

Eastern Imperial Eagle *Aquila heliaca*

Background

The European Action Plan (Heredia, 1996) was developed in 1993 and adopted in 1996 by the European Union and the Bern Convention. The action plan has not been revised since then. Its implementation has been reviewed in 2000 (Gallo-Orsi, 2001) and 2004 (Nagy & Crockford, 2004) by BirdLife. The geographical scope of the action plan covers the entire European breeding range as well as the Middle East. The present implementation review covers Armenia, Azerbaijan, Bulgaria, Croatia, Cyprus, Georgia, Greece, Hungary, Macedonia, FYR, Montenegro, Romania, Serbia, Slovakia, Turkey and Ukraine.

General overview

The SAP has been well implemented on average (AIS=2.2) with notable progress in the Pannonian countries, Bulgaria and Ukraine where the species has seen continuous population recovery since 2000. Some of the key threats have been addressed by improved species protection and with designation of protected areas and through active conservation actions on the ground such as nest guarding, prevention of disturbance and management of the habitats and threats in the breeding areas (including insulation of powerlines, prevention of poisoning and protection of nesting trees from cutting).

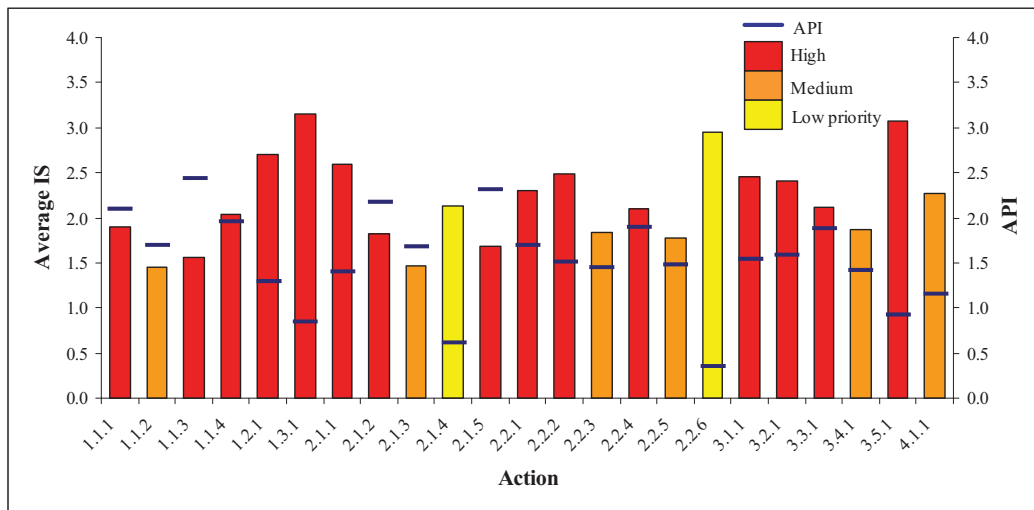


Figure x Average implementation score (IS) and Action Priority Index (API) for each Action listed in the Eastern Imperial Eagle species action plan. Colours represent Priority Score.

Status review

The global population is probably only a few thousand pairs strong, the majority breeds in Russia (total 900-1000 pairs⁸⁹) and Kazakhstan (750-800 pairs⁹⁰). A total population of

⁸⁹ Belik *et al.* 2002

1,110-1,624 pairs is estimated in Europe⁹¹. There was a rapid decline in Europe and probably in Asia in the second half of the 20th century. Recently the Central European (Pannonian) population (121-134 pairs mostly in Hungary and Slovakia) has been increasing¹, while the Balkan population (81-126 pairs mostly in Bulgaria and Macedonia⁹²) is apparently stable (although the last proven breeding in Greece took place in 1993).

Table 27 Breeding population estimates by country

Country	Population at the time of the 1996 SAP (pairs)	Year	Population at the 2004 review (pairs)	Year	Current population (breeding pairs)	Year	References ⁹³
Armenia	8-10	1993			0-1	1979-2009	
Austria			1	1998-2002	4-6	2005-2009	
Azerbaijan	35-40	1993			50-150	2007-2010	⁹⁴
Bulgaria	20-25	1993			25-30	2009	⁹⁵
Croatia	1-2	1993			0	2009	
Cyprus	2-4	1993	2-4	1994-2002	0	0	
Czech Republic			1-2	1998-2002	2-3	2009	
Georgia	8-11	1993			10-15	1998-2009	
Greece	0-2	1993	0-1	1995-2000	0-1	2000-2009	
Hungary	34-36	1993	50-65	1998-2002	115-125	2010	
Macedonia FYR	4-6	1993			25	2010	
Romania	10-20	1993			0-5	2010	
Russia	150-300	1995					
Serbia	8-10*	1993			3	2010	
Slovakia	30-35	1993	22-23	2000-2003	45-48	2009	
Turkey	10-50	1993			65-200	2004	
Ukraine	40-50	1993			110-130	2009-2010	

* Yugoslavia in 1996

Objective(s)

1. In the short term, to maintain the present numbers of the Imperial Eagle throughout its present range.
2. In the medium to long term to ensure range expansion.

Evaluation

The short term target of the plan has been achieved as shown by the recovery of the populations in the Carpathian basin and stabilisation and increase of the populations on the Balkans. In addition, the overall situation of the species further East in Ukraine and Russia is relatively stable.

⁹⁰ Bragin 1999

⁹¹ Horváth *et al.*, 2005

⁹² Stoychev *et al.* 2004

⁹³ 2010 estimates provided by the contributors to this review, unless indicated otherwise.

⁹⁴ Horváth *et al.*, 2007

⁹⁵ Demerdziev *et al.* 2008

The long term objective is also nearly met, as the increase of the population has led to recolonisation of former lost range, e.g. in the agricultural lowlands. However, the geographical target of the range expansion objective is not clear. The recolonisation of some of the range countries has not happened (e.g. Greece) or is still unstable (e.g. Austria).

Conservation and Legal Status

This species has a small global population, and is likely to be undergoing continuing declines, primarily because of habitat loss and degradation, adult mortality through persecution and electrocution on powerlines, nest robbing and prey depletion. It is therefore listed as Vulnerable in 2010 the global IUCN Red List. At least in most parts of Europe numbers are now increasing (BirdLife International, 2008).

Overview of past and current threats

Forestry practices and the removal of trees from the agricultural land have been considered as the most important threat at the time of the action plan, followed by persecution and disturbance. The current review confirmed the importance of forestry in relation to nest site availability, but the importance of persecution and nest robbery has fallen, replaced by newly identified threats such as poisoning and electrocution (highest documented threats for the Pannonian sub-population) and human disturbance during incubation (e.g. by farming operations). Emerging particularly to the feeding habitats are reported from Bulgaria (e.g. windfarm and solar development and conversion of pastures to vineyards, orchards or arable).

Assessment of the implementation

National and regional species action plans

National action plans are adopted in Hungary⁹⁶ and Bulgaria (update in prep.) and regional plans have been developed by NGOs for the Balkans and Caucasus. An international working group for the species is operational and supports the implementation and coordination of conservation actions and actively promotes international cooperation.

Species conservation

Active conservation measures have been implemented in all countries, but most progress has been made in Hungary, Slovakia and Bulgaria. Monitoring and conservation actions locally are taking place in Serbia, Ukraine, Russia (incl. Western Siberia), Turkey (the European part). Conservation actions carried out include nest protection and management, prevention of disturbance, ringing, satellite and radio tracking, provision of additional food, etc. Powerline mitigation has been identified as key measure to reduce mortality currently carried out in Hungary, Slovakia and Bulgaria.

⁹⁶ Management plan for the Imperial Eagle developed under LIFE02NAT/H/8627

Site conservation

The population is well covered by protected areas and SPAs (50-70% on average) but as it is growing and expanding, it already occupies territories that are not protected. However, management of the SPAs is not yet established and management plans are mostly not prepared. There are 165 IBAs designated for the species in the countries covered by this plan (47 in the EU). In the EU 47 SPA have been designated and the IBAs are almost entirely covered.

Habitat conservation

The two broad types of habitats required by the species are influenced by different management actions. The breeding habitats are largely dependent on forestry operations and the protection of nest territories from cutting and disturbance during the breeding season have to be restricted (this is mostly achieved in HU and SR). The species also breeds on individual trees or small forest patches in arable land and in river valleys, where the protection has to be ensured through protection of non-arable features. Agri-environmental schemes to ensure favourable grazing and pasture maintenance are in place in HU and SK, where guidelines for farmers were also developed. Pilot schemes have been tested in BG.

Monitoring and Research

Monitoring of the species is well developed across the EU and in some of the non-EU range states. It has to be improved in TR. Satellite telemetry has been used successfully to determine important dispersal areas of juveniles and to investigate threats.

Public awareness and stakeholder involvement

The main focus of the public awareness work targeting the species has been the protection of nest sites from destruction and disturbance among the farmers, shepherds and foresters.

Community financial support

Four LIFE projects⁹⁷ have been implemented in Bulgaria, Greece, Hungary and Slovakia since 2004 with a total budget of over 4.7 million Euros, of which the total European Union contribution 3.3 million.

Conclusions

The progress in the implementation of the action plan is good (AIS=2.2) and very good in BG, CY, HU, SR, SK and UA (>2.5).

⁹⁷ LIFE+07 NAT/BG/000068, LIFE02NAT/GR/8497, LIFE02NAT/H/8627, LIFE03NAT/SK/000098

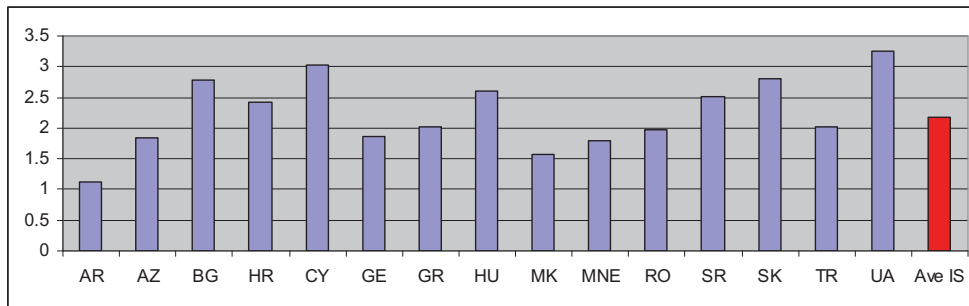


Figure xi. Progress in the implementation of the action plan per country

- Law enforcement and public awareness efforts must still improve.
- Insulation of powerlines and redesign of electric poles.
- Construction of windfarms has to be monitored and prevented in important breeding areas.
- The management of the SPAs to ensure breeding and feeding habitats: particularly the protection of lowland trees, pastures and extensive farmland.
- Farmland is the most important feeding habitat and intensification and abandonment of grasslands, cereals and pesticide use are all of critical importance. For the species and its prey both cultivated and fallow lands are necessary.
- Poisoning and use of toxic chemicals in agriculture or illegally, for predator control, are a factor that is still a cause of widespread concern and has to be addressed.

Contributors

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Appendix 1

Table 28 Implementation of the action plan in the European range states. PS = Priority Score; Ave. IS = Average Implementation Score; API = Action Priority Index; National IS = National Implementation Score.

Action	Measure	PS	AR	AZ	BG	HR	CY	GE	GR	HU	MK	MT	NE	RO	SR	SK	TR	UA	Ave IS	API
1.1.1	To promote forestry policies that are sympathetic to wildlife and compatible with the conservation of the Eastern Imperial Eagle	3	1	1.2	2	0	2.5	1.4	3	2.4	1	0	0	1.2	3.2	1.8	1.2	2.6	1.9	2.1
	a. Parts of commercial forests are set aside to develop naturally without felling or planting.	3	1	1	2	0	2	3	3	2	1	0	2	4	4	1	1	4	2.1	1.9
	b. Human activity is prevented within 300 m of active nests of the EIE and other threatened birds.	3	1	2	2	0	4	1	3	3	1	0	0	3	3	3	2	3	2.3	1.7
	c. Agreements with forest owners are established to ensure appropriate management.	3	1	1	2	0	0	1	0	3	1	0	1	2.5	1	1	1	0	1.5	2.6
	d. Precise guidelines for forest management in areas where sensitive species occur are produced and implemented.	3	1	1	1	0	3	1	3	2	1	0	1	2.5	2	2	1	0	1.6	2.4
	e. Co-operation with landowners and relevant forestry authorities for the protection of the species is in place.	3	1	1	3	0	1	1	0	2	1	0	1	4	2	1	1	1	1.6	2.4
1.1.2	Agricultural and rural development policies are sympathetic to wildlife and are compatible with the conservation of the Eastern Imperial Eagle.	2	1	0	1.3	0	0	0	1	2.6	1	0	1	1.5	3	1	1	1	1.5	1.7
	a. Guidelines for farming practices compatible with the EIE are produced.	2	1	0	1	0	0	0	1	4	1	0	1	0	4	1	0	0	1.8	1.5
	b. The EIE and its prey (e.g. Suslik) are subject of agri-environmental measures.	2	1	0	2	0	0	0	0	3	1	0	0	1	3	1	1	1	1.6	1.6
	c. Farming activities during the breeding season restricted in vicinity of EIE nests.	2	1	0	1	0	0	0	0	1	1	0	0	2	2	1	1	1	1.3	1.8
1.1.3	All IBAs where EIE occurs are legally protected and favourable management for the species is implemented	3	1	1.6	2	1	2	1.6	2	1.7	1	0	2	2.2	1	1.5	1	1	1.6	2.4
	a. All IBAs where the species occurs have adequate management plans.	3	1	1	2	0	0	2	3	2	1	0	1	2.5	1	1	1	0	1.6	2.4
	b. All sites holding one or more pairs of the EIE are legally protected.	3	1	1	3	0	0	2	3	2	1	0	3	3.5	0	2	0	0	2.2	1.9
	c. The remnants of original lowland forests are conserved.	3	1	3	2	1	3	1	1	2	1	0	2	2	1	0	1	1	1.6	2.4

Action	Measure	PS	AR	AZ	BG	HR	CY	GE	GR	HU	MK	MNE	RO	SR	SK	TR	UA	Ave IS	API
	d. The IUCN Action Plan for Protected Areas in Europe is implemented.	3	1	0	1	0	1	0	1	1	1	0	2	1	0	0	0	1.1	2.9
1.1.4	International co-operation and support is provided to all range states, particularly those suffering from socio-economic difficulties or conflict.	3	1	2	4	1	0	2.4	2	2.4	1.4	0	2	1.6	2.8	2.4	1.5	2.0	2.0
	a. International experiences utilised in assessing the damage to Important Bird Areas.	3	1	2	4	0	0	3	3	1	1	0	2	2	3	2	0	2.2	1.8
	b. International support provided on strengthening legislation and institutions.	3	1	1	4	1	0	2	1	2	2	0	2	1	3	2	1	1.8	2.2
	c. Experiences shared on training conservation specialists.	3	1	2	4	1	0	2	3	3	1	0	2	3	2	3	1	2.2	1.8
	d. International assistance provided on research and monitoring.	3	1	3	4	0	0	3	2	3	2	0	2	1	3	3	2	2.4	1.6
	e. International support for provision of funds and equipment.	3	1	2	4	0	0	2	1	3	1	0	2	1	3	2	2	2.0	2.0
1.2.1	National laws and regulations should be reviewed and updated to be compatible with the protection of wildlife and the conservation of the EIE.	3	1.2 5	1.7 5	3	3	4	2	2	3.2 5	2	2.6 7	3	3	2.6 7	3	4	2.7	1.3
	a. The EIE is given the maximum level of protection.	3	2	4	4	0	4	4	4	4	3	4	4	4	4	4	4	3.8	0.2
	b. National action/ recovery plans and habitat management plans are implemented for the species.	3	1	1	3	0	0	2	1	3	1	0	1	1	0	1	0	1.5	2.5
	c. Environmental impact assessments are required for any infrastructure development likely to affect EIE habitat.	3	1	1	2	2	0	1	2	2	2	2	3	4	1	3	4	2.1	1.9
	d. Poisoning is completely banned or strictly regulated.	3	1	1	3	4	4	1	1	4	2	2	4	3	3	4	4	2.7	1.3
1.3.1	The three international conventions that list the EIE (Bern Convention; Bonn Convention; and Washington Convention) along with the Biodiversity Convention are signed, ratified and implemented in all range states.	3	3	2.6 3	3.5	3	4	3	3.5	3.5	2.6 3	3	3.5	2.8 1	2.5	2.6 3	4	3.1	0.9
	a. Bern Convention signed and ratified.	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	4.0	0.0
	b. Bern Convention adequately implemented at national level.	3	2	1	3	2	4	2	3	3	1	2	3	1.5	1	1	0	2.1	1.9
	c. Bonn Convention signed and ratified.	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	4.0	0.0
	d. Bonn Convention adequately implemented at national level.	3	2	1	3	2	4	2	3	3	1	2	3	1	1	1	0	2.1	1.9
	e. Washington Convention signed and ratified.	3	4	4	4	4	4	0	4	4	4	4	4	4	4	4	4	4.0	0.0

Action	Measure	PS	AR	AZ	BG	HR	CY	GE	GR	HU	MK	MNE	RO	SR	SK	TR	UA	Ave IS	API
	f. Washington Convention adequately implemented at national level.	3	2	2	3	2	4	0	3	3	2	2	3	2.5	1	2	4	2.5	1.5
	g. Biodiversity Convention signed and ratified.	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	0	4.0	0.0
	h. Biodiversity Convention adequately implemented at national level.	3	2	1	3	2	4	2	3	3	1	2	3	1.5	1	1	0	2.1	1.9
2.1.1	Promote the designation of all the Important Bird Areas where the species occurs as protected areas All IBAs in which the species occur are protected	3	0	3	3	0	0	3	3	2	1	2	3	3.5	4	1	0	2.6	1.4
2.1.2	Encourage appropriate habitat management in unprotected sites a. Careful monitoring is carried out to highlight potential threats and harmful activities. b. Regular contact established and information shared between NGOs and forestry authorities. c. Buffer zones declared to prevent disturbance during incubation and rearing.	3	1	1.6 7	3	0	0	1.3 3	1	2.6 7	1.3 3	1	1	2.2 5	3.3 3	2.3 3	0	1.8	2.2
		3	1	3	4	0	0	2	1	4	2	1	0	2	4	3	0	2.5	1.5
		3	1	1	3	0	0	1	1	2	1	1	1	2.5	3	3	0	1.7	2.3
		3	1	1	2	0	0	1	0	2	1	1	0	0	3	1	0	1.4	2.6
2.1.3	Encourage appropriate habitat management at privately owned sites a. Landowners made aware of the existence of EIE and encouraged to manage the habitat according to the species' needs. b. Guidelines for habitat management provided to landowners. c. State-supported environmentally sensitive management schemes launched.	2	1	1	2	0	0	1	0	1.3 3	1	1	1	1	2.3 3	1	4	1.5	1.7
		2	1	1	3	0	0	1	0	1	1	1	0	1	3	1	0	1.4	1.7
		2	1	0	1	0	0	1	0	1	1	1	1	1	3	1	4	1.5	1.7
		2	1	0	2	0	0	1	0	2	1	1	1	1	1	1	0	1.2	1.9
2.1.4	Provide artificial nest structures to avoid the loss of clutches and chicks due to bad weather Artificial nest structures provided where necessary	1	1	0	2	0	0	1	0	3	1	0	1	4	4	0	0	2.1	0.6
		1	1	0	2	0	0	1	0	3	1	0	1	4	4	0	0	2.1	0.6
2.1.5	Increase abundance and availability of EIE key prey species a. Viable populations of prey species (suslik) restored in EIE areas. b. Technical guidelines produced for suslik restoration by organisations and agencies that have the expertise.	3	1	0	1	0	0	1	1	1	0	0	0	1.5	3	0	4	1.7	2.3
		3	1	0	1	0	0	1	1	1	0	0	0	2	2	0	0	1.3	2.7
		3	1	0	1	0	0	1	1	1	0	0	0	1	4	0	4	1.8	2.3
2.2.1	Prevent nest-robbing and illegal trade a. Surveillance and wardening of vulnerable nest-sites. b. Heavy fines for taking birds included in	3	0	1	3	1.5	4	1.3 3	0	2.5	1.3 3	1	1.7 5	3.6 3	2.1 7	2.7 5	4	2.3	1.7
		3	0	0	3	0	0	2	0	1	1	0	0	3	1	1	0	1.7	2.3
		3	0	1	4	3	4	2	0	4	1	0	3	3.5	1	4	0	2.8	1.2

Action	Measure	PS	AR	AZ	BG	HR	CY	GE	GR	HU	MK	MNE	RO	SR	SK	TR	UA	Ave IS	API
	national laws.																		
	c. Stricter controls imposed on captive-breeding centres.	3	0	1	2	1	0	1	0	0	1	0	0	0	2	0	0	1.3	2.7
	d. Relevant agencies and NGOs informed on the threat posed to the EIE by trade and encouraged to take action and share information.	3	0	1	3	1	0	1	0	1	2	1	2	4	3	4	0	2.1	1.9
	e. Zoos informed about the risks of accepting birds of uncertain origin.	3	0	1	3	1	0	1	0	4	2	0	1	4	3	2	4	2.4	1.6
	f. Information gathered on EIE trade.	3	0	1	3	0	0	1	0	0	1	0	1	0	3	0	0	1.7	2.3
2.2.2	Prevent mortality by poisoning	3	0	0	2.6	4	3.3	1	1	3	2.3	2	2.3	2.6	2.6	1.3	4	2.5	1.5
	a. The use of poisoned baits prohibited or strictly controlled.	3	0	0	7	3	3	1	1	3	3	2	3	7	7	3	4	2.7	1.3
	b. The occurrence of poisoning permanently monitored in each European country.	3	0	0	3	4	4	1	1	3	2	2	3	3	3	2	4	2.7	1.3
	c. Authorities and farmers informed of alternative methods for the selective control of 'pest' species.	3	0	0	3	0	2	1	1	4	2	0	2	2.5	3	1	4	2.3	1.7
2.2.3	Control illegal hunting	2	2	2	3	0	0	1.5	2	2.5	1.5	1	1	2.5	2	1	0	1.8	1.4
	a. Species protection law efficiently implemented and surveillance conducted in PAs where the EIE occurs.	2	0	2	3	0	0	1	3	2	2	1	1	2.5	0	1	0	1.9	1.4
	b. Awareness-raising campaigns carried out in appropriate areas.	2	2	2	3	0	0	2	1	3	1	1	1	2.5	2	1	0	1.8	1.5
2.2.4	Reduce mortality from electrocution by powerlines	3	0	1	2.5	0	0	1	1	3	1	2	2.5	2.7	3.5	1	4	2.1	1.9
	a. Companies owning powerlines undertake appropriate modifications to reduce EIE mortality.	3	0	1	2	0	0	1	1	2	1	0	2	2	3	1	0	1.6	2.4
	b. Information on methods to reduce electrocution available to the relevant organisations.	3	0	1	3	0	0	1	1	4	1	2	3	3.5	4	1	4	2.4	1.6
2.2.5	Prevent human disturbance	2	0	1	3	0	0	1	0	1	1	0	0	3	1	1	4	1.8	1.5
	Wardening of nesting birds in place.	2	0	1	3	0	0	1	0	1	1	0	0	3	1	1	4	1.8	1.5
2.2.6	Reduce incidental mortality from trapping	1	0	0	3	4	0	1	0	0	3	1	3	2.5	4	4	4	3.0	0.4
	Leg-hold traps prohibited by law and regulations enforced in EIE range states.	1	0	0	3	4	0	1	0	0	3	1	3	2.5	4	4	4	3.0	0.4
3.1.1	Establish an EIE monitoring programme	3	1	2	3	0	0	2	3	4	3	0	1	2.5	4	3	1	2.5	1.5
	A monitoring programme for the EIE established, with a network of competent field ornithologists in place in each state that the EIE breeds.	3	1	2	3	0	0	2	3	4	3	0	1	2.5	4	3	1	2.5	1.5
3.2.1	Undertake national surveys through the utilisation of expertise from relevant member states	3	1	2	3	0	0	3	1	4	2	0	1	2.5	4	3	0	2.4	1.6

Action	Measure	PS	AR	AZ	BG	HR	CY	GE	GR	HU	MK	MNE	RO	SR	SK	TR	UA	Average IS	API
	Guidelines for participants in national surveys distributed and fieldwork carried out.	3	1	2	3	0	0	3	1	4	2	0	1	2.5	4	3	0	2.4	1.6
3.3.1	Gather data on the wintering and migration routes of EIE, utilising satellite-tracking technology New information on migration and wintering areas gathered by satellite-tracking.	3	1	0	3	0	0	1	0	3	1	0	0	1	2	3	4	2.1	1.9
3.4.1	Conduct research on EIE limiting factors and causes of mortality through the study of the species' habitat-use, home range and fledgling movements and utilisation of radio-tracking EIE limiting factors and causes of mortality identified.	2	1	2	3	0	1	2	0	2	1	0	1	1.5	2	2	4	1.9	1.4
3.5.1	Update and complete national IBA inventories National IBA inventories updated.	3	1	3	4	3	2	4	4	2	2	2	4	4	4	3	4	3.1	0.9
4.1.1	Provide up-to-date, accurate information on the status and conservation needs of the EIE through public information programmes Awareness on the need for EIE protection increased.	2	1	2	3	0	1	3	1	4	2	0	2	2.5	3	1	4	2.3	1.2
	National IS and Average IS	1.1 2	1.8 4	2.7 7	2.4 3	3.0 2	1.8 7	2.0 1	2.6 1	1.5 7	1.7 9	1.9 8	2.5 1	2.8 1	2.0 3	3.2 4	2.2		

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