



**4<sup>th</sup> SESSION OF THE MEETING OF THE PARTIES**  
15 – 19 September 2008, Antananarivo, Madagascar

*“Flyway Conservation at Work – Review of the Past, Vision for the Future”*

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**DRAFT REVISED FORMAT FOR  
AEWA SINGLE SPECIES ACTION PLANS**

**Introduction**

Since its entry into force in 1999 AEWA has compiled and approved eight Single Species Action Plans and another seven are being submitted for approval by MOP4. The format for SSAP which is currently used was developed by BirdLife International and was approved by MOP2 in September 2002. Useful experience was gained during SSAP preparation processes and during their implementation. It was therefore suggested that the SSAP format would benefit from a revision.

This work was commissioned to BirdLife International, which also involved other organisations with experience in preparation and implementation of AEWA SSAP. The present document was compiled by Boris Barov (BirdLife International) with contributions from Baz Hughes and Peter Cranswick (WWT), Szabolcs Nagy (Wetlands International), Nicola Crockford (RSPB) and Umberto Gallo-Orsi (Rubicon Foundation).

The draft revised SSAP format aims at shortening the actual plan, which will, in turn, make it a simpler, more readable and comprehensible document. Much of the background information will be moved to annexes and whenever possible they will be uploaded and maintained in the internet environment.

The draft revised SSAP format was consulted with and commented by the Technical Committee and was endorsed by the Standing Committee at its 5<sup>th</sup> meeting in June 2008 for submission to MOP4.

**Action requested from the Meeting of the Parties**

The Meeting of the Parties is invited to review the revised SSAP format and approve it to supersede the former version of the SSAP format approved at MOP2.

**Revised Format for the  
AEWA International Single Species Action Plan**

Prepared by:  
BirdLife international

With contributions from:  
Wetlands International, Wildfowl & Wetlands Trust, Rubicon Foundation

For the Secretariat of the  
Agreement on the Conservation of African-Eurasian Migratory Waterbirds

July 2008

## **Introduction to the revised Single Species Action Plan format**

International Single Species Action Plans are the key instrument developed under AEWA for the purpose of implementing coordinated measures to restore and/or maintain migratory waterbird species in favourable conservation status.

In 2002, the AEWA Secretariat requested BirdLife International to develop a format for International Single Species Action Plans drawn up under the Agreement. The SSAP developed then has been in use for five years. Fifteen species have been subject to action planning using the SSAP format. In addition, the format has been widely adopted and used by international organisations (such as the EU). Thus, considerable practical experience in SSAP development, implementation, monitoring, evaluation and revision has been accumulated, which allows a critical review of the process and the document template to be made.

In 2008 the AEWA Secretariat asked BirdLife International to evaluate the performance and revise the SSAP format, based on their experience. A key group of representatives of BirdLife International, Wetlands International, Wildfowl & Wetlands Trust and the Rubicon Foundation gathered in February 2008 in Brussels to undertake this review.

Following this meeting a revised version of the SSAP format, with detailed Guidelines to support its users was developed.

The revised SSAP format is simpler, clearer and will lead to more focused action plans, listing a coherent set of actions based on sound logic.

The descriptive sections of the SSAP have been shortened and simplified, in order to concentrate on essential baseline information about the species' life history, ecology, conservation status and measures. Other documents (*eg* Conservation Status Assessment Reports and scientific articles) providing more detailed background information can also be referred to in the SSAP. In all cases, such documents should be mentioned in the list of references.

The SSAP format follows a log-frame approach, which has been simplified to the basic components in order to make it as easy as possible for planners and those who implement, monitor and update the plan. The threat section and the framework for action are closely related and follow a cause-effect logical link. Therefore actions lead to results that will play a key role for achieving the plan objectives. Action and result priorities are determined from the threat prioritization, which is based on the level of impact of threats on the

population.

Acknowledgements:

Thanks to Szabolcs Nagy (WI), Baz Hughes and Peter Cranswick (WWT), Nicola Crockford (RSPB), Umberto Gallo-Orsi (Rubicon Foundation) for their useful contribution to the revision process and for sharing their experience with action plans. Thanks also to all compilers and reviewers of action plans that have worked with BirdLife International and other organisations in developing this new SSAP format.

Special thanks to Sergey Dereliev (AEWA) for his guidance and support for the SSAP process and for this revision.

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*Front Cover*

- International single species action plan for the *English name /scientific name/ (also mention for which sub-species or population if relevant)*
- Portrait of species
- Logos

*Inside Front cover*

- Name of institution that commissioned the plan, together with any other funders supporting the planning process.
- Compiler(s) including contact details
- List of contributors
- Date of adoption (and number of edition if not the first edition)
- Lifespan of plan
- Milestones in the production of the plan
- Name and contact details of official international species working group or other existing species working groups and a message “Please, send any additional information or comments regarding this action plan to this working group, email: xxxxx” or specify other more appropriate contact, giving email address.
- Recommended citation including ISBN.

*Geographical scope of the action plan*

*Map* based on political map with state boundaries, and shaded to indicate breeding, wintering and passage range states where the action plan should be implemented.

**Table 1 Range states for the species, the ones in bold being those in which the Action Plan should be implemented**

**Breeding**

*List of countries*

**Migration**

*List of countries*

**Wintering**

*List of countries*

## **FOREWORD**

If appropriate, *eg* to enhance buy-in and implementation of the plan by all stakeholders, a foreword by one or more relevant officials or key stakeholder representatives could be included.

## **0 - EXECUTIVE SUMMARY**

- Conservation status (Global, Regional and sub-regional (*eg* EU) according to IUCN Red List, BirdLife International and any other key references such as Wetlands International WPE) and reason for it, *eg* moderate decline.
- International legal status
- Population delineation for species with several populations, or where plan concerns just one of several populations (*eg* Icelandic Whooper Swan)
- Brief summary of population size and trend, geographic distribution, habitats and movements
- Principal threats affecting the species
- Goal of plan
- Objectives and top priority actions

## **1 - BIOLOGICAL ASSESSMENT**

### **Taxonomy and biogeographic populations**

- Notes (where relevant) explaining the taxonomic status of the species /sub-species/biogeographic population dealt with by the action plan.

### **Distribution throughout the annual cycle**

- Very brief description of distribution and movements, including info on timing and location of breeding, spring migration and moulting etc.
- Country by country data provided in Figure 1 and Table 1.

### **Habitat requirements**

- Brief description of the habitat used by the species.
- Breeding (including nest site) and non breeding habitats used
- Feeding habitats and diet
- Habitat description could include also important habitat requirements for the species, if these are known.

### **Survival and productivity**

- Summary of available information (figures, trends) on generation length, age of first breeding, clutch size, productivity, survival of the age classes (adult, juvenile, chick, nest) and factors affecting it.

**Population size and trend**

- Ideally for each biogeographic population, current population and historical and recent trends in population size and range (breeding, wintering, migration).

**Table 2 Population size and trend by country**

Country	Breeding numbers	Quality	Year(s) of the estimate	Breeding population trend in the last 10 years (or 3 generations)	Quality	Maximum size of migrating or non breeding populations in the last 10 years (or 3 generations)	Quality	Year(s) of the estimate
<i>Country 1</i>								
<b>Overall</b>								

**Notes**

- ✓ **Quality: Good (Observed)** = based on reliable or representative quantitative data derived from complete counts or comprehensive measurements.  
**Good (Estimated)** = based on reliable or representative quantitative data derived from sampling or interpolation.  
**Medium (Estimated)** = based on incomplete quantitative data derived from sampling or interpolation.  
**Medium (Inferred)** = based on incomplete or poor quantitative data derived from indirect evidence.  
**Poor (Suspected)** = based on no quantitative data, but guesses derived from circumstantial evidence.

## 2 - THREATS

### General overview

- A paragraph summarizing the most important threats, their impact on the population and the demographic mechanisms through which they operate.

### List of critical and important threats

- Follow a descending priority order of threats, starting with the most important.

Name of threat  
[Description]

Importance: (critical, high, medium, low, local, unknown)  
*The importance of each threat is given for the global population (and/or each biogeographical population dealt with in the action plan).*

- A full account of threats at national and biogeographical level should also be given as Annex 1.

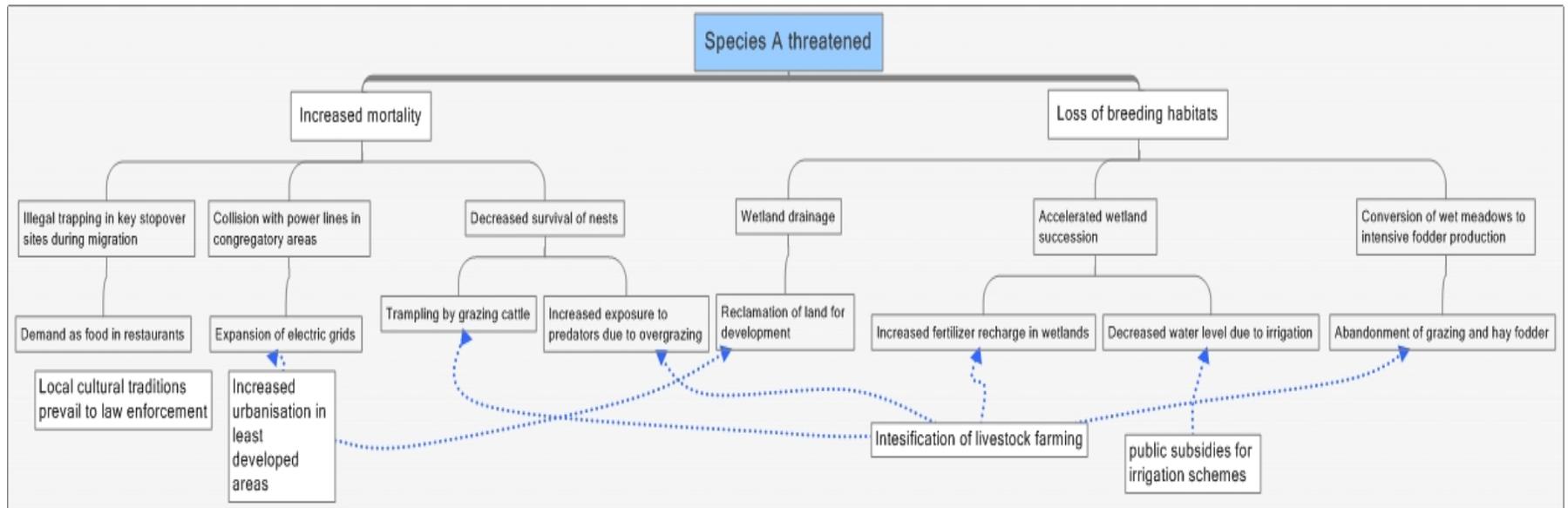
### Problem tree

- The problem tree should be included as a figure.
- It should be made clear and focused, covering the critical and important threats, not all threats.
- Threats that affect distinct biogeographical populations differently should be flagged up in the problem tree accordingly, showing to which biogeographic population they refer.
- An example of a problem tree is given as Figure 2.

### Population Viability Analysis

- A summary paragraph of the main findings of PVA, if available.
- If possible, a PVA should be developed for the species/population and used during SSAP preparation process to assess the importance of threats according to their effects on the population.
- It is recommended to use the simplest PVA sufficient for the problem in question.
- PVA can also highlight knowledge gaps about the population parameters or species' biology.

**Figure 2 Problem tree (example)**



Level 1: Mechanism through which the threats operate

Level 2: Specific threats

Level 3: Immediate causes of threats

Level 4: Root causes of threats

### 3 - POLICIES AND LEGISLATION RELEVANT FOR MANAGEMENT

#### **International conservation and legal status of the species**

- Global Red List Status and criteria fulfilled
- African-Eurasian Migratory Water bird Agreement (column and criteria)
- Bonn Convention Appendix
- Convention on International Trade in Endangered Species Appendix
- Other conventions / agreements or regional prioritisation should be used as appropriate (Bern Convention Appendix, Barcelona Convention, etc)
- EU Birds Directive Annex
- Regional Red List Statuses<sup>1</sup>

#### **National policies, legislation and ongoing activities**

- National nature conservation and other related legislation
- Sectoral policies and programmes (eg Rural Development Plans, Forestry Development Plans, etc)
- Recent or current conservation projects aimed at the species

### 4 - FRAMEWORK FOR ACTION

#### **Goal**

- This is the overall long-term goal to which the plan will contribute, but not achieve on its own. It is only one statement. In most cases, one of the two suggested goals could be used:
  - 1) Remove the species/population from the IUCN Red List/AEWA Column A, Category 1, 2 or 3 (for Red List species)
  - 2) Restore species to Favourable Conservation Status (for non Red List species)

#### **Objectives**

*Objective 1*

*Objective 2*

[usually one to three objectives]

#### **Results**

- Results to be numbered following the objectives.

*Result 1.1*

*Result 1.2*

[usually three to six results]

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<sup>1</sup> eg European and EU status according to BirdLife International

## **Actions**

- Actions to be numbered following the results.

*Action 1.1.1*

*Action 1.2.1*

*Action 1.2.2*

Actions should be prioritized as:

- Essential
- High
- Medium
- Low

**Time scales** should be attached to each Action using the following scale:

- Immediate: completed within the next year
- Short: completed within the next 3 years
- Medium: completed within the next 5 years
- Long: completed within the next 10 years
- Ongoing: currently being implemented and should continue
- Completed: completed during preparation of the SSAP

- Table 3 presents the results under each objective, followed by the actions grouped by results. Under each action, a list of countries (using ISO codes for short if many) where its implementation is relevant.
- Against each action, the organisations responsible for its implementation are also listed, as concretely as possible.

**Table 3** Example actions corresponding to the results and ranked according to their importance, following from the problem tree.

<i>Objective:</i> Negative population trend reversed to positive.				
<i>Result</i>	<i>Action</i>	<i>Priority</i>	<i>Time scale</i>	<i>Organisations responsible</i>
Mortality of chicks in breeding areas reduced by 20%	<ul style="list-style-type: none"> <li>• Actions to reduce clutch and chick mortality clarified and widely advertised to farmers / land-users, firstly in protected areas Applicable to: <b>AU, HU, CZ, SK</b></li> </ul>	<ul style="list-style-type: none"> <li>• High</li> </ul>	<ul style="list-style-type: none"> <li>• Short</li> </ul>	Research institutes and governmental agencies developing agri-environmental measures
	<ul style="list-style-type: none"> <li>• Introduce system to manage grazing pressure in protected areas within tolerance limits of species (1,5 LU/ha) Applicable to: <b>AU, HU, CZ, SK</b></li> </ul>	<ul style="list-style-type: none"> <li>• Medium</li> </ul>	<ul style="list-style-type: none"> <li>• Medium</li> </ul>	Protected area managers
	<ul style="list-style-type: none"> <li>• Favourable habitat management in breeding areas supported through agri-environmental schemes. Applicable to: <b>All countries with breeding populations</b></li> </ul>	<ul style="list-style-type: none"> <li>• Low</li> </ul>	<ul style="list-style-type: none"> <li>• Medium</li> </ul>	Ministries of agriculture and environment
	<ul style="list-style-type: none"> <li>• Breeding success monitored annually Applicable to: <b>All countries with breeding populations</b></li> </ul>	<ul style="list-style-type: none"> <li>• High</li> </ul>	<ul style="list-style-type: none"> <li>• Short, then ongoing</li> </ul>	NGOs and research institutes, protected areas managers

## 5 - REFERENCES

List of the most relevant literature used for the preparation of the action plan.

ANNEX 1

**Threats importance at population/group of countries level**

Type of threat	Population 1	Population 2	Population X
<b>1. Habitat loss/degradation (human induced)</b>	<i>Threat score</i>	<i>Threat score</i>	<i>Threat score</i>
1.1.			
1.2.			
1.3. ...			
<b>2. Direct mortality</b>			
2.1.			
2.2. ...			

*Notes*

- ✓ *The description of threats should reflect the actual understanding of the situation with the species, according to the latest available knowledge and the workshop participants' best judgement. It is not necessary to follow a formal threat classification system. The logical problem analysis and cause-effect relationships among the main threats are the important aspects to focus the plan on.*
- ✓ *Threats are not hierarchical, but clustered according to type of effect.*
- ✓ *Threat score: Critical, High, Medium, Low, Local, Unknown.*

## ANNEX 2

- ✓ Data for this table could be obtained from the BirdLife International World Bird database and checked to be up to date.
- ✓ It should be indicated when the WBDB was accessed {date}.

### Important Bird Areas for the species and their status

Country	International and national name of IBA	Area (ha)	Location		Population		Year	Season	Accuracy	Protected areas name	Type of protected area or international designation	Protection status
			Lat	Long	Min	Max						
Country 1												

#### Notes

- ✓ **Population Min - Max.** For breeding ('season' column), figures are usually given in pairs; for other seasons, figures are given in individuals
- ✓ **Season:** Breeding, Migration, Non breeding visitor (wintering)
- ✓ **Accuracy: Good (Observed)** = based on reliable or representative quantitative data derived from complete counts or comprehensive measurements.  
**Good (Estimated)** = based on reliable or representative quantitative data derived from sampling or interpolation.  
**Medium (Estimated)** = based on incomplete quantitative data derived from sampling or interpolation.  
**Medium (Inferred)** = based on incomplete or poor quantitative data derived from indirect evidence.  
**Poor (Suspected)** = based on no quantitative data, but guesses derived from circumstantial evidence.
- ✓ **Protected Area name** = Nature Reserve, National Park, Ramsar site, etc.
- ✓ **Type of protected area:** IUCN Category
- ✓ **Protection status:** level of overlap between the IBA and a National protected area or International designation.

### ANNEX 3

✓ All tables in this Annex to be filled in advance of workshop by questionnaire

#### National legal status

Country	Legal protection	For game species, give opening/closing dates of hunting season
Country 1		

#### Recent conservation measures

Country	Is there a national action plan for the species?	Is there a national {Species} project / working group?
Country 1		<i>Provide with links only if they exist</i>

#### Ongoing monitoring schemes for the species

Country	Is there a national survey / monitoring programme?	Is there a monitoring programme in protected areas?
Country 1		

#### Overview of the coverage of the species in networks of sites with legal protection status

Country	Percentage of national population included in IBAs	Percentage of population included in Ramsar sites	Percentage of population included in SPAs <sup>1</sup>	Percentage of population included in protected areas under national law
Country 1				

✓ This table could be generated automatically by BirdLife WBDB on request. SSAP compilers may use classes instead of real figures: 0-10% (almost none), 10-50% (less than half), 50-90% (more than half), 90-100% (all)

<sup>1</sup> This is relevant only for European Union member states. Any other regional (legal) protection should be mentioned in next column.

## **GUIDELINES ON PRODUCING AEWA SINGLE SPECIES ACTION PLANS**

### ***Introduction***

These guidelines are intended to support action plan compilers in developing Single Species Action Plans (SSAPs) using the AEWA SSAP format. They follow the structure of the AEWA SSAP format and provide explanatory notes for each section.

The Guidelines can also be used to support the SSAP planning process which leads to development of the action plan document, following eight essential steps:

### **Step Chart**

**Step 1:** Compile a list of experts to be involved and consulted throughout the action plan drafting process.

**Step 2:** Undertake desk research and data collation of the latest available information relevant for sections 1-3 (biological assessment, threats, policies and legislation) of the SSAP.

**Step 3:** Send out materials for preparatory reading by the experts taking part in the SSAP workshop. This information should include the draft texts for sections 1-3, and data tables in its Annexes, draft problem tree and supporting information (eg a population viability analysis).

**Step 4:** Carry out SSAP workshop covering: review of data and draft texts, threats analysis, scoping and contents of the SSAP, including goal, objectives, results, important actions and responsibilities.

**Step 5:** Prepare first draft of the SSAP and send out for consultation to species experts, conservation managers and other relevant experts.

**Step 6:** Incorporate comments from consultation, produce second draft and submit to AEWA Technical Committee.

**Step 7:** Incorporate comments from AEWA Technical Committee and submit for official consultation with the governmental officials in the species Range States (through the AEWA Secretariat).

**Step 8:** Incorporate comments from Range States and submit through the AEWA Secretariat for official adoption by AEWA Meeting of the Parties (or by the AEWA Standing Committee on temporary basis in the interim period before the next session of the Meeting of the Parties).

### *Front Cover*

- International single species action plan for the *English name /scientific name/* (also mention for which sub-species or population if relevant).
- Portrait of species.
- Logos of funders and compilers.

### *Inside Front Cover*

- Name of institution that commissioned the plan, together with any other funders supporting the planning process.
- Compiler(s) including contact details.
- Contributors should be listed alphabetically by country, with a separate category for international contributors. For each contributor indicate organisation, as appropriate, and country.
- Date of adoption (and number of edition if not the first edition).
- The lifespan of the SSAP is set at 10 years or 3 generation lengths for the species concerned (whichever of the two periods is shorter). The rationale behind this time-span is pragmatic. Official adoption and endorsement of action plans often takes from several months to more than a year, and implementation of some measures may require even longer periods (*eg* legislation and policy changes, implementation of large projects such as LIFE in the EU, etc). Experience shows that there had been difficulties in keeping up to date with monitoring and revision of action plans as their number increases. There is also a trade off between the time and effort needed to update the plans and that needed to implement them. Therefore a longer period than the initially intended 3-5 years was deemed necessary.
- Milestones in the production of the plan including details of any workshops held, dates of each draft, dates of approval by the AEWA Technical Committee, notes on special opinions or dissent from Contracting Parties, date of adoption by MOP.
- Name and contact details of official international species working group or other existing species working groups and a message "Please, send any additional information or comments regarding this action plan to this working group, email: xxxxx" or specify other more appropriate contact, giving email address.
- Recommended citation including ISBN.

### *Geographical Scope of the Action Plan*

The geographical scope of the SSAP covers the natural distribution of the biogeographical population for which the plan is developed. It should be presented in a simple and readily understandable way as a map and a table.

1. Map of global distribution indicating countries of occurrence (breeding, and wintering, migration). Countries in which the action plan applies should be indicated with colour/shading – those where the species occurs as a vagrant should be not be included.
2. Table 1 listing the same information entitled '*This plan is relevant for the following states*'. The table should list all countries where the SSAP is relevant, i.e. it has to be implemented by the countries having breeding, wintering or migrating population of the species on regular basis. Additionally, countries in which the species does not regularly occur but where actions are required (e.g. eradicating invasive alien species or countries important for international trade involving the species or where captive breeding programmes are taking place).

### **EXECUTIVE SUMMARY**

The executive summary should be a succinct non-technical version of the whole action plan. It should summarize the most important information that a busy official needs to know about the species in order to prioritise and facilitate implementation of the plan. It should be no longer than two pages, preferably using bullet points and should cover the following:

- Conservation status (global, regional and sub-regional (eg EU) according to IUCN Red List, BirdLife International and any other key references such as Wetlands International WPE) and reason for it (eg moderate decline);
- International legal status under legal instruments and conventions;
- Population delineation for species with several populations, or where the plan concerns just one of several populations (eg Icelandic Whooper Swan);
- Brief summary of population size and trend, geographic distribution, habitats and movements<sup>1</sup>;
- Principal threats affecting the species;
- Goal of the plan;
- Objectives and top priority actions.

### **1 - BIOLOGICAL ASSESSMENT**

This section provides a concise overview of the taxonomy, life history, demography, population trends, distribution and ecology of the species. Summarized information from the most relevant and authoritative sources

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<sup>1</sup> The AEW Conservation Status Report provides population trend estimates of the biogeographical populations and should be used as the reference/starting point: [http://www.unep-awa.org/publications/technical\\_series/ts13\\_conservation\\_status\\_report\\_final.pdf](http://www.unep-awa.org/publications/technical_series/ts13_conservation_status_report_final.pdf)

should be used to describe clearly the key characteristics of the population concerned. Extensive detail should, however, be avoided and graphic presentation should be used wherever possible. Where relevant and necessary, the information included in the overview may be further clarified by results from ringing schemes, satellite telemetry, stable isotope analysis, and distribution surveys.

One or more map(s) of key stages of the life cycle (*eg* breeding and non-breeding distribution, flyways, key stopover sites, historical range) should be included to illustrate the information above (BirdLife produced species' range maps can be used if appropriate).

For plans for species that are huntable in the EU, a web link should be added to the dates of spring migration and breeding on the European Commission website<sup>1</sup>. If the species is hunted, information about the harvested numbers becomes essential for management and should be included, where available<sup>2</sup>.

The following information on population size and trend by country should be presented as Table 2:

- **Breeding numbers.** Specify if pairs or individuals. The same unit should be used for all breeding countries.
- **Quality: Good** = *Reliable quantitative data available (eg atlas, survey or monitoring data) for the whole period and country.* **Medium** = *generally well known, but only poor or incomplete quantitative data available.* **Poor** = *Poorly known with no quantitative data available.* **Unknown** = *information on quality not available.*
- **Breeding population trend** in the last 10 years (or three generations). If possible, provide the actual trend (in %) or use the following (with + or - according to direction): 0-19%; 20-29%; 30-49%; 50-79%; >80% or "unknown" when data is lacking. For some species, actual percentage values may not be known due to insufficient data, and the use of categories should be based on the best available data or expert judgement.
- **Migration or non-breeding numbers:** numbers in individuals.
- Use separate tables for each biogeographic population.

## 2 - THREATS

This section describes the threats and their impact on the population at a global and, where appropriate, biogeographical population level. Where data

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<sup>1</sup> [http://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/key\\_concepts\\_en.htm](http://ec.europa.eu/environment/nature/conservation/wildbirds/hunting/key_concepts_en.htm)

<sup>2</sup> Information from hunters bag statistics schemes is being collected through the ARTEMIS project, coordinated by FACE, and it can be used as a source of such data: <http://www.artemis-face.eu/>

are available, it can also include an overview and relative importance at a country level, for those countries supporting the bulk of the population. Threats should be listed if they are known (or have the realistic potential) to cause population decline. Only those threats for which specific actions will be developed should be described. Threats of more global character (*eg* climate change, avian influenza and others) if important, should be mentioned in the threats overview paragraph. However, the action plan has a limited role to play in addressing global large-scale trends and actions for them should not be included in the document.

Threats should be presented in descending order of priority according to the magnitude of their impact on the population. Hence, their listing in the document is a result of the threat prioritisation process that took part during the development of the action plan, and especially during the action planning workshop.

The table of threat included in Annex 1 should be compiled prior to the SSAP workshop, based on current knowledge collected from the literature and the contributors' input. At the workshop, the threats listed should then be analysed for cause and effect using a participatory *problem-tree* analysis that will focus the action plan on the main threats.

Common sense and best available information should guide the decision-making process when ranking threats. Ideally, threats should be ranked using a quantitative system describing the speed and the magnitude of the caused (likely) decline. However, if precise data on the threat magnitude are not readily available, a decision should be taken based on best available data and expert judgement. Ensuring that the ranking is consistent and correct in relative terms is the important point.

- **Critical:** a factor causing or likely to cause very rapid declines and/or extinction;
- **High:** a factor causing or likely to cause rapid decline leading to depletion;
- **Medium:** a factor causing or likely to cause relatively slow, but significant, declines;
- **Low:** a factor causing or likely to cause fluctuations;
- **Local:** a factor causing or likely to cause negligible declines in small parts of the population;
- **Unknown:** a factor that is likely to affect the species but it is unknown to what extent.

It should not be forgotten that threats often act in synergistic way and may have a cumulative effect. Therefore, it may be difficult to differentiate between them clearly. Detailed knowledge about the species' ecological requirements

and its response to environmental and biotic pressures is needed in order to take the right decisions in threat prioritisation. In some cases, focusing the action plan on counteracting the clearly known threats may be the best way to deal with uncertainty. However, if gaps in knowledge are likely to affect the understanding of the impact of threats, these should be reflected as research actions and should be clarified when revisions of the plan are made. A measure of the level of uncertainty involved with each threat should be indicated in its description.

### **Problem Tree**

Prior to the SSAP workshop the action plan compiler should prepare a draft problem tree, based on the information collected from the contributors and presented in Annex 1. The problem tree helps to explain how threats affect the population and how they are related to their root causes. The tree is built using the cause-effect relationships of threats and their impacts. The workshop participants should analyse the logic of the problem analysis as to make sure it provides a common understanding on the range and importance of threats by the relevant experts.

The figure below provides a generalised example of a problem tree.

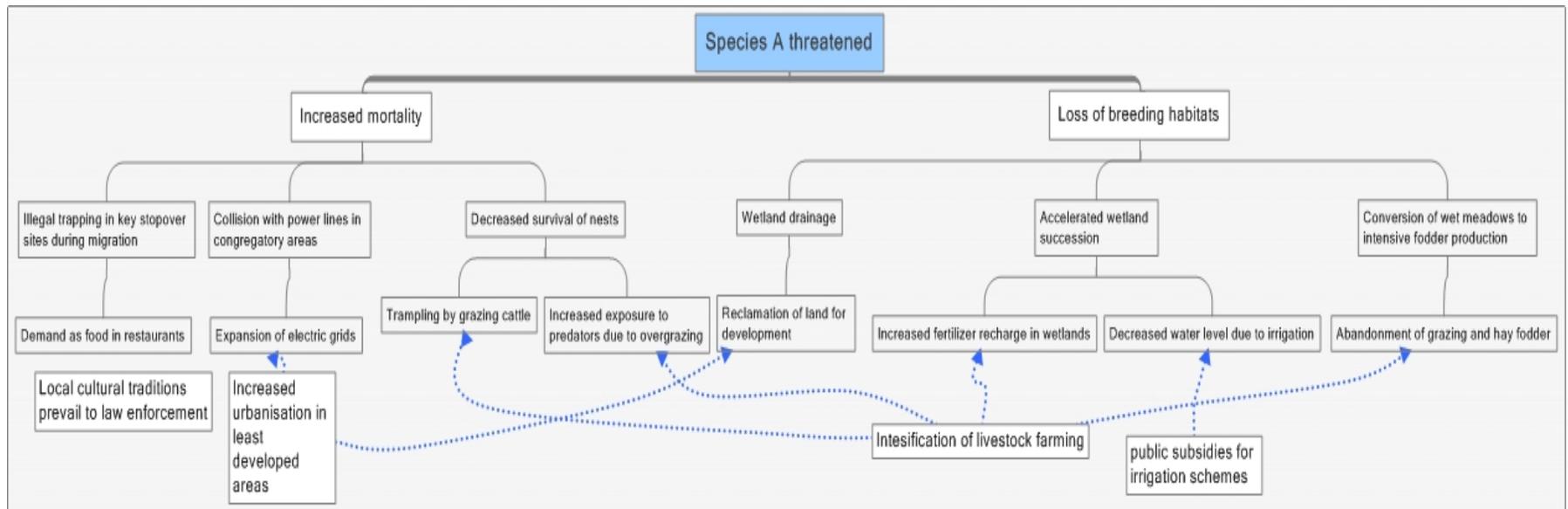
### **Example problem tree**

The SSAP workshop discussions on the draft problem tree aim to reveal the key threats affecting the species. Once these have been agreed, the root causes of all of the effects should be determined, which may for example include socio-economic factors, acting policies or political processes. Although habitat loss and degradation are the major causes for the decline of many populations, this form of analysis often indicates that the immediate reasons for the decline are different. Therefore, indirect threats may manifest themselves through affecting one or the other demographic parameters, such as increased mortality rate among adults or young, reduced productivity or low recruitment of immature individuals.

Some root causes such as policy issues do not directly relate to the threats, because their mechanisms are complex and indirect. Therefore, in problem analysis compilers should encourage the use of relevant policy specialists (such as agriculture, forestry, rural development, etc).

The final problem tree should be included as Figure 2 in the SSAP.

## Problem tree (example)



Level 1: Mechanism through which the threats operate

Level 2: Specific threats

Level 3: Immediate causes of threats

Level 4: Root causes of threats

### **Population Viability Analysis**

Threats affect the population through different mechanisms: they may increase mortality, decrease breeding success or deprive the species from suitable habitats, etc. A PVA may be very helpful in identifying the demographic mechanisms that operate and prioritizing the threats accordingly, based on their relative contribution to the population status and trend.

- If a PVA is to be used, it should be obtained from a relevant scientific source or developed for the species/population prior to the SSAP workshop.
- The simplest PVA sufficient for the problem in question should be used.
- PVA can also highlight knowledge gaps about the population parameters or species biology that can be further researched/monitored.

### **3 - POLICIES AND LEGISLATION RELEVANT FOR MANAGEMENT**

This section gives a list of the international legal designations and an overview of relevant international and national policies that have direct effect on the species.

The overview analysis, combined with the information on distribution, population trends and threats, provides the basis for identification of the objectives and actions of the plan. It should highlight the gaps in legal protection, conservation actions and policies in all range states. It should lead to the proposed actions needed to fill them.

The overview is based on country by country listing that covers:

- legal status (including hunting statistics and hunting season),
- recent conservation measures (including national action plans, national species working groups),
- monitoring (including national or regional monitoring programmes and monitoring in protected areas) and
- coverage with site protection measures (including the most important sites for the species, their legal protection status, and ideally the proportion of the national population covered by IBAs/protected areas).

#### **International conservation and legal status of the species**

The relevant international conservation status lists and legal instruments applicable to the species should be presented.

- Global Red List status and criteria fulfilled
- African-Eurasian Migratory Waterbird Agreement (column and criteria)
- Bonn Convention Appendix
- Convention on International Trade in Endangered Species Appendix
- Other conventions / agreements or regional prioritisation should be used as appropriate (Bern Convention Appendix, Barcelona Convention, etc)
- EU Birds Directive Annex
- Regional Red List statuses<sup>6</sup>

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<sup>6</sup> Eg European and EU status according to BirdLife International

### **National policies, legislation and ongoing activities**

This section provides an overview of the information on legal status, conservation measures, monitoring and site protection measures carried out for the species on a national level in the range states. The country by country information is given as a table in Annex 3.

### **4 - FRAMEWORK FOR ACTION**

This part of the document contains the strategy of the action plan – its goal, objectives, results and actions. The objectives set the biological targets for recovery of the population. The results correspond to those factors that need to be in place in order to eliminate the threats and improve the situation for the species. The actions necessary to achieve these results, along with their priority ratings, timescales and implementing organisations are also presented here.

The objectives, result, actions, priorities, timescales and implementing organisations should be included in Table 3. Under each action, the countries where implementation is relevant should be listed (using ISO codes<sup>7</sup> for short if many).

Standardization of terminology is necessary in order to maintain coherence between different action plans and to help implementation, evaluation and revision. The following terminology is considered to be the most appropriate for the SSAP:

#### **Goal**

- This is the overall long-term goal to which the plan will contribute, but not achieve on its own. It is only one statement.
- In most cases, one of the two suggested goals could be used:
  - 1) Remove the species/population from the IUCN Red List/AEWA Column A, Category 1, 2 or 3 (*for Red List species*)
  - 2) Restore species to Favourable Conservation Status (*for non Red List species*)

#### **Objectives**

- Objectives of the plan should be set as targets for population recovery, expressed in quantitative terms (population numbers, population trend) that the SSAP will achieve both within and after its life time. They should be expressed as measurable numerical population parameters (*eg* number of breeding pairs, number of individuals, population growth rate, etc).
- Objectives should be SMART (Specific, Measurable, Achievable, Realistic, Timebound). If appropriate, a breakdown of the objectives as specific sub-population targets may be allocated by country in a table.

#### **Results**

- Results are the underlying conditions that need to be achieved in order to accomplish each objective.

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<sup>7</sup> [http://www.iso.org/iso/country\\_codes/iso\\_3166\\_code\\_lists/english\\_country\\_names\\_and\\_code\\_elements.htm](http://www.iso.org/iso/country_codes/iso_3166_code_lists/english_country_names_and_code_elements.htm)

- Results are the direct consequences of successfully implemented actions.
- Results should address each important threat identified in the threat analysis. For example the result *“Annual adult survival rate increased to 75%”* corresponds to the threat *“An estimated 60% of adults die each year due to electrocution and poisoning.”* Other example results could be *“Average breeding success increased to YY fledged young per pair”*.
- Results can also be planned for addressing important organisational and research issues. For example, *“Distribution and numbers of the population are known by DATE”*.
- To avoid poorly focused plans, it is recommended to limit the number of results to 3 – 6.
- Results should be ranked to follow a descending order of priority within each objective.

### **Actions**

- Actions are implemented in order to achieve the results. Justification for each action should be self-evident from the way it is formulated.
- Actions should address: the most important threats, gaps in knowledge and organisational issues ensuring successful implementation of the SSAP (eg establishment of International Species Working Groups and National Species Working Groups).
- As with threats, a priority for each action should be stated (Essential, High, Medium, Low), using an agreed priority ranking process and the results of the SSAP workshop.

### **How to decide the priority order of actions?**

Actions should be prioritized at the SSAP workshop in a logical way. The decision-making rationale may differ from species to species, but the general principle should be that actions are ranked according to their contribution to achieving the results and thus meeting the SSAP objectives. Prioritization of actions should also take into account biological needs, urgency, likelihood of success, and other factors that may vary according to species. In principle, highest priority actions should be the ones that address the threats with highest rank and this should correspond to the conclusions of the threats analysis and the objectives of the plan.

**Time scales** should be attached to each Action using the following scale:

- Immediate: completed within the next year.
- Short: completed within the next 3 years.
- Medium: completed within the next 5 years.
- Long: completed within the next 10 years.
- Ongoing: currently being implemented and should continue.
- Completed: completed during preparation of the SSAP.

**Table 1** Example actions corresponding to the results and ranked according to their importance, following from the problem tree.

<i>Objective:</i> Negative population trend reversed to positive.				
<i>Result</i>	<i>Action</i>	<i>Priority</i>	<i>Time scale</i>	<i>Organisations responsible</i>
Mortality of chicks in breeding areas reduced by 20%	<ul style="list-style-type: none"> <li>• Actions to reduce clutch and chick mortality clarified and widely advertised to farmers / land-users, firstly in protected areas Applicable to: <b>AU, HU, CZ, SK</b></li> </ul>	<ul style="list-style-type: none"> <li>• High</li> </ul>	<ul style="list-style-type: none"> <li>• Short</li> </ul>	Research institutes and governmental agencies developing agri-environmental measures
	<ul style="list-style-type: none"> <li>• Introduce system to manage grazing pressure in protected areas within tolerance limits of species (1,5 LU/ha) Applicable to: <b>AU, HU, CZ, SK</b></li> </ul>	<ul style="list-style-type: none"> <li>• Medium</li> </ul>	<ul style="list-style-type: none"> <li>• Medium</li> </ul>	Protected area managers
	<ul style="list-style-type: none"> <li>• Favourable habitat management in breeding areas supported through agri-environmental schemes. Applicable to: <b>All countries with breeding populations</b></li> </ul>	<ul style="list-style-type: none"> <li>• Low</li> </ul>	<ul style="list-style-type: none"> <li>• Medium</li> </ul>	Ministries of agriculture and environment
	<ul style="list-style-type: none"> <li>• Breeding success monitored annually Applicable to: <b>All countries with breeding populations</b></li> </ul>	<ul style="list-style-type: none"> <li>• High</li> </ul>	<ul style="list-style-type: none"> <li>• Short, then ongoing</li> </ul>	NGOs and research institutes, protected areas managers

## 5 - REFERENCES AND THE MOST RELEVANT LITERATURE

The reference list, in alphabetical order to the format given below, should contain only the key documents referred to in the action plan text, not general literature on the species. Titles of journals should be given in full. Ideally, information from peer reviewed sources should be preferred to “grey literature” and personal contributions. This will enhance the credibility and objectivity of the SSAP. However, not all information needed for the action plans is officially published. In such cases compilers should judge the available information carefully and responsibly. Information stored in institutional databases should also be included in the list of references, with indication of the source and date of access to the database.

The format for presenting the list of references should follow this example:

- Aunins, A. 2001a. Changes of lekking activity of Great Snipe during course of night and season in Latvia: recommendations for methods of searching for Great snipe leks and estimating lek size. Putni daba Supplement 1: 13 - 26
- Aunins, A. 2001b. Territorial distribution, numbers and habitat selection of Great Snipe in Latvia: historical information and the current situation (1999 - 2001). Putni daba Supplement 1: 4 - 12.
- BirdLife International. 2000. *Threatened Birds of the World*. Spain and Cambridge, U.K.
- Devort, M. 2000. Some methodological aspects of snipes research: The contribution of long term wing collection and analysis of Common snipe (*Gallinago gallinago*), Jack snipe (*Lymnocyptes minimus*) and Great snipe (*Gallinago media*) to the monitoring of their populations. OMPO Newsletter No 21: 5 - 24.
- Garvis, G. 2000. The National Action Plan for the Great Snipe (*Gallinago media*) conservation in Ukraine. In: The National Action Plans for the Globally threatened bird species. Ukrainian Society for the Protection of Birds (USPB). SoftArt Press, Kyiv. pp. 180-189. (in Ukrainian).