



Red-crested Bustard (*Lophotis ruficrista*)

Annex 1

Region 1: Southern Africa

BUSTARD
Multi-species Action Plan

COUNTRY: Angola

Species	Population Size	Population trend	National Red List status	Regional Red List status	National Protection Status	Presence in Country	Months of presence	Key sites	Key Threats	Priority Actions
Kori Bustard	Unknown	Unknown	N/A	N/A	Unknown	Resident	Unknown	Cuando Cubango	Unknown	Identify and address key knowledge gaps.
Ludwig’s Bustard	Likely <5,000	Unknown	N/A	N/A	Unknown	Possibly partial migrant. Possibly nomadic in some areas. Possibly resident in open shrubland and on plains (2000)	Dec-Jan (Namibe)	Namibe province, Iona NP	U: Poaching; Predation (Natural); Climate change (Desertification); Lack of awareness	Research population size and determine trends through coordinated and repeated surveys. Investigate connectivity between Angolan, Namibian and South African populations (GPS tracking and/or stable isotope analysis).
Denham’s Bustard	Unknown	Unknown	N/A	N/A	Unknown	Probably not uncommon resident. No breeding records (2000)	Unknown	Across C plateau from Huíla to Bié N to Cuanza Sul; Malanje; Moxico; Lunda Northe and Lunda Sul	Unknown	Identify and address key knowledge gaps.
White-bellied Bustard	Unknown	Unknown	N/A	N/A	Unknown	Resident	Unknown	C Plateau from Cuando Cubango N through Moxico; Bié and Lunda Sol to Lunda Norte and W to Malanje	Unknown	Identify and address key knowledge gaps.
Rüppell’s Bustard	Unknown	Unknown	N/A	N/A	Unknown	Resident	Unknown	SW Angola; Iona NP	Unknown	Identify and address key knowledge gaps.
Red-crested Bustard	Unknown	Unknown	N/A	N/A	Unknown	Possibly resident (2000)	Unknown	From S Namibe and W Huíla N to Catumbela; Benguela	Unknown	Identify and address key knowledge gaps.
Black-bellied Bustard	Unknown	Unknown	N/A	N/A	Unknown	Likely resident	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.

References:

Dean, W.R.J. 2000. The Birds of Angola. British Ornithologists’ Union 2000. The Natural Histroy Museum, Tring, Herts HP23 6AP, UK. pp. 80–81.

del Hoyo, J., Elliott, A., Sargatal, J. 1996. *Handbook of the Birds of the World. Vol. 3. Hoatzin to Auks*. Lynx Editions, Barcelona, Spain.

COUNTRY: Botswana

Species	Population Size	Population trend	National Red List status	Regional Red List status	National Protection Status	Presence in Country	Months of presence	Key sites	Key Threats	Priority Actions
Kori Bustard	Unknown	Declining (1991-2005)	N/A	N/A	Unknown	Unknown	Unknown	N Tuli GR	Unknown	Identify and address key knowledge gaps.
Ludwig’s Bustard	Likely <5,000 ind.	Unknown	N/A	N/A	Protected	Unknown, possibly breeding and partial migrant	Year-round, with a peak in Nov-Mar	Kgalagadi Transfrontier Park	U: Predation (Natural); Poaching; Climate change (Desertification); Lack of awareness	Research population size and determine trends through coordinated and repeated surveys, including remote parts of the Kgalagadi Transfrontier Park. Investigate presence outside the boundary of the Kgalagadi, including information on the species and its use from local tribes.
Denham’s Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
White-bellied Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Red-crested Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Northern Black Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Black-bellied Bustard	Unknown	Unknown	N/A	N/A	Unknown	Likely resident	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.

COUNTRY: Eswatini

Species	Population Size	Population trend	National Red List status	Regional Red List status	National Protection Status	Presence in Country	Months of presence	Key sites	Key Threats	Priority Actions
Denham’s Bustard	Unknown	Unknown	N/A	VU	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
White-bellied Bustard	Unknown	Unknown	N/A	VU	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Red-crested Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Black-bellied Bustard	Unknown	Unknown	N/A	N/A	Unknown	Likely resident	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.

COUNTRY: Lesotho

Species	Population Size	Population trend	National Red List status	Regional Red List status	National Protection Status	Presence in Country	Months of presence	Key sites	Key Threats	Priority Actions
Ludwig’s Bustard	Likely <1,000 ind.	Declining	N/A	EN	Protected	Migrant	Nov-Mar	Unknown	U: Collision (Overhead cabling, Wind turbines); Poaching; Lack of awareness	Research population size and determine trends through coordinated and repeated surveys. Determine potential impact of proposed renewable energy development.
Denham’s Bustard	Unknown	Unknown	N/A	VU	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Blue Bustard	<1,000 ind.	Unknown	N/A	VU	Not protected	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Northern Black Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.

COUNTRY: Malawi

Species	Population Size	Population trend	National Red List status	Regional Red List status	National Protection Status	Presence in Country	Months of presence	Key sites	Key Threats	Priority Actions
Denham’s Bustard	Unknown	Unknown	NT	N/A	Protected within Nyika NP	Resident	Year-round	Nyika, South Viphya Plateaux, south to Ntchisi District	U: Habitat loss (Pine afforestation)	Identify and address key knowledge gaps.
Black-bellied Bustard	Unknown	Unknown	N/A	N/A	Unknown	Likely resident	Breeding from Nov-Feb	Nyika, regular to 2,200 m; S Viphya; Malosa; Nyika and Kasangu NP; Vwaza Marsh and Nkhotakota WS; Liwonde; Lengwe NP and adjacent Reserves	U: Habitat loss (Extensive cultivation, Increasing human pressure, esp. in Shire Highlands and Lower Shire Valley); Anthropogenic disturbance (Human pressure)	Identify and address key knowledge gaps.

References:

Dowsett-Lemaire, F., Dowsett, R.J. 2006. *The Birds of Malawi*. Tauraco Press and Aves a.s.b.l. Liège, Belgium. pp. 184–187.

COUNTRY: Mozambique

Species	Population Size	Population trend	National Red List status	Regional Red List status	National Protection Status	Presence in Country	Months of presence	Key sites	Key Threats	Priority Actions
Kori Bustard	Unknown	Declining (1970–1999)	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Denham’s Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
White-bellied Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Red-crested Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Black-bellied Bustard	Unknown	Unknown	N/A	N/A	Unknown	Likely resident	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.

COUNTRY: Namibia

Species	Population Size	Population trend	National Red List status	Regional Red List status	National Protection Status	Presence in Country	Months of presence	Key sites	Key Threats	Priority Actions
Kori Bustard	5,000 – 10,000 ind.	Unknown, possibly declining	NT	N/A	Protected	Resident	Year-round	Throughout Namibia	U: Collision (Overhead cabling, Wind turbines); Habitat loss and fragmentation (Energy infrastructure); Land-use change; Poaching	Ensure effective Environmental Management Plan (EMP) implementation, especially for marking and monitoring power lines. Promote strategic planning in renewable energy that accounts for bustard ecology. Collect data on wildlife-power line incidents and survey representative lines regularly. Train stakeholders on power line risks and support research on population trends and collision mitigation.
Ludwig’s Bustard	Likely >10,000 ind.	Possibly declining	EN	N/A	Protected	Breeding, partial migrant	Year-round, increasing in the W during winter and in the E during summer	Namib Desert: Tsau Khaeb NP, Namib-Naukluft Park	U: Collision (Overhead cabling); Predation (Natural); Poaching; Collision (Fencing); Climate change (Desertification); Anthropogenically subsidized predation (Corvids); Habitat loss (Mining); Lack of awareness	Ensure effective EMP implementation, especially for marking and monitoring power lines. Promote strategic planning in renewable energy that accounts for bustard ecology. Collect data on wildlife-power line incidents and survey representative lines regularly. Train stakeholders on power line risks and support research on population trends and collision mitigation.
Denham’s Bustard	Unknown	Unknown	NT	N/A	Protected	Non-breeding; Migrant	Unknown	NE Namibia (Zambezi Region); Etosha (Andoni)	U: Collisions (Overhead cabling, Wind turbines); Habitat loss and fragmentation, and disturbance (Energy infrastructure, often in previously undisturbed areas); Poaching	Ensure effective EMP implementation, especially for marking and monitoring power lines. Promote strategic planning in renewable energy that accounts for bustard ecology. Collect data on wildlife-power line incidents and survey representative lines regularly. Train stakeholders on power line risks and support research on population trends and collision mitigation.
Karoo Bustard	Unknown	Unknown	N/A	N/A	Protected	Resident	Year-round	Namib-Naukluft Park; Tsau Khaeb NP; S Namibia	U: Collision (Overhead cabling, Wind turbines); Habitat loss and fragmentation (Energy infrastructure, Land-use change) Anthropogenic disturbance (Infrastructure developments in previously undisturbed areas); Poaching	Ensure effective EMP implementation, especially for marking and monitoring power lines. Promote strategic planning in renewable energy that accounts for bustard ecology. Collect data on wildlife-power line incidents and survey representative lines regularly. Train stakeholders on power line risks and support research on population trends and collision mitigation.

Rüppell's Bustard	99,900 ind.	Unknown	LC (Near-endemic, 90% in Namibia)	N/A	Protected	Resident	Year-round	W Namibia; From the escarpment W to the coast; avoids the unvegetated dunes of the Namib sand sea S of Walvis Bay; Namib-Naukluft Park	U: Collision (Overhead cabling, Wind turbines); Habitat loss and fragmentation (Energy infrastructure); Disturbance; Poaching	Ensure effective EMP implementation, especially for marking and monitoring power lines. Promote strategic planning in renewable energy that accounts for bustard ecology. Collect data on wildlife-power line incidents and survey representative lines regularly. Train stakeholders on power line risks and support research on population trends and collision mitigation.
Red-crested Bustard	Unknown	Unknown	N/A (S African near-endemic, 35% in Namibia)	N/A	Protected	Resident	Year-round	N and NE parts of Namibia, excluding coast	U: Collision (Overhead cabling, Wind turbines); Habitat loss and fragmentation (Energy infrastructure); Disturbance; Poaching	Ensure effective EMP implementation, especially for marking and monitoring power lines. Promote strategic planning in renewable energy that accounts for bustard ecology. Collect data on wildlife-power line incidents and survey representative lines regularly. Train stakeholders on power line risks and support research on population trends and collision mitigation.
Northern Black Bustard	Unknown	Unknown	LC (S African endemic; 35% in Namibia)	N/A	Protected	Resident breeder	Year-round	Throughout Namibia, excluding coast	U: Collision (Overhead cabling, Wind turbines); Habitat loss and fragmentation (Energy infrastructure); Anthropogenic disturbance; Poaching	Identify and address key knowledge gaps.
Black-bellied Bustard	Unknown (Low numbers)	Declining	LC	N/A	Protected	Resident	Unknown	NE Namibia	U: Collision (Overhead cabling, Wind turbines in Zambezi Region); Anthropogenic disturbance (Energy infrastructure); Habitat loss, degradation and fragmentation (Human settlement, Energy infrastructure, Overgrazing, Agriculture); Poaching; Anthropogenically subsidized predation (Dogs) M: Collision (Overhead cabling, E of Grootfontein-Tsumkwe Area)	Ensure effective EMP implementation, especially for marking and monitoring power lines. Promote strategic planning in renewable energy that accounts for bustard ecology. Collect data on wildlife-power line incidents and survey representative lines regularly. Train stakeholders on power line risks and support research on population trends and collision mitigation.

COUNTRY: South Africa

Species	Population Size	Population trend	National Red List status	Regional Red List status	National Protection Status	Presence in Country	Months of presence	Key sites	Key Threats	Priority Actions
Kori Bustard	2,000 – 5,000 ind. (2000)	Declining	N/A	NT	Protected	Resident	Year-round	N Cape: Kgalagadi Transfrontier Park; Meerkat NP Lowveld: Kruger NP N parts of the Bushveld (including Mapungubwe NP); S Nama Karoo (between Beaufort West and Aberdeen); Botsalano NR	H: Collision (Overhead cabling) M: Climate change (Habitat shifting and droughts); Habitat loss and degradation (Land-use change, Invasive alien plant species) U: Poaching	Expand protected areas in the species’ range. Study movements and spatial ecology in relation to threats. Update population estimates using standard methods. Address knowledge gaps on breeding, population size, and movement to identify source and sink areas.
Ludwig’s Bustard	52,290 – 99,160 ind.	Declining	N/A	EN	Protected	Breeding, Partial migrant	Year-round, increasing in W (Succulent Karoo) during winter and in E (Nama Karoo) during summer	Namaqua NP; Knersvlakte NR; Nieuwoudtville; Meerkat NP; Tankwa Karoo NP; Karoo NP; Mountain Zebra NP; Camdeboo NP; Augrabies Falls NP; Orange River Mouth Wetlands; Mattheus-Gat Conservation Area; Haramoep and Black Mountain Mine; Bitterputs Conservation Area; Platberg-Karoo Conservancy; Camdeboo NP; Olifants River Estuary; Benfontein; Upper Orange River Bushmanland Interior; Cambedoo; Gouritz Cluster – Towsberg; Hantam; Knersvlakte; N and S Namaqualand Hardeveld; Roggeveld	C: Collisions (Overhead cabling) H: Habitat loss and fragmentation (Mining, Energy infrastructure) M: Poaching; Climate change (Desertification); Collision (Wind turbines, Fencing) L: Lack of awareness U: Predation (Natural); Anthropogenically subsidized predation (Invasive raptors)	Locate and protect lek sites, especially in areas facing energy development. Explore options to underground or re-route powerlines near key sites and flyways. Complete bird diverter effectiveness study and share results with key stakeholders. Assess effectiveness of nocturnal diverters and make recommendations regarding national requirements. Improve population estimates and trends through repeated, coordinated surveys, including in remote areas. Use GPS tracking to study survival, migration, and flight behavior. Finalize research on breeding and demographics to support viability analysis. Assess predation by non-native Martial Eagles using pylons and model potential impacts. Study connectivity between South African, Namibian, and Botswanan populations.

Denham’s Bustard	<10,000 ind.	Declining	N/A	VU	Protected	Resident breeder, Partial migrant	Year-round	Overberg; Highveld Grasslands; Grasslands near Utrecht; Natal Midlands; Foothills of Drakensberg Escarpment; Thicket Biome; KwaZulu-Natal Mistbelt Grasslands; iSimangaliso Wetland Park; Blyde River Canyon; Amatola - Katberg Mountain	C: Collisions (Overhead cabling) M: Collisions (Wind turbines); Agricultural intensification; Habitat loss (Afforestation); Climate change (Habitat shifting and droughts) U: Poaching (scale and intensity unknown)	Expand protected areas in the species’ range. Study movements and spatial ecology in relation to threats. Update population estimates using standard methods. Address knowledge gaps on breeding, population size, and movement to identify source and sink areas.
White-bellied Bustard	1,000 – 2,000 mature ind.	Declining	N/A	VU	Protected	Resident	Year-round	Grassland Biome (Gauteng, Mpumalanga, KwaZulu-Natal, Limpopo); Eastern Cape	H: Habitat loss and degradation (Agriculture, Afforestation, Overgrazing) L: Habitat loss (Urbanization) U: Poaching; Collision (Wind turbines)	Protect larger areas of the Grassland Biome. Determine population size, density, and movement across sub-populations. Study life-history traits in different sub-populations. Clarify the taxonomic status of <i>E. s. barrowii</i> and <i>E. s. mackenziei</i> .
Blue Bustard	2,500 – 10,000	Declining	N/A	VU	Not protected	Resident	Year-round	Highveld Grasslands near Morgenzon and Daggakraal; Bethulie; Colesberg; Devon; Suikerbosrand NR; Golden Gate NP; Devon Grasslands; Wakkerstroom; Gariep Dam PA	C: Habitat loss; Agricultural intensification H: Habitat loss (Mining) M: Collision (Overhead cabling, Wind turbines) L: Habitat loss (Afforestation)	Expand protected areas in the species’ range. Study movements and spatial ecology in relation to threats. Update population estimates using standard methods. Address knowledge gaps on breeding, population size, and movement to identify source and sink areas.
Karoo Bustard	76,000 – 130,203 mature ind.	Declining	N/A	N/A	Protected	Resident	Year-round	Nama Karoo (Karoo NP); Meerkat NP; Namaqua NP; Augrabies Falls NP; Mattheus-Gat Conservation Area; Haramoep and Black Mountain Mine; Bitterputs Conservation Area; Platberg-Karoo Conservancy; Camdeboo NP; Olifants River Estuary; Upper Orange River; Overberg	H: Collision (Overhead cabling); Climate change (Habitat shifting and droughts); Habitat loss (Land-use change) M: Habitat loss (Mining); Collision (Wind turbines) U: Anthropogenically subsidized predation (Invasive raptors, Corvids)	Monitor populations to detect declines and their causes. Assess and mitigate habitat loss from energy and mining projects. Reduce mortality from powerline and wind turbine collisions. Evaluate impacts of climate change and habitat changes. Quantify wind turbine collision mortality and its effect on population trends. Investigate

										impacts on bustard survival rates of predators incl. Martial Eagles & Pied Crows using novel habitats (pylons).
Red-crested Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Southern Black Bustard	Likely <10,000 ind.	Declining	N/A	VU	Protected	Resident	Year-round	Fynbos Biome; Overberg; Bokkeveld Escarpment; De Hoop; Gouritz Cluster (Canca Coast, Kammanassie, Touwsberg); Hantam; Knersvlakte; Namaqualand; Hardeveld South; Namaqualand Sandveld South; West Coast Sandveld; Steytlerville Karoo; Swartruggens; Touws River; West Coast Biosphere Reserve; Succulent Karoo; Nama Karoo; Aberdeen Basin; Albany Thicket; Addo Elephant NP	C: Habitat loss (Mining, Land-use change) H: Collision (Overhead cabling, Wind turbines) U: Anthropogenically subsidized predation (Corvids); Climate change	Protect critical habitats from mining on the West Coast. Protect remaining habitat in the Fynbos Biome from agricultural transformation Reduce mortality from powerline and wind turbine collisions. Quantify wind turbine collision mortality and its effect on population trends. Study movements and spatial ecology in relation to threats. Identify and address key knowledge gaps.
Northern Black Bustard	Unknown	Unknown	N/A	N/A	Protected within PAs	Resident	Unknown	Kgalagadi Transfrontier Park and other PAs	M: Collision (Overhead cabling) L: Habitat loss and fragmentation (Agricultural transformation, Mining, Solar energy) U: Anthropogenic disturbance; Poaching	Identify and address key knowledge gaps.
Black-bellied Bustard	Unknown	Unknown	N/A	N/A	Unknown	Likely resident	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.

References:

Low, C. 2009. Birds in the life of KhoeSan; With Particular Reference to Healing and Ostriches. *Alternation* 16(2): 64–90.

COUNTRY: Zambia

Species	Population Size	Population trend	National Red List status	Regional Red List status	National Protection Status	Presence in Country	Months of presence	Key sites	Key Threats	Priority Actions
Kori Bustard	Unknown	Slight increase (1997–2012)	N/A	N/A	Unknown	Unknown	Apr-Nov	Range expansion in Zambia; Zambian side of Zambezi between Simungoma Plain and Kazungula; Tongabezi Area and Livingstone	Unknown	Identify and address key knowledge gaps.
Denham’s Bustard	400 ind.	Unknown	N/A	N/A	Unknown	Resident	Year-round	Sumbu NP, Tondwa Game MA, E to Kafue Flats, Nyika Plateau; Possibly in Bangweulu and Sumbu area	Unknown	Identify and address key knowledge gaps.
White-bellied Bustard	Unknown	Unknown	N/A	N/A	Unknown	Resident	Unknown	From Kakoma area S in the Zambezi drainage to Masese (but commonly W of the river)	Unknown	Identify and address key knowledge gaps.
Red-crested Bustard	Unknown	Unknown	N/A	N/A	Unknown	Resident, Partial migrant	Unknown	Kalahari Sand-Woodlands; Zambezi Valley to near Chavuma; E of the river to the Loma area; Rarely along Zambezi as far as Livingstone	Unknown	Identify and address key knowledge gaps.
Black-bellied Bustard	Unknown	Unknown	N/A	N/A	Unknown	Likely resident	Year-round	Throughout Zambia	Unknown	Identify and address key knowledge gaps.

References:

Dowsett, R.J., Aspinwall, D.R., Dowsett-Lemaire, F. 2008. *The Birds of Zambia*. Tauraco Press and Aves a.s.b.l. Liège, Belgium. pp. 174–177.

COUNTRY: Zimbabwe

Species	Population Size	Population trend	National Red List status	Regional Red List status	National Protection Status	Presence in Country	Months of presence	Key sites	Key Threats	Priority Actions
Kori Bustard	Unknown	Declining (1980–1990)	N/A	N/A	Unknown	Unknown	Unknown	Tuli Circle	Unknown	Identify and address key knowledge gaps.
Denham’s Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Red-crested Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Northern Black Bustard	Unknown	Unknown	N/A	N/A	Unknown	Unknown	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.
Black-bellied Bustard	Unknown	Unknown	N/A	N/A	Unknown	Likely resident	Unknown	Unknown	Unknown	Identify and address key knowledge gaps.

References:

Dale, J. 1990. The kori bustard in central Zimbabwe. *Honeyguide* 36: 123–128