Bird Conservation International* 30(4): 506-521. <https://doi.org/10.1017/S0959270919000479>
 - Moreno-Zarate et al. (2021). Effectiveness of hunting regulations of the conservation of a globally-threatened species: The case of the European turtle-dove in Spain. *Biological Conservation* 256: 109067. <https://doi.org/10.1016/j.biocon.2021.109067>
 - Moreno-Zarate et al. (2020). Spatial heterogeneity in population change of the globally threatened European turtle dove in Spain: The role of environmental favourability and land use. *Diversity and Distributions* 26(7): 818-831. <https://doi.org/10.1111/ddi.13067>
 - Carboneras et al. (in prep.). Modelling population effects of different management scenarios on the European Turtle Dove as a tool for improving decision-making at the flyway scale. 13th Conference of the European Ornithologists' Union (EOU 2022), Giessen DE 14-18 March 2022.

- Carboneras et al. (in prep.). Applying EBBA2 distribution models to conservation: a practical example with European Turtle Dove. 22nd Conference of the European Bird Census Council (EBCC2022), Lucerne CH, 4-8 April 2022.

Action B 1.1.2: Action Plan for the European Roller *Coracias garrulus*

- Scientific publications:
 - Kiss et al. (2020). Potential enlargement of the European roller's breeding range in the Carpathian Basin. *Journal for Nature Conservation* 56: 125841. <https://doi.org/10.1016/j.jnc.2020.125841>
 - Kiss et al. (2020). Past and future climate-driven shifts in the distribution of a warm-adapted bird species, the European Roller *Coracias garrulus*. *Bird Study* 67(2): 143-159. <https://doi.org/10.1080/00063657.2020.1784842>
 - Catry et al. (2019). Combining stable isotope analysis and conventional techniques to improve knowledge of the diet of the European Roller *Coracias garrulus*. *Ibis* 161(2): 272-285. <https://doi.org/10.1111/ibi.12625>
 - Finch et al. (2019). Context-dependent conservation of the cavity-nesting European Roller. *Ibis* 161(3): 573-589. <https://doi.org/10.1111/ibi.12650>
 - Monti et al. (2019). Nest box selection and reproduction of European Rollers in Central Italy: a 7-year study. *Avian Research* 10(1): 1-12. <https://doi.org/10.1186/s40657-019-0150-0>
 - Nebel et al. (2019). Witnessing extinction: Population genetics of the last European Rollers (*Coracias garrulus*) in Austria and a first phylogeographic analysis of the species across its distribution range. *Journal of Zoological Systematics and Evolutionary Research* 57(2): 461-475. <https://doi.org/10.1111/jzs.12256>
 - Rodriguez-Rui et al. (2019). Important areas for the conservation of the European Roller *Coracias garrulus* during the non-breeding season in southern Africa. *Bird Conservation International* 29(1): 159-175. <https://doi.org/10.1017/S095927091800014X>
 - Kiss et al. (2017). The effectiveness of nest-box supplementation for the conservation of European Rollers (*Coracias garrulus*). *Acta Zoologica Academiae Scientiarum Hungaricae* 63(1): 123-135. http://actazool.nhmus.hu/63/1/ActaZH_2017_Vol_63_1_123.pdf
 - Catry et al. (2017). Landscape determinants of European roller foraging habitat: implications for the definition of agri-environmental measures for species conservation. *Biodiversity and Conservation* 26(3): 553-566. <https://doi.org/10.1007/s10531-016-1241-4>
 - Kiss & Tokody (2017). Distribution, population changes and conservation of the European Roller (*Coracias garrulus*) in Hungary. *Aquila* 124: 75-90. <https://rollerproject.eu/sites/default/files/124-106-coracias.pdf>

Action B 1.1.3: International Yellow-breasted Bunting Action Plan

- Scientific publications:
 - Collet & Heim (2022) Differences in stopover duration and body mass change among *Emberiza* buntings during autumn migration in the Russian Far East. *Journal of Ornithology* 163: 779-789. <https://doi.org/10.1007/s10336-022-01976-3>
 - Beermann et al. (2021) Range-wide breeding habitat use of the critically endangered Yellow-breasted Bunting *Emberiza aureola* after population collapse. *Ecology and Evolution* 11: 8410-8419. <https://doi.org/10.1002/ece3.7668>
 - Heim et al. (2021) East Asian buntings: Ongoing illegal trade and encouraging conservation responses. *Conservation Science and Practice* 3(6): e405. <https://doi.org/10.1111/csp2.405>
 - Heim et al. (2020) Using geolocator tracking data and ringing archives to validate citizen-science based seasonal predictions of bird distribution in a data-poor region. *Global Ecology and Conservation* 24: e01215. <https://doi.org/10.1016/j.gecco.2020.e01215>

Action B 1.1.4: Memorandum of Understanding concerning Conservation Measures for the Aquatic Warbler (*Acrocephalus paludicola*)

- Scientific publications:

- Jakubas & Lazarus (2020). Autumn migration strategy and stop-over sites of the globally threatened Aquatic Warbler *Acrocephalus paludicola* on the Atlantic flyway migration route. *Acta Ornithologica* 55(1): 23-37. <https://doi.org/10.3161/00016454AO2020.55.1.003>
- Salewski et al. (2019). Identifying migration routes and non-breeding staging sites of adult males of the globally threatened Aquatic Warbler *Acrocephalus paludicola*. *Bird Conservation International* 29(4): 503-514. <https://doi.org/10.1017/S0959270918000357>
- Pacyna et al. (2017). Mercury contamination, a potential threat to the globally endangered aquatic warbler *Acrocephalus paludicola*. *Environmental Science and Pollution Research* 24(34): 26478-26484. <https://doi.org/10.1007/s11356-017-0201-1>

Action C 1.1.1: Identify species-specific migratory patterns, delineating single- and multi-species hotspots in time and space

- Scientific publications (selection, see also [website](#)):
 - Briedis et al. (2020). Broad-scale patterns of the Afro-Palaeartic landbird migration. *Global Ecology and Biogeography* 29(4): 722-735. <https://doi.org/10.1111/geb.13063>
 - Hahn et al. (2020). Range-wide migration corridors and non-breeding areas of a northward expanding Afro-Palaeartic migrant, the European Bee-eater *Merops apiaster*. *Ibis* 162(2): 345-355. <https://doi.org/10.1111/ibi.12752>
 - Briedis et al. (2019). A full annual perspective on sex-biased migration timing in long-distance migratory birds. *Proceedings of the Royal Society B* 286: 20182821. <http://dx.doi.org/10.1098/rspb.2018.2821>
 - Briedis et al. (2018). Linking events throughout the annual cycle in a migratory bird—non-breeding period buffers accumulation of carry-over effects. *Behavioral Ecology and Sociobiology* 72(6): 1-12. <https://doi.org/10.1007/s00265-018-2509-3>
 - Briedis et al. (2018). Loop migration, induced by seasonally different flyway use, in Northern European Barn Swallows. *Journal of Ornithology* 159: 885-891. <https://doi.org/10.1007/s10336-018-1560-1>
 - Dhanjal-Adams et al. (2018). Spatiotemporal Group Dynamics in a Long-Distance Migratory Bird. *Current Biology* 28(17): 2824-2830. <https://doi.org/10.1016/j.cub.2018.06.054>
 - Meier et al. (2018). What makes Alpine swift ascend at twilight? Novel geolocators reveal year-round flight behaviour. *Behavioral Ecology and Sociobiology* 72(3): 1-13. <https://doi.org/10.1007/s00265-017-2438-6>
 - Briedis et al. (2017). Cold spell en route delays spring arrival and decreases apparent survival in a long-distance migratory songbird. *BMC Ecology* 17(1): 1-8. <https://doi.org/10.1186/s12898-017-0121-4>
 - Van Wijk et al. (2017). Dependencies in the timing of activities weaken over the annual cycle in a long-distance migratory bird. *Behavioral Ecology and Sociobiology* 71(4): 1-8. <https://doi.org/10.1007/s00265-017-2305-5>
 - Bauer et al. (2016). Timing is crucial for consequences of migratory connectivity. *Oikos* 125(5): 605-612. <https://doi.org/10.1007/s00265-017-2305-5>
 - Liechti et al. (2015). Timing of migration and residence areas during the non-breeding period of barn swallows *Hirundo rustica* in relation to sex and population. *Journal of Avian Biology* 46(3): 254-265. <https://doi.org/10.1111/jav.00485>
 - Hahn et al. (2014). Variable detours in long-distance migration across ecological barriers and their relation to habitat availability at ground. *Ecology and Evolution* 4(21): 4150-4160. <https://doi.org/10.1002/ece3.1279>
 - Bächler et al. (2010). Year-Round tracking of small Trans-Saharan migrants using light-level geolocators. *PLoS ONE* 5(3): e9566. <https://doi.org/10.1371/journal.pone.0009566>