



INITIAL ASSESSMENT ON SUSTAINABILITY OF THE LIVE BIRD TRADE IN
TANZANIA: VULNERABLE SPECIES.

by

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Commissioned by the Wildlife Conservation Society of Tanzania (WCST).

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1.0 INTRODUCTION

Tanzania has long been recognized for its diverse birdlife, which is now standing at about 1088 species. Among the birds occurring in Tanzania, between 150 and 160 species are included in the international live bird trade (WD *in litt.*). The country is now the second major exporter of live birds on the international trade in Africa after Senegal. The bird trade is carried out on the basis that Tanzania promotes wildlife utilisation in both non-consumptive and consumptive terms (MNRT 1998).

The history of exporting birds from the country dates back to colonial period when live specimens were taken for pet reasons. However, commercial export of birds from Tanzania was initiated during the 1960s by one Danish citizen (Steinmetz *et al* 1998). Since then the trade increased slowly, for by 1970s there were about seven bird exporters operating in the country. During the 1980s, the business seemingly grew out of control given that large volumes of bird export had already reached alarming levels (Leader-Williams & Tibanyenda 1995). As a result, a quota system was introduced in 1988 in order to control the type (species) and number of birds caught for the international trade (Leader-Williams & Tibanyenda 1995). This control measure was made in response to requirements of the Convention on International Trade in Endangered Species of wild Fauna and Flora (CITES), for which Tanzania became a party in February 1980. In addition, the Government drew up in 1993 a policy and regulations on trade of live birds in order to safeguard this form of wildlife utilisation without impacting the survival of the species (see MNRT 1993). Furthermore, the Government has been from time to time imposing a *moratorium* on export of species considered as endangered by the international bird trade (WD *in litt.*).

Despite the Government efforts to control the capture and export of birds and make wise use of the various species in trade, the ecological and economic sustainability is not completely resolved. Fundamental challenges include understanding population status of species in trade, methods used to trap and transport birds from the field to the final destinations in importing countries as well as the conditions of birds at holding grounds before being exported abroad. The other challenge is a need to ensure that any illegal trade on live birds is adequately controlled. It was because of these challenges that this survey was carried out to assess some of the issues related to the bird trade during the past four years i.e. 1998-2001 in Tanzania, with a view to contributing towards its further improvements.

2.0 OBJECTIVES

2.1 Main Objectives

The main objective of the survey was to determine any vulnerability of birds in trade during 1998 to 2001 in Tanzania (see Terms of Reference in Appendix 2).

2.2 Specific Objectives

- To determine any vulnerable bird species in trade for the past four years i.e. 1998-2001.
- To determine means of transportation of birds, and their conditions at holding grounds.
- To determine methods used to trap/capture birds.
- To identify any potential and existing exit points for illegal bird trade in Tanzania.

3.0 METHODOLOGY

3.1 Criteria to determine vulnerability

The following criteria were used to determine the degree of vulnerability of birds in trade:

- **Export pressure;** whether a species is heavily exploited or not.
- **Handling;** whether a species is relatively easy or difficult to handle in the field including trapping methods, transportation and handling at holding grounds.
- **Distribution;** whether a species is widely distributed or with restricted range in the country.
- **Habitat;** whether a species occurs in a variety of or extensive habitats, or in critical habitats.
- **Status;** whether a species is resident or migratory, endemic or not, common or uncommon/rare, or with specialised breeding habit/area.
- **Feeding habit;** whether a species has specialised feeding habit (e.g. flamingoes and sunbirds) or not.
- **Subject for illegal trade.**

3.2 Sources of information on the bird trade

Information on the bird trade was gathered from the following sources:

- **Literature;** this included both published and unpublished reports/manuscripts.
- **Direct communication** to the stakeholders including the Wildlife Division in Dar es Salaam and Arusha, TRAFFIC (Tanzania Office), bird dealers (exporters and trappers) in Dar es Salaam and Arusha, and officials at the Dar es Salaam and Kilimanjaro International Airports and at Namanga-Tanzania/Kenya border.
- **Direct observations** in the field in Dar es salaam and Arusha.

4.0 RESULTS

4.1 Most exploited birds

A total of 160 species of birds have been in trade during 1998 to 2001 (see Appendix 1); among these, 12 species were most exploited in terms of exports, ranging from over 10,000 birds for the Yellow-crowned Canary to nearly 100,000 birds for the Blue-capped Cordonbleu (Table 1).

Table 1: Export levels for the most exploited species during the period 1998-2001.

SPECIES	YEARS			
	1998	1999	2000	2001
Blue-cap Cordonbleu	22229	30,000	18,640	26,605
Red-ch Cordonbleu	6826	14,042	6598	1750
Zanzibar Red Bishop	3540	9,009	6160	980
Purple Grenadier	7603	5257	2529	3563
Zebra Waxbill	3000	10000	4622	600
Peters' Twinsport	6665	6336	2154	2895
Yellow-r Seed-eater	3826	6123	3851	2735
Yellow-fronted Canary	3775	5989	4209	1687
Green-winged Pytilia	30	6242	3028	1870
Southern Cordonbleu	2699	3466	2180	2750
Southern Red Bishop	3125	4672	1300	1715
Yellow-c Canary	3798	3122	1861	1687
TOTAL	90,000	148,000	86,000	72,489

Total annual exports for all the birds for the period 1998-2001 are shown in Table 2 (data for 1988-1990 are included for comparison).

Table 2: Total number of birds exported during 1998-2001 compared to exports for 1988-1990.

Year	No. of birds exported from annual quota
1988	72,455
1989	141,517
1990	216,734
1998	90,000
1999	148,000
2000	86,000
2001	72,489

Source: WD (in litt.)

4.2 Handling

4.2.1 Birds at holding grounds

During 1998 to 2001 a total of 50 bird species were exported at 50% or less of all birds legally harvested and kept in captivity by bird dealers (Table 3).

4.2.2 Trapping methods

Trapping of birds in all areas surveyed is dominated by traditional methods such as "birdlime". At Mto wa Mbu in Arusha for example, out of nine trappers, only one had an old mistnet he said to use it to trap birds for trade.

Table 3: Species exported at $\leq 50\%$ of all birds captured during the period 1998-2001.

Species	Number of birds captured	Number of birds exported	Birds exported (%)
Fischer's; Starling	20	0	0
Sombre Greenbul	110	0	0
Black-billed Barbet	100	0	0
Vitelline Masked Weaver	30	0	0
Cinnamon-breasted Rock Bunting	172	0	0
Red-knobbed Coot	5	0	0
Pygmy Kingfisher	4	0	0
Didric Cuckoo	11	0	0
Narina Trogon	9	0	0
Lesser seed-Cracker	1109	10	1
Chestnut Sparrow	405	10	2
Black-coloured Barbet	204	4	2
Black-headed Oriole	576	13	2
Common Silver bill	3890	147	4
Silver-cheeked Hornbill	53	2	4
Swallow-tailed Bee-eater	72	6	8
Red-headed Quelea	3790	353	9
Black and White Mannikin	1740	180	10
Locust Finch	100	10	10
Hadada Ibis	64	9	15
Speckled-fronted Weaver	2421	357	15
Black Crake	73	13	18
Baglfecht Weaver	642	114	18
Red-eyed Dove	195	35	18
Red-billed Teal	14	3	22
Open-bill Stork	40	10	25
Red-winged Starling	91	24	26
Common Bulbul	194	54	28
Kittlitz's Sandplover	257	77	30
Ring-necked Dove	439	138	31
Rufous-backed Mannikin	1330	410	31
White-necked Raven	21	7	33
Hildebrandt's Starling	937	315	34

Four-colored Bush Shrike	40	15	37
White-fronted Bee-eater	110	42	38
Laughing Dove	174	66	38
Golden-breasted Bunting	767	324	42
Brown-wooded Kingfisher	23	10	43
Spectacled Weaver	740	336	43
Tambourine Dove	123	55	45
Emerald-spotted W Dove	217	100	46
African Spoonbill	79	36	44
Ground Hornbill	183	86	47
Three-banded Plover	73	35	48
Yellow-necked Spurfowl	144	70	49
Grey-headed Silverbill	5928	2929	49
Cardinal Quelea	3450	1690	49
Grey Hornbill	196	98	50
Violet-backed Starling	313	157	50
Blacksmith Plover	158	79	50

Source: WD (in litt.)

4.3 Distribution and status

According to Britton (1980), van Perlo (1995) and personal observations, most of the bird species that were in trade during 1998 to 2001 are generally common and widely distributed in the country. None of the species is endemic to Tanzania. However, the Lesser Seed-cracker is very rare occurring only in forest edges only around Dar es Salaam area as well as in isolated southern parts of the country (Britton 1980, van Perlo 1995, C. Mlingwa pers. comm.). The Golden-breasted Starling is restricted to northeastern Tanzania (Britton 1980, van Perlo 1995).

4.4 Habitat

Birds harvested for trade included 26 species that occur in wetlands, whereas 10 species are forest dependent (Appendix 1).

4.5 Feeding habit

Birds with specialised feeding included the Lesser and Greater Flamingoes; these are filter feeders on microscopic blue-green algae *Spirulina* sp. (Mackworth-Praed & Grant 1960).

4.6 Exit points

There are only two official exit points for birds exported abroad; these are the Dar es Salaam and Kilimanjaro International Airports. The latter serves bird dealers operating in the northern circuit whereas, the former is used by dealers operating in other parts of the country.

Dar es Salaam and Kilimanjaro are, however, exit points by air transport from the country. Exit point by road is available through Namanga for dealers who can ferry their specimens abroad using the airports at Nairobi. In fact during the present survey, three people were seen each carrying a bird-cage at Namanga. Reports from a number of Namanga residents indicated that this border crossing is commonly used (illegally) by dealers who prefer to ship their birds abroad through Nairobi.

4.7 Illegal bird trade

Table 4 indicates the existence of illegal live bird trade in the country. Birds that were subject for illegal trade included the Canaries and Firefinches that were harvested but without permits. Parrots, Lovebirds and Owls were also a subject for illegal trade, for they are on a national trade *moratorium* (temporary trade ban) since 1996 (WD *in litt.*).

Table 4. Birds confiscated from illegal possession during 1999 to 2001.

Date	Species	No. of birds	Source	Trade status	Remarks
2. 10. 1999	Firefinches	120	Manyoni	No permit	Released far from their original habitat
14.6.1999	Egyptian Goose	1	Msasani, Dsm	No permit	Released to its original habitat
14.3.2000	Grey Parrot	2	Upanga, Dsm	No permit	Died
8.5.2000	Crown Crane	1	Oysterbay, Dsm	Out of trade	Released far from their original habitat
	Grey Parrot	1	"	Out of trade	"
	Guineafowls	2	"	No permit	"
	Lesser Flamingo	1	"	No permit	"
29.5.2000	Grey Parrot	15	Sinza, Dsm	Out of trade	8 died in captivity; 7 released away from their habitats
18.10.2000	Brown Parrot	1	Royal Palm, Dsm	Out of trade	Died
26.12.2000	Owl	1	Oysterbay, Dsm	Out of trade	Released far from its habitat
	Zanzibar Red Bishop	3	Kinondoni, Dsm	No permit	"
	Whydah bird	2	Kinondoni, Dsm	No permit	"
2.5.2001	Lovebirds	4	Bus Terminal Ubungo, Dsm	Out of trade	Died
17.7.2001	Lovebirds	9	Mbezi Beach Hotel, Dsm	Out of trade	Released far from their habitat
24.9. 2001	Canaries	300	Kibaha Bus Stand, Coast	No permit	90 died, others taken back to their original habitat
	Cordonbleu	40	"	No permit	"
	Blue-c Cordonbleu	80	"	No permit	"
10.10.2001	Owl	1	Temeke, Dsm	Out of trade	Died

Source: WD (in litt.)

5.0 DISCUSSION

5.1 Socio-economic importance of the bird trade

The bird trade in Tanzania is justified from the socioeconomic point of view in that, like elsewhere in the world, it provides employment and revenue to the bird trappers in villages and to dealers and their associates based in urban areas (Mulliken *et al* 1995). It is estimated that between 12,500 and 25,000 Tanzanians are involved in the bird trade (Edwards & Broad 1995). The trade also justifies the work of government employees that are involved in the control and supervision processes of the entire business. The revenue generated from the trade benefits all the groups involved including the government; for example, government revenue from live animal trade (birds being a dominant component) for the year 2000/2001 was Tshs 155,708,435.00 (WD *in litt.*).

5.2 Government policies and trade control

In recognition of the need to control the scale of the trade in live birds and to ensure sustainable resource utilisation, the Government of Tanzania developed and adopted in 1993 the Policy and Management Plan for Tanzania's Avifauna, with Special Reference to the Live Bird Trade (MNRT 1993). The commitment of the Tanzanian Government on sustainable consumptive utilisation of wildlife resources including birds is also stipulated in the Wildlife Policy (MNRT 1998).

Regulations for the collection of live birds from the wild are clearly laid out in the Wildlife Conservation Act 1974 (URT 1974). The Act requires, *inter alia*, wildlife officers to inspect holding grounds on a quarterly basis, and that it contains comprehensive rules regarding transport conditions for live birds.

5.3 Vulnerable birds in trade

- Species that are subject of illegal trade

Despite the good controls and relevant government policies being in place to guide the sustainable utilisation of birds for the international trade, a few fundamental problems remain. For example, birds that are subjected to illegal trade (see Table 4) i.e. species that are harvested above national quotas or are not officially in trade, may be classified as vulnerable. It is possible that the situation of illegal trade indicated in Table 4 is probably the minimum of the true picture in Dar es Salaam alone, for there might have been many more cases of illegal possession of birds than what is indicated here. Such birds were harvested over and above the national quotas. Illegal possession of birds that were finally exported abroad has also been reported in the past (Rosser & Milliken 1995, Steinmetz *et al* 1998).

- Species occurring in fragile habitats

The other groups of apparently vulnerable species include birds of forests and wetlands (see Appendix 1); both habitats are generally fragile and birds occurring there are faced with the first problem of habitat loss or degradation.

- Species with restricted distribution or rare

Also, birds with restricted distribution in Tanzania such as the Golden-breasted Starling and Lesser Seed-cracker can also be said to be vulnerable unless there is strict control on harvest levels. In addition to their restricted distribution, populations of these species are not known. The African Grey Parrot has a very restricted distribution in Tanzania, occurring only in Kagera Region in forests on the Tanzania/Uganda border. The Grey Parrot is out of trade in the national quota, but it is commonly a subject for illegal trade (see Table 4).

- **Handling**

Although during the survey liming was reported to be used by trappers to capture birds, it is prohibited by the government (Steinmetz *et al* 1998), due to damage and even mortality it inflicts/causes on birds that are trapped on lime (Howell 1995, Steinmetz *et al* 1998). In this case, smaller birds are comparatively more susceptible to liming than larger birds, thus most of the bird species in trade may be vulnerable if liming is common method of trapping birds.

- **Species with special feeding habit**

We regard species with specialised feeding such as Lesser and Greater Flamingoes as vulnerable, for the birds are difficult to feed them during transportation and at handling grounds before geetign to final destinations

5.4 The problem of bird identification

The problem of bird identification even among personnel of the management authority (i.e. WD) is manifested in Table 4; a number of group names are used instead of specific species names. The same problem is common among dealers as well as trappers (pers. observ.). This means, species not in trade may be included in the trade.

5.5 Conclusions and recommendations

Since late 1980s Tanzania has taken a number of important and commendable steps to improve its management and regulation of the wild bird trade. Notable steps include the following:

- Policy on Management Plan for Tanzania's Avifauna, with Special Reference to the Live Bird Trade (1993)
- Wildlife Policy of Tanzania (1998)
- Live Animal Trade Regulations as per WCA (1974).

In addition, WD has established a national committee, comprising of various stakeholders including TAWIRI, WCST animal experts from the University of Dar es Salaam, etc., that helps to determine the national annual quotas for the various species to be traded. Furthermore, recently WD sponsored a national count of flamingoes that was carried out by TAWIRI in January 2002.

• Recommendations

Despite successes registered so far in the management of the bird trade in Tanzania, we suggest the following for further improvement:

- Field surveys of birds in trade to determine their population status; this would help to set up sustainable export quotas as well as to determine suitable harvest areas.
- Training of management personnel (WD) in bird identification (Baker 1995); this would help to ensure that only species in trade are exported.
- Training of bird dealers and trappers in bird identification; this would ensure that only species in trade are harvested from the wild.
- Special permits should apply for species that are difficult to handle, flamingoes in this case; this would ensure that only dealers with competence to organise appropriate trapping and holding in captivity are given export permits.
- WD should place full time staff at all important exit points (DIA & KIA) including border areas such as Namanga, etc., in order to further control any illegal trade.

WCST should also continue to collaborate with other stakeholders such as TAWIRI to conduct training and awareness campaigns on the birds of Tanzania including those in trade.

A two months work including both survey and report writing was too short for this important undertaking. A longer study is required to better understand that still face the wild bird trade in Tanzania. WCST and TAWIRI could work out a joint proposal to solicit funding towards addressing bird trade issues in the country.

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7. APPENDICES

Appendix I: Birds exported during the period 1998 - 2001.

Common name	Scientific name*	1998	1999	2000	2001
Blue-capped Cordonbleu	<i>Uraeginthus cyanocephalus</i>	22229	30,000	18,640	26,605
Purple Grenadier	<i>Uraeginthus ianthinogaster</i>	7603	5257	2529	3563
Red-cheeked Cordonbleu	<i>Uraeginthus bengalus</i>	6826	14042	6598	1750
Peters' Twinspot	<i>Hypargos niveoguttatus</i>	6665	6336	2154	2895
Yellow-rumped Seed-eater	<i>Serinus atrogularis</i>	3826	6123	3851	2735
Yellow-crowned Canary	<i>Serinus canicollis</i>	3798	3122	1861	1687
Yellow-fronted Canary	<i>Serinus mozambicus</i>	3775	5989	4209	1687
Zanzibar Red Bishop	<i>Euplectes nigroventris</i>	3540	9009	6160	980
Southern Red Bishop	<i>Euplectes orix</i>	3125	4672	1300	1715
Zebra Waxbill	<i>Amandava subflava</i>	3000	10000	4622	600
Southern Cordonbleu	<i>Uraeginthus angolensis</i>	2699	3466	2180	2750
Crimson-rumped Waxbill	<i>Estrilda rhodopyga</i>	2385	5261	0	1265
African Firefinch	<i>Lagonosticta rubricata</i>	2267	3217	2175	1670
African Citril	<i>Cerinus hypostictus</i>	1951	1848	1511	250
Red-billed Firefinch	<i>Lagonosticta senegala</i>	1460	5160	0	512
Black-cheeked Waxbill	<i>Estrilda erythronotus</i>	1268	3658	530	1806
Golden Weaver	<i>Ploceus subaureus</i>	1027	2699	30	1205
Eastern Paradise Whydah	<i>Vidua paradisaea</i>	872	1722	1529	485
Pin-tailed Whydah	<i>Vidua macroura</i>	786	1036	118	10
Golden-backed Weaver	<i>Ploceus jacksonii</i>	760	850	1261	180
Superb Starling	<i>Lamprolornis superbus</i>	736	1400	1351	960
Black-winged Red Bishop	<i>Euplectes hordeaceus</i>	680	560	290	0
Red and Yellow Barbet	<i>Trachyphonus erythrocephalus</i>	538	476	157	98
Grey-headed Silverbill	<i>Lonchura griseicapilla</i>	537	1645	747	774
Yellow Bishop	<i>Euplectes capensis</i>	517	820	667	50
Masked Weaver	<i>Ploceus intermedius</i>	500	860	1030	100
Cut-throat	<i>Amadina fasciata</i>	486	2296	2086	955
Brimstone Canary	<i>Serinus sulphuratus</i>	365	661	805	600
Red-billed Quelea	<i>Quelea quelea</i>	336	405	1290	100
Greater Flamingo	<i>Phoenicopterus ruber</i>	1	320	196	228
Straw-tailed Whydah	<i>Vidua fischeri</i>	286	414	295	15
Speckle-fronted Weaver	<i>Sporopipes frontalis</i>	267	90	0	0
Black-headed Weaver	<i>Ploceus cucullatus</i>	264	1390	570	200
Bronze Mannikin	<i>Lonchura cucullata</i>	243	220	290	0
Golden-breasted Starling	<i>Cosmopsarus regius</i>	3	215	976	770
Hartlaub's Turaco	<i>Tauraco hartlaubi</i>	2	215	134	108
Streaky Seed-eater	<i>Serinus striolatus</i>	200	590	0	102
Crested Guinea fowl	<i>Gallus pucherani</i>	198	0	0	86
Lesser Flamingo	<i>Phoeniconaias minor</i>	1	194	431	360
Quailfinch	<i>Oryzopsis atricollis</i>	190	130	0	0
Lilac-breasted Roller	<i>Coracias caudata</i>	186	215	100	110

d'Arnaud's Barbet	<i>Trachyphonus damaudii</i>	180	132	52	110
White-headed Buffalo Weaver	<i>Dinemellia dineelli</i>	167	461	0	80
White-winged Widowbird	<i>Euplectes albonotatus</i>	164	640	80	287
White-bellied Go-away Bird	<i>Corythaixoides leucogaster</i>	156	142	65	16
Common Silverbill	<i>Lonchura malabrica</i>	147	0	0	315
Golden-breasted Bunting	<i>Embriza flaviventris</i>	132	167	25	221
Hildebrandt's Starling	<i>Lamprotornis hildebrandti</i>	120	113	82	127
Baglafaecht Weaver	<i>Ploceus baglafaecht</i>	114	0	0	0
Robin Chat	<i>Cossypha caffra</i>	114	47	48	24
Von der Decken's Hornbill	<i>Tockus deckeni</i>	102	288	29	36
Livingstone's Turaco	<i>Tauraco livingstonii</i>	2	100	65	50
Ring-collared Widowbird	<i>Euplectes ardens</i>	98	0	0	0
Vulturine Guinea fowl	<i>Acryllium vulturinum</i>	78	334	216	60
Red-collared Widowbird	<i>Euplectes ardens</i>	78	811	100	0
Green Pigeon	<i>Treron calva</i>	73	76	10	0
Sacred Ibis	<i>Threskiomis aethiopicus</i>	1	71	34	0
Holub's Golden Weaver	<i>Ploceus xanthops</i>	70	0	0	0
Magpie Shrike	<i>Corvinella melanoleuca</i>	70	0	0	0
Killitz's Sandplover	<i>Charadrius pecuarius</i>	1	68	9	0
Pink-backed Pelican	<i>Pelecanus rufescens</i>	1	65	50	10
Rufous-crowned Roller	<i>Coracias naevia</i>	62	95	98	0
Oriole Finch	<i>Linurgus olivaceus</i>	1	59	90	326
Chestnut-bellied Sandgrouse	<i>Pterocles exustus</i>	58	14	40	0
Montane White eye	<i>Zosterops poliogaster</i>	55	510	488	165
Red-headed Quelea	<i>Quelea erythrops</i>	53	300	0	150
Blue-napped Mousebird	<i>Urocolius macrourus</i>	50	88	90	80
Rueppell's Starling	<i>Lamprotornis purpuropterus</i>	50	6	0	0
Red-billed Buffalo Weaver	<i>Buffalornis niger</i>	50	30	0	276
Crowned Plover	<i>Vanellus coronatus</i>	48	104	3	46
Ground Hornbill	<i>Bucorvus cafer</i>	46	32	8	54
Yellow-necked Spurfowl	<i>Francolinus leucoscepus</i>	46	24	0	25
Pied Kingfisher	<i>Ceryle rudis</i>	1	42	4	0
White Pelican	<i>Pelecanus onocrotalus</i>	1	42	26	75
Hamerkop	<i>Scopus umbretta</i>	1	42	14	2
Pied Crow	<i>Corvus albus</i>	36	48	0	0
Red-billed Hornbill	<i>Tockus erythrorhynchus</i>	33	43	31	65
Helmeted Guinea fowl	<i>Numida meleagris</i>	30	10	72	30
Speckled Mousebird	<i>Colius striatus</i>	30	175	0	25
Bare-faced Go-away Bird	<i>Corythaixoides personata</i>	30	50	87	10
Green-winged Pytilia	<i>Pytilia melba</i>	30	6242	3028	1870
Common Waxbill	<i>Estrilda astrild</i>	30	6197	2620	527
Crested Francolin	<i>Francolinus sephaena</i>	20	0	0	0
Emerald-spotted Wood Dove	<i>Turtur chalcospilos</i>	20	30	50	80
Laughing Dove	<i>Streptopelia senegalensis</i>	20	26	20	0
Mourning Dove	<i>Streptopelia decipiens</i>	20	76	75	20
Abdim's Stork	<i>Ciconia abdimii</i>	1	19	0	0
Blacksmith Plover	<i>Vanellus armatus</i>	1	19	60	0

Yellow-throated Sandgrouse	<i>Pterocles gullularis</i>	18	2	0	0
Namaqua Dove	<i>Oena capensis</i>	15	210	25	170
Brown-breasted Barbet	<i>Lybius melanopterus</i>	13	10	0	0
African Jacana	<i>Actophilornis africanus</i>	1	6	0	10
Black Crane	<i>Limnocolax flavirostra</i>	1	0	0	0
Crowned Hornbill	<i>Tockus albotoxerminatus</i>	2	12	168	8
Trumpeter Hornbill	<i>Bycanistes bucinator</i>	2	12	44	15
Black-headed Heron	<i>Ardea melanocephala</i>	1	11	2	2
Chestnut-bellied Sandgrouse	<i>Pterocles exustus</i>		11	0	0
Lesser Seed-cracker	<i>Pyrenestes minor</i>	2, 3	11	0	0
Locust Finch	<i>Ortygospiza locustella</i>		10	0	0
Red-eye Dove	<i>Streptopelia semitorquata</i>		10	0	25
Marabou Stork	<i>Leptoptilos crumeniferus</i>	1	7	44	13
Spotted Thicknee	<i>Burhinus capensis</i>		7	10	4
Brown-hooded Kingfisher	<i>Halcyon albiventris</i>		7	3	0
Grey Hornbill	<i>Tockus nasulus</i>		7	44	47
African Spoonbill	<i>Platalea alba</i>	1	6	30	0
Hadada Ibis	<i>Bostrychia hagedash</i>	1	6	3	0
Cattle Egret	<i>Bubulcus ibis</i>	1	4	15	15
Open-billed Stock	<i>Anastomus lamelligerus</i>	1	2	10	0
Egyptian Goose	<i>Alopochen aegyptiacus</i>	1	2	0	0
Violet-backed Starling	<i>Cinnyricinclus leucogaster</i>		1	116	40
Red-faced Crimson-wing	<i>Cyrtospiza reichenovii</i>		0	2438	950
Abyssinian Crimson-wing	<i>Cyrtospiza salvadorii</i>		0	640	150
Cardinal Quelea	<i>Quelea cardinalis</i>		0	400	0
Chestnut Weaver	<i>Ploceus rubiginosus</i>		0	352	0
Spectacled Weaver	<i>Ploceus ocularis</i>		0	300	36
Fan-tailed Widowbird	<i>Euplectes axillaris</i>		0	300	0
Black and White Mannikin	<i>Lonchura bicolor</i>		0	180	0
Greater Cormorant	<i>Phalacrocorax carbo</i>	1	0	50	50
Blue-eared Starling	<i>Lamprolornis chalybaeus</i>		0	60	176
Wattled Starling	<i>Creatophora cinerea</i>		0	46	60
Three Banded Plover	<i>Charadrius tricollaris</i>	1	0	35	0
Red-billed Oxpecker	<i>Buphagus erythrorhynchus</i>		0	29	3
Red-necked Spurfowl	<i>Francolinus afer</i>		0	25	12
Chestnut-banded Plover	<i>Charadrius pallidus</i>	1	0	20	0
Two-banded Courser	<i>Rhinoptilus africanus</i>		0	14	0
Fischer's Sparrow Lark	<i>Eremopterix leucopareia</i>		0	10	0
Coqui Francolin	<i>Francolinus coqui</i>		0	10	130
White-faced Whistling Duck	<i>Dendrocygna viduata</i>	1	0	8	0
Spotted Morning Thrush	<i>Cichladusa guttata</i>		0	7	55
White-necked Raven	<i>Corvus albicollis</i>		0	7	0
White-eared Barbet	<i>Stactalaema leucotis</i>	2	0	6	0
Shelley's Greenbul	<i>Andropadus masukuensis</i>	2	0	5	0
Spur-winged Goose	<i>Plectropterus gambensis</i>	1	0	4	0
White-crowned Shrike	<i>Eurocephalus rueppelli</i>		0	4	0
Capped Wheater	<i>Oenanthe pileata</i>		0	4	0

Red-billed Teal	<i>Anas erythrorhyncha</i>	1	0	3	0	0
Black-collared Barbet	<i>Lybius torquatus</i>		0	2	2	0
Rufous-backed Mannikin	<i>Lonchura nigricaps</i>		0	0	410	0
Thick-billed Seed-eater	<i>Serinus burtoni</i>		0	0	264	0
Black-fronted Bush shrike	<i>Malaconotus nigrifrons</i>	2	0	0	77	0
Yellow-billed Shrike	<i>Corvella corsina</i>		0	0	69	23
Tambourine Dove	<i>Turtur tympanistria</i>	2	0	0	55	10
Dark capped Bulbul	<i>Pycnonotus tricolor</i>		0	0	54	0
Grey-headed Bush Shrike	<i>Malaconotus blanchoti</i>		0	0	49	0
White-fronted Bee-eater	<i>Merops bullockoides</i>		0	0	42	0
Ring-necked Dove	<i>Streptopelia capicola</i>		0	0	40	43
Grey-headed social Weaver	<i>Pseudonigrita anauli</i>		0	0	40	0
White-browed Coucal	<i>Centropus superciliosus</i>		0	0	34	0
Yellow-billed Stork	<i>Mycteria ibis</i>	1	0	0	26	40
Red-winged Starling	<i>Onychognathus morio</i>		0	0	24	0
Black-headed Oriole	<i>Oriolus larvatus</i>		0	0	13	70
Chestnut Sparrow	<i>Passer eminibey</i>		0	0	10	24
Swallow-tailed Bee-eater	<i>Merops hirundineus</i>		0	0	6	0
Silvery-cheeked Hornbill	<i>Bycanistes brevis</i>	2	0	0	2	73
White-bellied Go-away Bird	<i>Corythaixoides leucogaster</i>		0	0	0	14
Canaries			0			1625
White-bellied Canary	<i>Serinus dorostriatus</i>		0			1040
Montane White-eye	<i>Zosterops kikuyuensis</i>		0			520
Widowbirds			0			330
Cinnamon-chested Bee-eater	<i>Merops oreobates</i>		0			100

*= Wetland, forest and rare species are indicated in number:

1: Wetland species

2: Forest species

3: Rare/restricted range species

Appendix 2: Terms of Reference to carry out survey on vulnerable species in the live bird trade in Tanzania.

The consultant shall carry out the survey as follows:

1. To establish vulnerable/ most threatened bird species traded in Tanzania including areas where such species are found.
2. Provide numbers of vulnerable/ most threatened birds traded in the past three years, where possible.
3. Identify methods used to trap birds.
4. Get information on transportation to and condition at holding grounds.
5. Identify potential and existing exit points for illegal live bird trade in Tanzania.
6. Ensure that stakeholders are fully involved/ consulted in the survey.
7. The survey work should not exceed two months.
8. Produce report for the findings within a period of two months.