

Country Report of Yemen

**Central Asian Flyway Action Plan Meeting
Delhi, 10-13, June, 2005.**

**Dr.Hussien A. AL-Gunaid
Deputy Minister for Environmental Affairs
Ministry of Water & Environment
Sana'a – Republic of Yemen
May, 2005**

A. Brief Introduction:

Yemen is occupying a unique geographical location in the West Asia. There are four topographic regions in the country. The coastal region, the Highland & mountainous region slightly extensive of terraces, Tehama and Eastern desert region.

Yemen's population 22 million lives on 2% of its total geographical area of about 45 million hate population is scattered at about 41,800 villages (rural areas) with 74% of the population living in settlements of less than 5,000 people thus making difficult the extension of basic services to this group of the population .

Birds

Yemen is considered one of the rich countries in biological diversity. It hosts about 2,500 species of plants, about 85 species of mammals 370 species of birds and more than 115 species of amphibians and reptiles. More than 250 species of plants and 25 bird species are considered endemic to Yemen. In Socotra Island alone, more than 30% of the plants are endemic. Twenty percent of spidermite species and 10 % of insect species in the island bear the name of the island as a genus or species.

It has a very rich bird fauna with more than 363 species thus far recorded representing 18 orders, 61 families and 177 genera. The main reasons for this richness are:

- i) Presence of a wide array of habitats (mountains, Tihama plains, wetlands and marshes, coastal areas, Gulf of Aden and Red Sea, and agricultural landscapes of many varieties) largely the result of the broad range of elevations and climate;
- ii) Geographic isolation by the sea and deserts, resulting in 13 endemic or near-endemic species;
- iii) Yemen's position at the transition zone of three biogeographic regions: Afrotropical, Oriental and Palaeartic, resulting in a mixture of species from all three; and
- iv) The country's strategic position at the foot of the Arabian Peninsula, thus acting as an important stop-over in the path of flyways for migrant birds, notably birds of prey and waders.

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From the 363 bird species recorded in Yemen, seven groups are of particular importance:

1) Globally Threatened Species.

Bald Ibis (*Geronticus eremita*): Yemen is probably a vital wintering area for a small population of this species and may possibly even be their breeding ground. The retention of grazing marshes, especially in the Taiz area is critically important.

White-eyed Gull (*Larus leucophthalmus*): Occurs throughout the year on the coast and may well breed on Yemen's off-shore islands. The main threats are oil pollution and destruction of nesting colonies through man's activities and other important species are shown in **(Table 5)**.

2) Species Endemic to Southwest Arabia:

Yemen holds significant, and in most cases the major populations of 13 species unique to southwest Arabia. For a small country to be so richly endowed with endemic birds adds greatly to its international significance. With the exception of the Arabian Golden Sparrow *Passer euchlorus*, all endemic species occur in the highlands. The Arabian Accentor *Prunella fagani* is known only from the highlands of Yemen mainland.

The demise of the terracing systems could adversely affect several of the endemics as the resultant soil erosion will cause loss of trees. Acacias in the highlands, even isolated trees or clumps, are important for the Arabian Woodpecker *Dendrocopos dora*, Yemen Thrush *Turdus menachensis*, Yemen Warbler *Parisoma buryi*, Arabian Serin, Golden-winged Grosbeak *Rhynchostruthus socotranus*, and Yemen Linnet *Carduelis yemenensis*. See Table (6).

3) Seabirds

The biological richness of the Red Sea and offshore islands of Yemen combine to make an ideal feeding and breeding area for seabirds, notably Red-billed Tropicbird *Phaethon aethereus*, Masked Booby *Sula dactylatra*, Brown Booby *Sula leucogaster*, Sooty Gull *Larus hemprichii* and possibly White-cheeked Tern *Sterna repressa*. The globally threatened White-eyed Gull *Larus leucophthalmus* may also breed there. All these species plus many others feed in the relatively shallow inshore waters along the coast of Yemen.

Oil pollution, disturbance from military activities, port developments and planned tourist facilities may all have an adverse effect on the seabirds. The lack of recent information on the status of these birds in Yemen makes specific recommendations impossible. However, priority should be given to an ornithological survey of the offshore islands.

4) Water birds

Freshwater habitats are rare in Yemen. Concentrations of ducks and grebes occur in just two areas (both recently created sewage lagoons) but rarely exceed 1000 birds. These, together with the new dam at Ma'rib, may result in a notable increase in the numbers of waterbirds in winter; they have already led to some species breeding for the first time in Yemen. For wading birds, coastal areas are important, particularly where wadis reach the sea. While comprehensive counts have not been undertaken it would appear that the biologically rich mudflats are particularly important for the following species: Crab Plover, Greater Sand Plover *Charadrius leschenaultii*, Lesser Sand Plover *Charadrius mongolus*, Sanderling *Calidris alba*, Little Stint *Calidris minuta*, Curlew Sandpiper *Calidris ferruginea*, Bar-tailed Godwit *Limosa lapponica*, Grey Plover *Pluvialis squatarola*, and Redshank *Tringa totanus*.

Storks, herons and egrets also occur on passage in small to moderate numbers but no important concentrations have been discovered. White Storks *Ciconia ciconia* winter in small numbers at freshwater sites and breeding species include Abdim's Stork *Ciconia abdimii* (on Tihama rooftops), Reef Heron *Egretta gularis* (coast), Cattle Egret *Bubulcus ibis* (trees on Tihama and foothills), Green-backed Heron (mangroves), and Pink-backed Pelican *Pelicanus rufescens* (mangroves); though none have been censused. Despite the close proximity of many breeding colonies to villages and human activities, there is no evidence of interference or persecution.

The highest conservation priority concerning water birds is of course the Bald Ibis, mentioned under 'Globally Threatened Species.

5) Migrant and Wintering Passerines:

Over 220 species have been recorded on migration in Yemen; mention has been made already of the waders, white storks and raptors. A number of passerines or near-passerines also occur on migration and/or in winter in what appear to be significant numbers. These are Golden Oriole (*Oriolus oriolus*), Bee-eaters (*Merops* spp.), Short-toed Lark (*Calandrella brachydactyla*), Swift (*Apus* spp.), Swallow (*Hirundo rustica*), Tawny Pipit (*Anthus campestris*), Yellow Wagtail (*Motacilla flava*), White Wagtail (*Motacilla alba*), White throated Robin (*Irania gutturalis*), Black Redstart (*Phoenicurus ochrurus*), Redstart (*Phoenicurus phoenicurus*), Stonechat (*Saxicola torquata*), Isabelline Wheater (*Oenanthe isabellina*), Pied Wheater (*Oenanthe pleschanka*), Olivaceous Warbler (*Hypolais pallida*), Menetries' Warbler (*Sylvia mystacea*), Desert Lesser Whitethroat (*Sylvia curruca minuta*), Chiffchaff (*Phylloscopus collybita*), Isabelline Shrike (*Lanius isabellinus*), and Great Gray Shrike (*Lanius excubitor*).

6) Wetlands:

Yemen's wetlands can be divided into natural and man-managed systems. The former include four subdivisions:

- a. Marshes and lagoons, around Aden, which form a suitable refuge for several species of birds.
- b. Mangrove sites in the Tehama "west coast of Yemen" and Bir Ali mangrove site on the southern coast.
- c. Valleys and permanent streams all over the country which support all kinds of freshwater biodiversity, including microorganisms, various invertebrates, fish, amphibians, birds, and many plant species.
- d. The swamps of Taiz, the only known site in Yemen for the globally threatened Bald Ibis *Geronticus eremicus*.

The man-managed systems, on the other hand include the lake of Marib Dam which is the largest freshwater body within the Arabian Peninsula. This lake can play an important role in the conservation of large numbers of freshwater species.

The wetlands of Yemen are being degraded rapidly due to rapid development and population pressure, withdrawal of water for irrigation, destruction of swamp forest and many other anthropogenesis and natural causes. Large scale habitat conversion, unsustainable harvesting policies and lack of environmental consideration and awareness have led to destruction of valuable wetland habitat for water birds and other associated biodiversity

B. National Administration Structure for Migratory Water birds & Wetlands

Table (1): National Administration Structures Responsible for Managing Migratory Water Birds & Wetlands in Yemen.

Name of Agency	Geographic Scope	Thematic Focus	Principle outputs on water birds and wetlands
Ministry of Water & Environment	Yemen	-Environmental and Water policies , strategies , action plans and regulations -Migratory water birds & wetlands conservation.	Signatory to CITES,CBD & Ramsar Conventions. Declaration of three wetlands; Aden, Hodiedah and Socotra sites.
Environment Protection Authority	Yemen	-Implementation and management of environmental Programs and projects. -Management of water birds and wetlands.	Management plan of wet land sites. Ongoing activities on conservation of biodiversity, endangered species and protected areas.
Ministry of Agriculture & Irrigation	Yemen	Veterinary issues	-Management of Veterinary centres. -Control of animals and plants diseases.

C- National Policy and Legislation relating to migratory water birds and wetlands:

Laws:

- Environment Protection Law (EPL) No. 26 for 1995;
- By law and executive regulation - Cabinet Decree No. (148) for 2000;
- Water resource Law No. (.....) for 20002.

Policy:

- Environmental Impact Policy (1996).

Strategy and Action Plan:

- National Environmental Action Plan (NEAP) 1995;
 - National Biodiversity Strategy & Action Plan (1999);
 - National Water Strategy, 1997;
 - National Strategy for Water & Sanitation Reform and investment program, 2005,
 - National Bio safety Strategy, 2004.
- Integrated coastal zone management plan for Aden,2005.
Integrated coastal zone management plan for Hodiedah .
(Draft).

D-National Government Institutions involved in Migratory Water birds and Wetlands Research Management.**Table 2 :National Government Institutions involved in Migratory Water birds and Wetlands Research / Management:**

Name of Agency	Geographic Scope	Thematic Focus	Principle outputs on water birds and wetlands
Ministry of Water & Environment	Yemen	-Wildlife conservation policy, strategy and action plan. -Declaration of protected areas.	Declaration of protected areas: -Socotra islands; -Utma national park; -Aden wetland; -Sharma protected area; -Houf protected area; -Bura'a protected area;
Environment Protection Authority	Yemen	-Management of protected areas and wetlands.	-Study and research on biodiversity, endangered species and identify protected areas for declaration.. -Implementation of projects.
Local councils	Governorates and Provinces	Assist in management of protected areas.	-Participate in implementation of projects

E-Main Non- Governmental organizations and academic institutions involved in migratory water birds and wetlands research / management:

Table: 3 Main Non- Governmental organizations and academic institutions involved in migratory water birds and wetlands research / management:

Name of NGO's	Geographic Scope	Thematic Focus	Principle outputs on water birds and wetlands
Yemen Bird life	Yemen	-Support Wildlife conservation activities and raise awareness; -Watching of migratory birds	Resource of information and raise of awareness among the local communities -Participation in management and research.
-Wild life Society	Yemen	- Support Wildlife conservation activities and raise awareness; -Study and research.	-Study and research on biodiversity, endangered species and assist in identify protected areas for declaration.. -Implementation of projects.
-National universities	Rational	Research and studies; Training and capacity building.	Implementation of biodiversity research projects

F-International Instruments:**Table 4: Main international instruments (Treaties and conventions) that are relevant to migratory water birds and wetlands of Yemen:**

Instruments	Geographic Scope	Thematic Focus	Implementing strategy and action plan
-Biodiversity (CBD) signed in 1992 and ratified in 1995.	Yemen	-Biodiversity	National Biodiversity Strategy and Action plan
-The Convention on International Trade in Endangered Species (CITES). signed in 1991	Yemen	- Endangered species of fauna and flora	- National Biodiversity Strategy and Action plan
Ramsar Convention -ratified in	Yemen	Wetlands resources	National Biodiversity Strategy and Action plan

Table 5. Globally threatened birds found in Yemen

Species	English Common Name	Endemic Yemen	Restricted Distribution Including Yemen
<i>Aquila clanga</i>	Greater Spotted Eagle		
<i>Aquila heliaca</i>	Imperial Eagle		
<i>Aythya nyroca</i>	Ferruginous Duck		
<i>Crex crex</i>	Comerake		
<i>Emberiza socotra</i>	Socotra Bunting	*	
<i>Falco naumanni</i>	Lesser Kestrel		
<i>Geronticus eremic</i>	Northern Bald Ibis		
<i>Larus leucophthalmus</i>	White-eyed Gull		*
<i>Onychognathus futer</i>	Socotra Starling	*	
<i>Parisoma buryi</i>	Yemen Warbler	*	
<i>Turdus menachesis</i>	Yemen Thrush	*	

Table 6 Endemic and semi endemic bird species in Yemen

Species	Endemic to Yemen		Semi Endemic		
	Mainland	Socotra	Yemen	Asir	Dhofar
<i>Alectoris melanocephala</i> (Red-legged Partridge)			*	*	*
<i>Alectoris philbyi</i> (Philby's Rock Partridge)			*	*	
<i>Apus berliozi berliozi</i>		*			
<i>Carduelis yemenensis</i> (Yemen Linnet)			*	*	
<i>Cisticola haesitata</i>		*			
<i>Dendrocopos doraе</i> (Arabian woodpecker)			*	*	
<i>Emberiza socotrane</i> (Soqatra Bunting)		*			
<i>Estrilda rufibarba</i> (Arabian Waxbill)			*	*	
<i>Incana incana</i>		*			
<i>Nectarinia balfouri</i> (Balfour Sunbird)		*			
<i>Oenanthe lugens boscaweni</i> (Mourning Wheatear)				*	*
<i>Oenanthe lugens lugentoides</i> (Mourning Wheatear)			*	*	
<i>Onychognathus frater</i> ()		*			
<i>Otus senegalensis pamela</i> (Senegal Scops Owl)			*	*	*
<i>Otus senegalensis socotranus</i> ()		*			
<i>Parisoma buryi</i> (Yemen Warbler)			*	*	
<i>Passer euchlorus</i> (Golden Sparrow)			*	*	
<i>Passer insularis</i> (Socotra Sparrow)		*			
<i>Prunella fagani</i> (Arabian Accentor)	*				
<i>Rhynchostruthus socotranus percivali</i>			*	*	*
<i>Rhynchostruthus s. socotranus</i> (Golden-winged Grosbeak)		*			
<i>Serinus menachensis</i> (Yemen Serin)			*	*	
<i>Serinus rothschildi</i> (Olive-rumped Serin)			*	*	
<i>Turdus menachensis</i> (Yemen Thrush)			*	*	
<i>Zosterops socotrana</i> (Soqatra White-eye)		*			

Our Comments and Positions:

- 1) The proposed action plan (CAF) is formulating a basis and opportunity for regional cooperation to conserve migratory water birds species.
- 2) The implementation of the plan is beyond our capacity.
- 3) Yemen can endorse the plan in condition that technical and financial supports are provided.
- 4) We believe that the existing AEWA secretariat that located in the Netherlands could be the suitable institutional framework. There is no need to establish new secretariat for implementation of CAF.
- 5) Due to the geographical overlapping, the legal framework for CAF should be discussed carefully. We believe memorandum of understanding to be attached to the AEWA or annex to the CMS are the suitable legal framework.
- 6) Other countries in the central Asia should be invited for CAF.