NATIONAL ACTION PLAN FOR THE CONSERVATION OF CHEETAH AND AFRICAN WILD DOG IN ETHIOPIA

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Ethiopian Wildlife Conservation Authority

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Preface

It is with great satisfaction that I hereby endorse the Cheetah and Wild Dog Conservation Action Plan on behalf of the Ethiopian Wildlife Conservation Authority. The recommendations and policy directions described in this plan will be guiding our work for the coming five years, because we believe that they represent best practice and will promote persistence of the cheetah and wild dog in Ethiopia.

The cheetah and wild dog are emblematic species for Ethiopia. Our wildlife assemblage would not be complete without them; indeed our biodiversity would not be complete without these flagship species. Of course this comes at a cost: we must mitigate conflict with farmers and maintain wild landscapes with sufficient prey base.

We acknowledge the assistance of national and international partners in organising the workshop that created consensus on the issues and in drafting the Cheetah and Wild Dog Conservation Action Plan. We count on the collaboration of those partners, and other stakeholders, in the implementation of this plan.

Signed in Addis Ababa, 12 March 2012.

Dr. Kifle Argaw

Director General

Ethiopian Wildlife Conservation Authority

NATIONAL ACTION PLAN FOR THE CONSERVATION OF CHEETAH AND AFRICAN WILD DOG IN ETHIOPIA

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– CHAPTER 1 –

SUMMARY

The African wild dog (*Lycaon pictus*) and the cheetah (*Acinonyx jubatus*) present major challenges for conservationists in the 21st Century. All large carnivores need large areas to survive; yet wild dogs and cheetahs range more widely, and hence need larger areas, than almost any other terrestrial carnivore species anywhere in the world. As human populations encroach on Africa's last wild areas, these two globally threatened species are often the first to disappear. Ethiopia supports populations of both cheetahs and wild dogs, but the challenge to their conservation remains lack of knowledge about their numbers and distribution. The urgent need for this action plan is underscored by the high human population density (national average approx. 71 people per sq. Km) in Ethiopia and consequent loss of wildlife habitat to agriculture and other human activities. There is rapid expansion of land under agriculture and construction in Ethiopia, so connectivity between cheetah and wild dog habitats in Ethiopia needs to be considered by the authorities planning these developments. The conservation of these species is being planned together because of the wide overlap in their conservation needs, particularly in the area of spatial ecology.

This national action plan for their conservation is the first step in a programme to manage and conserve Ethiopia's large carnivore species, with other plans for the other species to follow. A number of Ethiopia's important wild dog and cheetah populations straddle international boundaries, particularly the borders with Kenya and southern Sudan. Transboundary management in collaboration with Kenya and South Sudan will therefore be required for long term conservation of both species in Ethiopia. The Ethiopian Wildlife Conservation Authority (EWCA) is the appropriate authority to oversee the implementation of this action plan, in partnership with a number of NGOs.

– CHAPTER 2 –

INTRODUCTION

2.1 Background

The African wild dog *(Lycaon pictus)* and the cheetah *(Acinonyx jubatus)* present major challenges for conservationists in the 21st Century. Both species were formerly widely distributed in Africa, but both have experienced dramatic reductions in numbers and geographic range in recent decades (Ray, Hunter &Zigouris, 2005). All large carnivores need large areas to survive; yet wild dogs and cheetahs range more widely, and hence need larger areas, than almost any other terrestrial carnivore species anywhere in the world. As human populations encroach on Africa's last wild savannas, wild dogs and cheetahs – particularly susceptible to the destruction and fragmentation of habitat – are often the first species to disappear. Despite their globally threatened status (wild dogs are listed as endangered and cheetahs as vulnerable (IUCN, 2006a)), their ecological importance as top carnivores (Woodroffe & Ginsberg, 2005b), and their value to Africa's tourism industry (Lindsey et al., 2007), to date remarkably little conservation action has been implemented for these two species. The majority of Africa's protected areas are too small to conserve viable populations, and active conservation efforts on unprotected lands have hitherto been restricted to a handful of projects. Three factors have hindered conservation activity for cheetahs and wild dogs:

(1) The species' massive area requirements mean that conservation planning is needed on a daunting spatial scale, rarely seen before in terrestrial conservation.

(2) Information is lacking on the species' distribution and status, and on the tools most likely to achieve effective conservation.

(3) Capacity to conserve these species is lacking in most African countries; expertise in managing more high-profile species such as elephants and rhinos may not be transferable to wild dogs or cheetahs because the threats and conservation challenges are likely to be different. Against this background, conservation issues associated with wild dogs and cheetahs are being addressed together because, despite being taxonomically quite different, the two species are ecologically very similar and hence face very similar threats.

2.2 Planning large carnivore conservation in Ethiopia

The national action plan for cheetah and wild dog conservation in Ethiopia is the first of a suite of strategic plans for the conservation and management of the country's flagsip species. A conservation action plan for Lion is currently under development. These strategies are being developed within a common framework and together, are intended to achieve:

(i) numerically viable and ecologically functional populations of all large carnivore species native to Ethiopia;

(ii) numerically viable and ecologically functional populations of key wild prey species within Ethiopia; and

(iii) a reduction of human-carnivore conflict in Ethiopia, and

(iv) a reduction of illegal capture and smuggling of live animals across Ethiopia's international boundaries

2.3 National planning within a rangewide context

This national action plan for the conservation of cheetahs and wild dogs in Ethiopia was developed as part of a Rangewide Conservation Planning Process for these two species. Recognising the serious conservation issues facing cheetahs and wild dogs, in 2006 the Cat and Canid Specialist Groups of the IUCN/SSC, in partnership with the Wildlife Conservation Society (WCS) and the Zoological Society

of London (ZSL) initiated a process to plan for the species' conservation across their combined geographic range. This process, conducted in close partnership with government conservation authorities, aims to develop a coordinated array of national conservation action plans for all range states, nested within broader regional strategies.
The Rangewide Conservation Planning Process has six stated objectives:
(1) To foster appreciation for the need to conserve wild dogs and cheetahs, particularly among conservation practitioners in range states.
(2) To collate information on wild dog and cheetah distribution and abundance on an ongoing basis, in order to direct conservation efforts and to evaluate the success or failure of these efforts in future years.
(3) To identify key sites for the conservation of wild dogs and cheetahs, including corridors connecting important conservation areas.
(4) To prepare specific global, regional and national conservation action plans for both cheetahs and wild dogs.
(5) To encourage policymakers to incorporate wild dogs' and cheetahs' conservation requirements into land use planning at both national and regional scales.
(6) To develop local capacity to conserve cheetahs and wild dogs by sharing knowledge on effective tools for planning and implementing conservation action.
(7) To foster collaborative management and conservation of these species amongst range states, particularly in the case of transboundary populations.

A key component of this process is a series of workshops, bringing together specialists on the species' biology with conservation managers from governmental and non-governmental conservation organizations. Close involvement of government representatives was considered absolutely critical since these are the organizations with the authority to implement any recommendations at the management and policy levels. While the process will eventually cover the entire geographic range of both species, the large number of range states involved means that productive discussion and interchange would be very difficult to achieve at a single workshop covering all regions. Workshops are therefore being conducted at the regional level, covering eastern, southern, and west-central Africa for cheetahs and wild dogs together, and North Africa and Asia for cheetahs only (wild dogs being absent from this last region). Although the species' extensive area requirements demand conservation planning on a very large spatial scale, wildlife conservation policy is formulated, authorized and enforced at the national level. It is critical, therefore, that conservation planning be enacted at this level, and national workshops were considered a vital component of the rangewide process. Each regional workshop is therefore being followed immediately by a national workshop in the host country. Hence, the eastern Africa regional workshop was followed by a Kenya national workshop, southern Sudan national workshop, and the recently concluded Ethiopia national workshop. As well as providing an opportunity to develop a national conservation action plan for the two species, this workshop allowed delegates from other countries in the region (Kenyan and Sudanese delegates invited to attend as observers) to contribute on transboundary conservation issues. This process will eventually lead to the development of national action plans for all range states.

2.4 Biology and conservation needs of African wild dogs

African wild dogs are highly social members of the canid family. Packs cooperate to hunt their prey (Creel & Creel, 1995), which consists mainly of medium-sized ungulates. In Ethiopia, particularly gazelles (*Gazella* spp.) but in other habitats, may range in size from hares (*Lepus* spp) and dik diks (*Madoqua* spp, Woodroffe et al., 2007c) to kudu (*Tragelaphus strepsiceros*) and even occasionally, eland (*Taurotragus*

oryx, Van Dyk & Slotow, 2003). Packs also cooperate to breed, with usually only one female and one male being parents of the pups (Girman et al., 1997a), but all pack members contributing to pup care (Malcolm & Marten, 1982). As females have never been observed to raise pups to adulthood without assistance from other pack members, packs, rather than individuals, are often used as the units of measuring wild dog population size. Unlike most carnivore species (other than cheetahs), wild dogs tend to avoid areas of high prey density (Mills & Gorman, 1997), apparently because larger carnivores prefer such areas (Creel & Creel, 1996). This avoidance is also observed in rich wildlife habitats like Kenya's Masai Mara reserve. Lions *(Panthera leo)* and hyaenas *(Crocuta crocuta)* both represent important causes of death for adult and juvenile wild dogs (Woodroffe et al., 2007a). Probably because of this tendency to avoid larger predators, wild dogs live at low population densities and range widely. Population densities average around 2.0 adults and yearlings per 100km2 (Fuller et al., 1992a) and home ranges average 600-800km2 per pack in eastern Africa (Woodroffe & Ginsberg, 1998), with some packs ranging over areas in excess of 2,000km2 (Fuller et al., 1992a). Wild dogs are recorded as having greater needs than cheetahs because the social unit is a pack rather than an individual. Data are from Gittleman & Harvey (1982). Most new wild dog packs form when young animals (often but not always in their second year; McNutt, 1996) leave their natal packs in same-sex dispersal groups, and seek new territories and members of the opposite sex. Such dispersal groups may travel hundreds of kilometres (Fuller et al., 1992b), and have been recorded in areas very remote from resident populations (Fanshawe et al., 1997). This dispersal behaviour can complicate the interpretation of distribution data, as sightings of small groups of wild dogs do not necessarily indicate the presence of a resident population. However, the behaviour does allow wild dogs to recolonize remote areas when opportunities arise. Wild dog populations in different regions of Africa are morphologically and genetically different, but no subspecies are recognised (Girman & Wayne, 1997b; Girman et al., 1993). Wild dogs are habitat generalists, and have been recorded in habitats as diverse as wooded savannah (Creel & Creel, 2002), short grasslands (Kuhme, 1965), montane forest (Dutson & Sillero-Zubiri, 2005), montane moorland (Thesiger, 1970) and mangroves (see Figure 2.1). The first Africa-wide status survey for wild dogs was conducted in 1985-1998 (Frame & Fanshawe, 1990), and this was updated in 1997 (Woodroffe, Ginsberg & Macdonald, 1997b) and 2004 (Woodroffe, McNutt & Mills, 2004). These surveys revealed substantial loss and fragmentation of wild dog populations, with the species extirpated across most of western and central Africa, and greatly depleted in eastern and southern Africa. However distribution data, which were collated mainly by exhaustive postal correspondence, were somewhat biased towards protected areas with little information available from unprotected lands. By 1997, wild dogs had disappeared from most of Africa's protected areas, persisting only in the largest reserves (Woodroffe et al., 1998). In 2004 the species was estimated to number fewer than 6,000 adults and yearlings (Woodroffe et al., 2004). The species is listed as 'endangered' by the IUCN (IUCN, 2006a). Wild dogs' decline has been related to their limited ability to inhabit human-dominated landscapes. Where human densities are high and habitat consequently fragmented, wild dogs encounter hostile farmers and ranchers, snares set to catch wild ungulates, high speed traffic, and domestic dogs harbouring potentially fatal diseases (Woodroffe & Ginsberg, 1997a). While these threats are common among large carnivores, wild dogs' low population densities and wide ranging behaviour mean that they are both more exposed to, and more susceptible to, these human impacts in comparison with most other species (cheetahs being a possible exception). Despite these human impacts on their populations, wild dogs can coexist successfully with people under the right circumstances (Woodroffe et al., 2007c). Wild dogs seldom kill livestock where wild prey remains at even comparatively low densities (Rasmussen, 1999; Woodroffe et al., 2005c), and traditional livestock husbandry is a highly effective deterrent (Woodroffe et al., 2006). Tools have been developed to reduce the impacts of conflicts with game and livestock ranchers, accidental snaring, and road accidents, although safe and effective tools to manage disease risks are still under development (Woodroffe et al., 2005a).

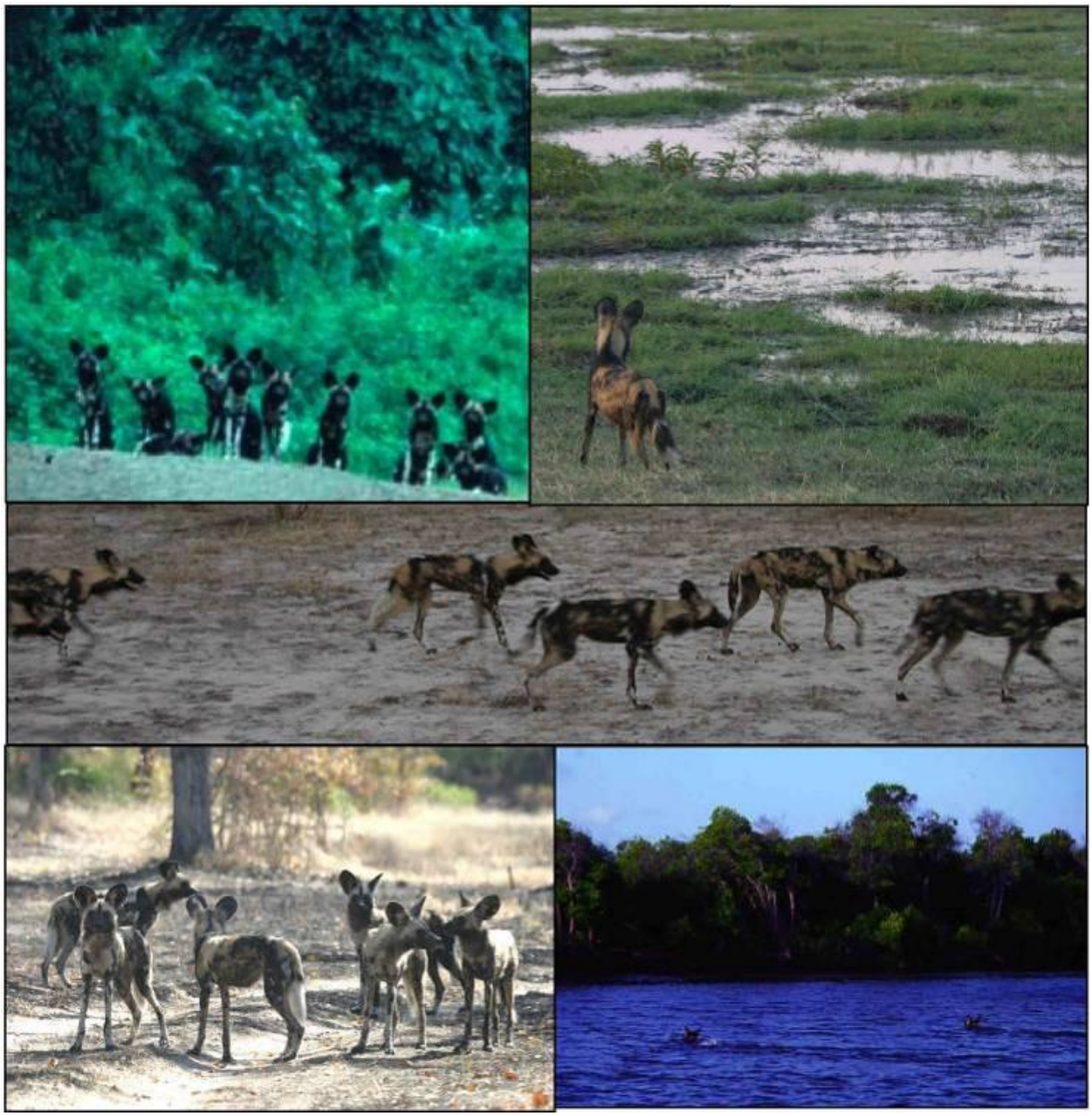


Figure 2.1 Wild dogs live in a wide array of habitats from montane forest (upper left, showing wild dogs in the Harenna forest in Ethiopia) and swamp margins (upper right) to desert (centre), semiarid areas (lower left) and even, occasionally, mangrove forest (lower right, showing wild dogs swimming off the coast of Lamu District in eastern Kenya).

2.5 Biology and conservation needs of cheetahs

The cheetah is one of the most unique and specialised members of the cat family. It can reach speeds of over 100km/hour (Sharp, 1997), making it the fastest creature on land. However, despite their specialised hunting strategy, cheetahs are habitat generalists, ranging across a wide variety of habitats; from desert through grassland savannahs to thick bush (Myers, 1975).Cheetahs have a social system unlike that of any other cat species. Cheetah females are tolerant of other females, and do not maintain territories, having large overlapping home ranges instead (Caro, 1994). Females are highly promiscuous, with high levels of multiple paternity within litters and no evidence of mate fidelity (Gottelli et al., 2007). Cheetah males are often social, forming permanent coalitions of two or three animals, usually brothers, which stay together for life (Caro & Durant, 1991). Males in groups are more likely than single males to take and retain territories, which they then defend against male intruders (Caro & Collins, 1987a).

In the Serengeti ecosystem in northern Tanzania and southwestern Kenya, male territories average 50km2, whilst females and males without territories cover around 800km2 every year (Caro, 1994). This system – where males are social and hold small territories, and females are solitary moving across several male territories annually – is known in no other mammal species (Gottelli et al., 2007). Cheetah females are able to give birth to their first litter at two years, after a three month gestation (Caro, 1994). The cubs are kept in a lair for the first two months of their life, while their mother leaves them to hunt every morning and returns at dusk (Laurenson, 1993). Cheetah cub mortality can be high. In the Serengeti, mortality of cubs from birth to independence was 95% (Laurenson, 1994). There, cubs died mostly because they were killed by lions or hyaenas: mothers cannot defend cubs against these much larger predators (Laurenson, 1994). Cubs may also die from exposure or fire, or from abandonment if their mother is unable to find food. If they survive, the cubs will stay with their mother until they are 18 months old, after which they will roam with their littermates for another six months (Caro, 1994). The greatest recorded longevity in the wild is 14 years for females and 11 years for males; however females have never been recorded as reproducing beyond 12 years (S. Durant unpublished data). Demographic parameters are available for only a small number of populations: mean and variance of birth and survival have only been published from the long term study in the Serengeti National Park, Tanzania (Durant, Kelly & Caro, 2004), whilst mean birth and survival rates are available from ranch lands in Namibia (Marker et al., 2003a). Cheetahs are predominantly diurnal, although hunting at night is not uncommon (Caro, 1994). Cheetahs hunt by a stealthy stalk followed by a fast chase. Because of their unrivalled speed and acceleration, cheetahs can hunt successfully even if they start a chase at a much greater distance than bulkier and heavier large cats, such as lions and leopards (*Panthera pardus*). Cheetahs take a wide variety of prey, depending on habitat and geographic location, but they prefer prey of 15-30kg, the size of a Thomson's gazelle (*Gazella thomsonii*) or impala. Like wild dogs, but unlike most other large carnivore species, cheetahs tend to avoid areas of high prey density, probably because larger carnivore species are found in these areas (Durant, 1998, 2000). Lions have been documented to be largely responsible for the high mortality of cheetah cubs observed in the Serengeti (Laurenson, 1994), and will also kill adults, whilst hyaenas can also kill cubs and will steal kills from cheetahs.

Cheetahs used to be widespread across Africa, and across Asia as far east as India. However, today there are no cheetahs left in Asia except for a small population in Iran, and only a few populations remain in north and west Africa. Most of the remaining cheetah populations are concentrated in sub-Saharan Africa. The first status survey for cheetahs was conducted in the early 1970s (Myers, 1975). Later surveys of selected countries were conducted in the 1980s (Gros, 1996, 1998, 2002; Gros & Rejmanek, 1999), and a summary of current knowledge of global status was collated in 1998 (Marker, 1998). However accurate information on status and densities is extremely difficult to collect for this species, which is shy and rarely seen across most of its range. Furthermore, the ranging patterns of the species incline it to cluster at small "hotspot" localities, making estimating numbers additionally problematic at the broader scale (Durant et al., 2007).

Like wild dogs, and probably because of similar tendencies to avoid larger predators, cheetahs live at low densities with recorded levels ranging between 0.3 and 3 adult cheetahs/100km2 (Burney, 1980; Gros, 1996; Marker, 2002; Mills & Biggs, 1993; Morsbach, 1986; Purchase, 1998). Although markedly higher estimates have been documented in some areas, it is likely that these estimates do not reflect true density, as individuals counted may roam outside the survey area (highlighting a general problem with surveying cheetah populations; see Bashir et al., 2004). Home range size has been found to vary from 50km2 for territorial males in the Serengeti (Caro, 1994) to over 1,000km2 in Namibia (Marker et al., in press). Like wild dog home ranges, cheetah ranges are much larger than would be predicted from their energy needs (Figure 2.1). Because they can traverse such large areas, cheetahs can also disperse long distances, and have been recorded as moving hundreds of kilometres (S. Durant unpublished data). This makes it difficult to determine whether occasional cheetah sightings in an area represent transient individuals or a resident population. However, this ability to disperse enables cheetahs to recolonise new areas fairly easily should they become available. Global population size has been 'guesstimated' at 14,000 (Myers, 1975) and 'less than 15,000' (Marker, 2002). The species is listed as vulnerable according to IUCN red list criteria (IUCN, 2006a). Although the published population size estimates do not suggest a decline, there is a consensus among the world's cheetah experts that such a decline has occurred, either because the 1970's figure was an underestimate, or because the later figure was an overestimate. Certainly the distribution of the species has contracted markedly from its historical range. Declines have been largely attributed to habitat loss and fragmentation (Marker et al., 2003b; Myers, 1975). The disappearance of the species from across nearly its entire Asian range was in part also due to the habit of the Asian aristocracy to capture and use cheetahs for hunting (Divyabhanusinh, 1995). Today, lethal control, due to perceived or actual conflict with livestock or game ranching, also plays an important role in the decline of the species in sub-Saharan Africa (Marker et al., 2003b; Myers, 1975).

2.6 The eastern Africa regional workshop

Figure 2.2 Delegates to the conservation planning workshop for African wild dogs and cheetahs in eastern Africa, held at Mpala Research Centre, Kenya in February 2007.

The eastern Africa regional workshop on conservation planning for cheetahs and wild dogs was held on 1st-6th February, 2007, at Mpala Research Centre in Kenya. It was attended by 28 delegates including government and NGO representatives from southern Sudan, Ethiopia, Uganda, Kenya and Tanzania, and species specialists from Botswana, Namibia, Kenya, Tanzania, USA and UK (Figure 2.2). Data were also contributed by a participant from northern Sudan. The eastern Africa workshop had two principle objectives: to collate information on wild dog and cheetah status and distribution within the region, in a format that could be used to inform conservation planning, and to prepare a regional strategic plan for

the species' conservation. The strategic plan was designed to form a template which could be used, with fairly minor modifications,
to develop national action plans for the species' conservation. Details of the workshop agenda, methodology, and outcomes are published separately (IUCN/SSC, in prep).

2.7 The Ethiopia National Workshop

The Ethiopia national workshop on conservation planning for cheetah, wild dogs and other large carnivores was held from the 8th to 10th of November 2010 at Ghion Hotel, Addis Ababa. It was attended by 44 participants including Ethiopian Wildlife Conservation Authority (EWCA) staff, representatives of conservation NGOs and regional conservation officers (from within Ethiopia). The full list of participants is given in Appendix 1.

Figure 2.3 Delegates to the conservation planning workshop for cheetahs and African wild dogs in Ethiopia, held at Ghion Hotel, Addis Ababa November 2010.

2.8 Structure of this report

Chapters 3 and 4 of this report present details of the status and distribution of cheetahs and wild dogs, respectively, in Ethiopia and neighbouring areas of eastern Africa (particularly South Sudan and Kenya). Chapter 5 describes the threats to both species. The data presented in these chapters were collated in the course of the regional workshop and presented to participants in the national workshop for discussion and updating. Chapter 6 describes the development of the national conservation action plan in the course of the national workshop. This national plan was developed by presenting the regional strategy to participants in the national workshop, and seeking their approval to use the regional strategy as a template for the national action plan. When this approach was agreed, national participants modified and expanded the regional strategy, adding details to produce a Ethiopia-specific national action plan. The agenda for the workshop is presented in Appendix 2, and a logical framework table of the national strategic plan is provided in Appendix 3.

– CHAPTER 3 –

THE DISTRIBUTION AND STATUS OF CHEETAHS IN ETHIOPIA

3.1 Historical distribution

In the past, cheetahs were broadly distributed in the lowland plains of southern and eastern Ethiopia. Cheetahs are habitat generalists, able to persist in a wide array of environmental conditions, provided their prey are available, ranging from desert to reasonably thick bush. They were widely distributed in the Awash valley, Ogaden grasslands and the Borana plains in the south, towards the border with Kenya. The highest cheetah densities have been recorded in wooded savannah (Caro,1994; Marker et al., in press). However, the species tends to occur at low densities, partly because it comes into competition with other large carnivores, such as lions and spotted hyaenas (Durant, 1998). Because of this, cheetah densities in pristine wilderness that harbour large numbers of other large carnivores do not differ significantly from densities in relatively degraded habitat with sparse prey and higher human impact. This is because the best habitats attract the highest densities of competing carnivores. It unlikely, therefore, that cheetahs were ever abundant in Ethiopia, despite their widespread distribution. Because of the high altitude of the central highlands, historical distribution of cheetah in Ethiopia was probably determined by geographical features more than anything else.

3.2 Current distribution

Cheetah in Ethiopia are currently widely distributed in the Southern plains of Ethiopia, albeit at low density. The other major cheetah range stretches from the Ogaden grasslands northwards to the Awash and Yangudi National parks. Cheetah are present and have been recorded in 10 of Ethiopia's protected areas namely, Awash NP, Garhaile NP, Churchura NP, Yabello wildlife sanctuary, Mago NP, Mazie NP, Nechisar NP, Senkele Wildlife Sanctuary, Babille Elephant sanctuary, and Omo NP. Important cheetah habitats outside protected areas include the Daua river valley on the Ethiopia-Kenya border, and the Borena region North of Moyale.

The most recent and frequent cheetah sightings have been reported from Yabello wildlife sanctuary, Garhaile National park, Churchura National Park, Mago National Park, Mazie National Park, Nechisar National Park, Omo National Park , and Senkele Wildlife Sancutary.

3.2.1 Sighting information

Delineation of cheetahs' current distribution was informed by maps of recent and historical sighting data given by workshop participants(Figure 3.2). The presence of sighting observations indicate that cheetahs have definitely occurred in a particular area, but does not signify whether there is a resident, breeding population or whether the sightings are of transient individuals. The presence of a cluster of sightings in one area, which are widely distributed across time, is more likely to indicate a resident population. The absence of sighting information in an area can mean one of two things: either there are no cheetahs in the area, or there are cheetahs in the area but they have not been recorded. The latter explanation is likely to be the case in areas where there are few observers.

3.2.2 Categories of current geographical range

Since cheetah distribution within Ethiopia is relatively unknown outside protected areas, the mapping process recognised six categories of current geographical range (Figure 3.3). These categories are more or less identical to those used for wild dogs (see chapter 4).

(1) **Resident range**: land where cheetahs are known to be still resident
(2) **Possible range**: land where cheetahs may still be resident, but where residency has not been confirmed in the last 10 years.
(3) **Connecting range**: land where cheetahs may not be resident, but which dispersing animals may use to move between occupied areas, or to recolonise extirpated range. Such connections might take the form of 'corridors' of continuous habitat or 'stepping stones' of habitat fragments.
(4) **Unknown range**: land where the species' status is currently unknown and cannot be inferred using knowledge of the local status of habitat and prey.

(5) **Extirpated range**: land where the species has been extirpated. This can be further divided into: Unrecoverable range: land where habitat has been so heavily modified (e.g. by cultivation or urbanisation) or fragmented as to be uninhabitable by resident cheetahs for the forseeable future.

(6) **Recoverable range**: land where habitat and prey remain over sufficiently large areas that either natural or assisted recovery of cheetahs might be possible within the next 10 years if reasonable conservation action were to be taken.

Figure 3.4 Map of cheetah distribution and status in Ethiopia (from 2007 Regional Workshop)

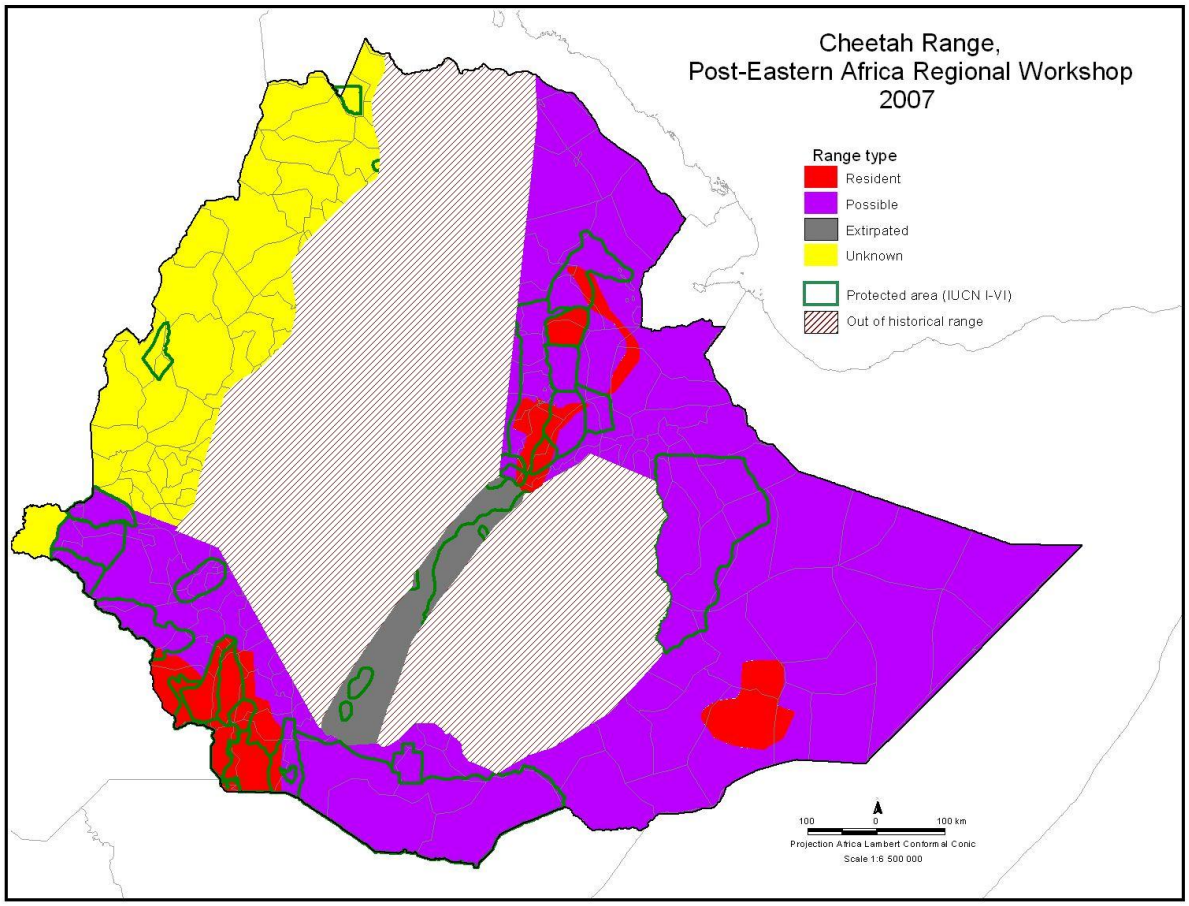
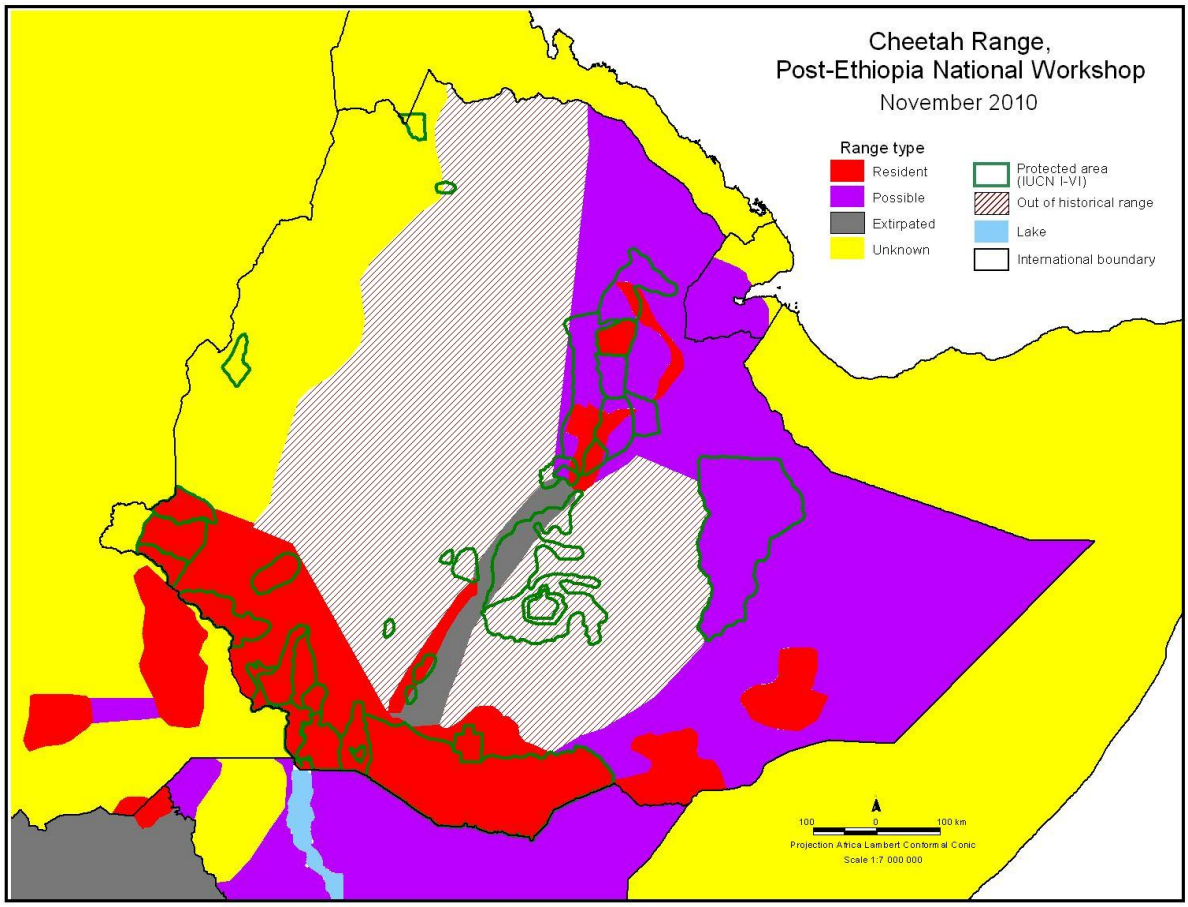


Figure 3.5 Map of Cheetah distribution and ranges in Ethiopia (from 2010 National workshop)



3.2.4 Distribution across protected areas

As is apparent from Figure 3.5, over 50% of cheetahs' current geographical range falls inside Ethiopia parks and reserves (Table 3.3). This highlights the overwhelming importance of conservation activities outside protected areas to safeguard Ethiopia's cheetah population.

Table 3.3 Review and Update of Cheetah Ranges in Ethiopia, November 2010.

	Post East African Regional Workshop		Post Ethiopia National Workshop	
Range Type	**Km^2**		**Km^2**	**% difference**
Extirpated	26291		20818	-20.8
Possible	423259		307795	-27.3
Resident	50288		171224	240.5
Unknown	121833		121832	0.0
Total area	**621671**		**621669**	

3.2.5 Distribution across international boundaries

As shown in Figure 3.4, the majority of Ethiopia's known resident cheetah populations traverse the southern and south-western borders with Kenya and Sudan. If possible range is included, the number of transboundary populations is increased, with populations possibly straddling Ethiopia's borders with Somaliland, Djibouti and Somalia. The importance of these transboundary populations, both for cheetah conservation and for tourism, highlights the need for consider transboundary management of cheetah conservation in some areas.

3.3 Conclusions

As in other parts of Africa, cheetahs in Ethiopia appear to have experienced a marked contraction of their geographic range over the past one or two hundred years. Despite this, resident populations persist, which should be viable in the long term if appropriate conservation measures are enacted. Although cheetahs are economically and ecologically important inside protected areas such as the Awash and Yangudi-Rasa Reserves, the majority of Ethiopia's cheetahs live outside protected areas. Given cheetahs' low population density, the populations inside protected areas are almost certainly dependent on adjoining unprotected lands for their long-term viability in terms of foraging grounds and dispersal corridors. Hence, conservation activities outside reserves are absolutely critical if populations are to be conserved, both inside and outside protected areas, in the long term. Cheetahs' status is uncertain across much of the Ogaden region in eastern Ethiopia: this entire area is considered 'possible range'. This area is important not only because of the large number of cheetahs that it could potentially contain, but also because it is ecologically distinct from areas currently known to be occupied by resident cheetah populations. Surveys of this area are therefore needed. No areas were identified where recovery of extirpated cheetah populations might be considered. Reintroduction is not, therefore, appropriate to conserve cheetahs in Ethiopia in the medium term. This indicates the irreversible nature of the decline in the distribution of cheetahs. Once the habitat is lost, it is very difficult to recover it, demonstrating the importance of ensuring that planning for cheetah conservation be put in place as soon as possible, before habitat is irretrievably fragmented and lost.

– CHAPTER 4 –

THE DISTRIBUTION AND STATUS OF AFRICAN WILD DOGS IN ETHIOPIA

4.1 Historical distribution

Wild dogs are habitat generalists, able to persist in a wide array of environmental conditions as long as prey are available. Although the highest wild dog densities have been recorded in wooded savannah (Creel et al., 2002), populations have been recorded in habitats as diverse as short grasslands (Kuhme, 1965), montane forest (Dutson et al., 2005), and mangroves. Hence, it is likely that wild dog distribution in Ethiopia is largely influenced by human population density and consequent modification of habitats. The species' known ranges from the regional and national workshops are shown in figures 4.1 and 4.2 respectively. Today, wild dogs remain uncommon even in essentially pristine wilderness, apparently due to negative interactions with larger carnivores (Creel et al., 1996; Mills et al., 1997). Hence, despite their formerly broad geographical distribution, wild dogs were probably never abundant in Ethiopia.

4.2 Current Distribution

4.2.2 Categories of current geographical range

Since wild dogs' distribution is imperfectly known across the region, the mapping process recognised six categories of current geographical range (Figure 4.4). The same categories were used to classify cheetah geographical range.

(1) **Resident range:** land where wild dogs are known to be still resident.

(2) **Possible range**: land where wild dogs may still be resident, but where residency has not been confirmed in the last 10 years.

Extirpated range: land where the species has been extirpated. This can be further divided into:

(3) **Unrecoverable range**: land where habitat has been so heavily modified (e.g. by cultivation or urbanisation) or fragmented as to be uninhabitable by resident wild dogs for the forseeable future.

(4) **Recoverable range**: land where habitat and prey remain over sufficiently large areas that either natural or assisted recovery of wild dogs might be possible within the next 10 years if reasonable conservation action were to be taken.

(5) **Connecting range**: land where wild dogs may not be resident, but which dispersing animals may use to move between occupied areas, or to recolonize extirpated range. Such connections might take the form of 'corridors' of continuous habitat or 'stepping stones' of habitat fragments.

(6) **Unknown range**: land where the species' status is currently unknown and cannot be inferred using knowledge of the local status of habitat and prey.

4.2.3 Current distribution across different range categories

Figure 4.1 shows the areas of wild dogs' historical geographic range judged in 2007, to fall into these six categories; Table 4.1 presents the same data in a quantitative format. Four resident populations are recognized in Ethiopia. However, as these populations are separated by areas of 'unknown' range, it is conceivable that some of them might be connected to one another, particularly those in the Omo and Churchura regions.

Figure 4.1 –Map of Wild dog distribution and ranges in Ethiopia (post 2007 regional workshop).

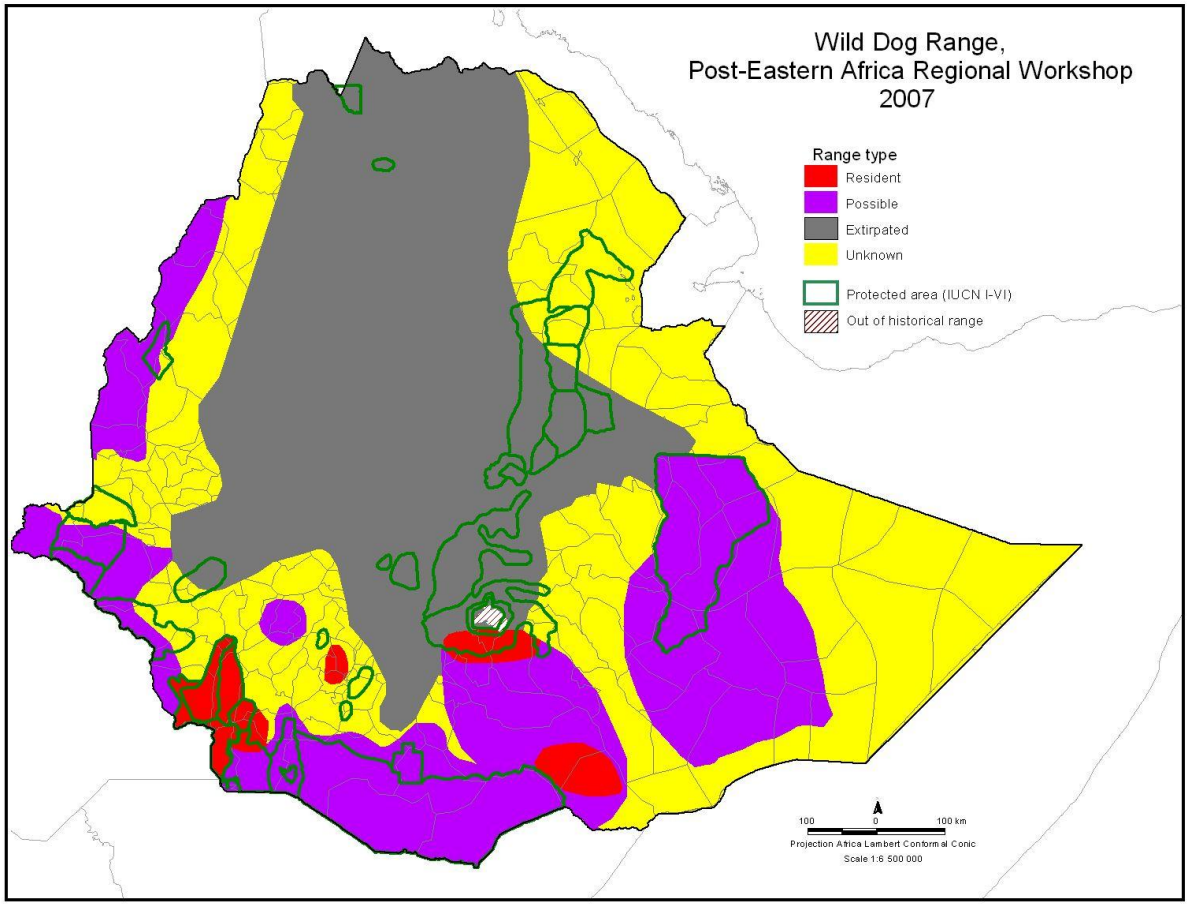
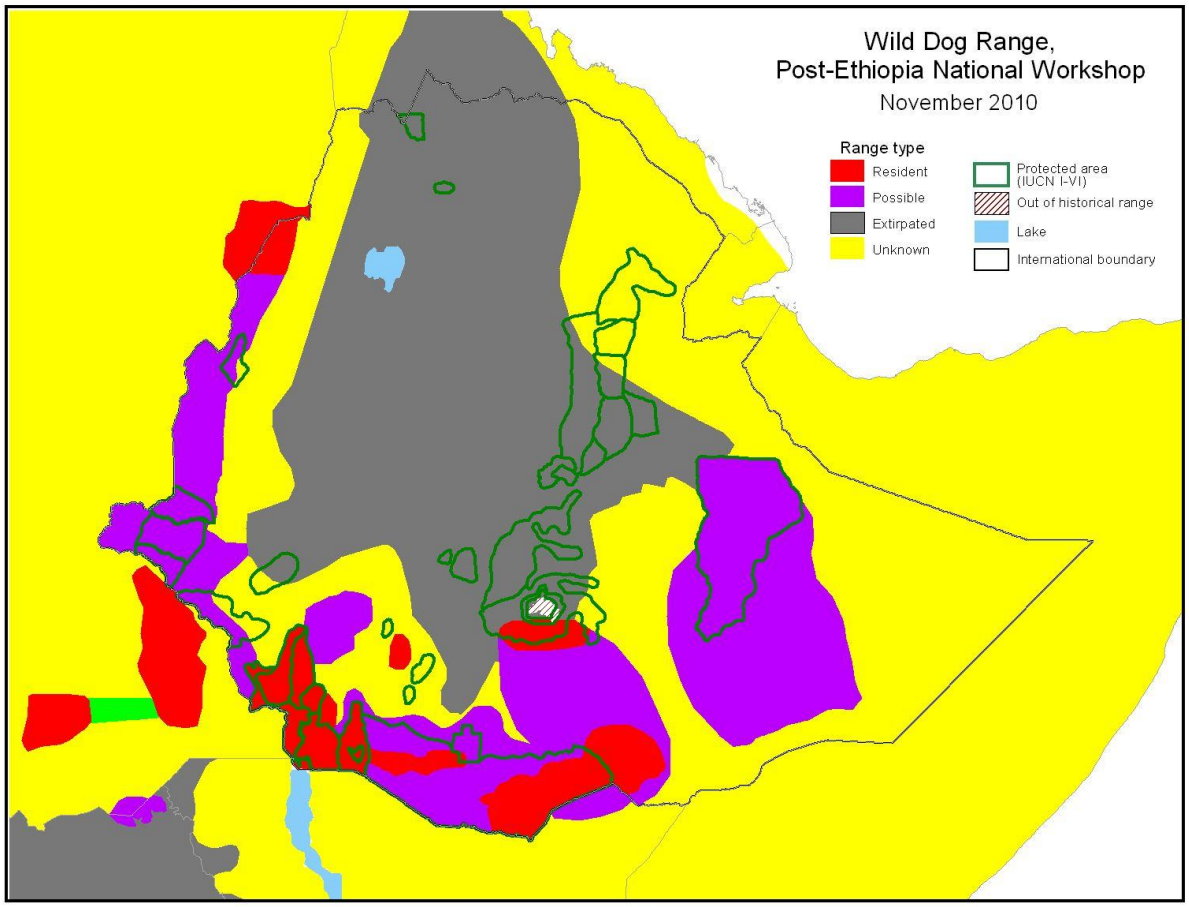


Table 4.1 Status of African wild dogs in Ethiopia

	Post East African Regional Workshop		Post Ethiopia National Workshop	
WILD DOG				
Range Type	**Km^2**		**Km^2**	**% Change**
Extirpated	373635		373635	0.0
Possible	238883		220778	-7.6
Resident	28391		60388	112.7
Unknown	368480		354589	-3.8
	1009389		1009390	

Figure 4.1 –Map of Wild Dogs' distribution and ranges in Ethiopia (post 2010 national workshop).



4.2.3 Distribution across protected areas

Approximately 45% of wild dogs' current geographical range in Ethiopia appears to lie within protected areas according to the latest range map. However, this may be a factor of survey effort rather than presence or absence of wild dogs. According to the 2010 map, however, areas designated as 'unknown' indicate that the habitats between protected areas are equally important.

4.2.4 Distribution across international boundaries

As shown in Figure 4.1, several important areas for wild dog conservation traverse international boundaries. These include those in Alatish, Omo, Mago, and Garhaile National Parks on the borders with Sudan and Kenya respectively. The size of these transboundary populations highlights the need to consider transboundary management of Ethiopia's wild dog populations. This need is specifically addressed under objective 5 in this national action plan. It was also the reason for the participation of delegates from the South Sudan Wildlife Service and the Kenya wildlife Service.

4.3 Conclusions

As in other parts of Africa, wild dogs in Ethiopia have experienced a substantial contraction of their geographic range over the past one or two hundred years. This is probably as a result of expanding human settlement and agriculture. Most remaining resident populations rely on unprotected, as well as protected, lands for their survival: Around half of known resident range falls outside protected areas. This highlights the need for conservation efforts outside parks and reserves. Given wild dogs' vulnerability to extinction inside reserves (Woodroffe et al., 1998), conserving such populations is likely to require transboundary cooperation, particularly with Kenya and South Sudan. There is a large knowledge gap in Ethiopia as concerns the extent of wild dog ranges and abundance of the species. Surveys would have to be done in order to identify recoverable range.

- CHAPTER 5 –

THREATS TO WILD DOG AND CHEETAH POPULATIONS IN EHIOPIA

5.1 Introduction

An evaluation of threats to wild dog and cheetah populations is a crucial component of strategic planning for the species' conservation. Understanding the nature of these threats is critical to identifying measures likely to mitigate those threats and hence to achieving conservation objectives. Global threats to wild dog and cheetah populations have been assessed previously (Bartels et al., 2001, 2002; Marker, 1998; Woodroffe et al., 2007a; Woodroffe et al., 1997a; Woodroffe et al., 2004). However, one conclusion of these assessments is that threats vary between regions. For the purposes of conservation planning within Ethiopia, we therefore used data on threats to Ethiopian wild dog and cheetah populations, contributed by participants in the regional workshop, and reviewed by participants in the national workshop. The threats identified were almost identical for the two species, and they are discussed together.

5.2 Proximate threats

5.2.1 Habitat loss and fragmentation (both species)

Loss and fragmentation of habitat together represent the over-arching threat to both cheetah and wild dog populations, which contributes to several of the other proximate threats listed below. This was identified as a threat to all the wild dog and cheetah populations resident in Ethiopia. Because both species live at such low population densities and range so widely, they require much larger areas of land than do other carnivore species, and are correspondingly more sensitive to habitat loss occasioned by Ethiopia high and growing human population. Conserving each viable population is likely to require land areas far in excess of 10,000km2. Fortunately, both species have the ability to survive and breed in human dominated landscapes under the right circumstances; hence such large areas may be protected, unprotected, or a mosaic of the two. Both species also have excellent dispersal abilities, making it comparatively easy to maintain gene flow between populations, and to encourage recolonisation of suitable unoccupied habitat by conserving connecting habitat.

5.2.2 Conflict with livestock farmers (both species)

Both cheetahs and wild dogs are threatened by conflict with livestock farmers in parts of their geographic range. In Ethiopia, such conflict was identified as a threat to all resident populations of wild dogs and cheetahs. While both species tend to prefer wild prey over livestock, both may kill livestock under some circumstances and are therefore killed by farmers. Such conflict mostly involves pastoralist communities. As neither species regularly scavenges, they are less susceptible to poisoning than are other carnivores such as hyaenas and leopards, but may be shot or speared.

5.2.3 Prey loss (both species)

Both cheetahs and wild dogs are highly efficient hunters, able to survive in areas of comparatively low prey density. Nevertheless, loss of prey from some areas, due to hunting, high livestock densities, or habitat conversion, may directly impact cheetah and wild dog populations, essentially as a component of habitat loss. Prey loss can also have serious indirect effects, since predation on livestock may become more frequent where wild prey are depleted (Woodroffe et al., 2005c), intensifying conflict with livestock farmers. Prey loss was identified as a potential threat to all of the wild dog and cheetah populations resident in Ethiopia.

5.2.4 Poorly managed tourism (both species)

Unregulated tourism has the capacity to threaten both cheetahs and wild dogs. In cheetahs, negative effects of tourism mainly involve interference with hunting, scaring cheetahs away from kills to which

they are unlikely to return, and separation of mothers from cubs, due to the presence of large numbers of tourist vehicles. This is not a particularly serious problem in Ethiopia at present, but should be managed to prevent occurrence in the future. However, well-regulated tourism can make substantial contributions to wild dog and cheetah conservation, both through the revenue it generates for conservation, and by raising awareness.

5.2.7 Infectious disease (mainly wild dogs)

Infectious disease can have major impacts on wild dog populations. Rabies contributed to the extinction of the wild dog population in the Serengeti-Mara ecosystem in 1991 (Gascoyne et al., 1993; Kat et al., 1995), and canine distemper decimated a captive population held in Mkomazi National Reserve in Tanzania (van de Bildt et al., 2002), illustrating the capacity of both viruses to provoke major population crashes. Both viruses are maintained within populations of domestic dogs; hence disease risks are likely to be particularly high for wild dogs living outside protected areas. Although cheetahs are occasionally affected by infectious disease, notably mange (Caro et al., 1987b), disease is not known to threaten free ranging cheetah populations.

5.2.8 Smuggling and Live trade (mainly cheetahs)

The illegal trade in cheetah cubs to the Middle East has been reported in Ethiopia and is also known to occur in Somalia, Somaliland and Northern Kenya. The increasing demand and high prices offered for cheetah cubs in the Middle East continues to pose a threat to cheetah populations in Ethiopia and the wider horn of Africa region.

5.3 Challenges to cheetah and wild dog conservation

Conserving cheetah and wild dog populations requires mitigating the threats listed above, on a very large spatial scale. Participants in the regional workshop therefore identified the barriers to achieving this outcome. These constraints were classified into four categories: political, economic, social and biological. Once again, results for cheetahs and wild dogs were extremely similar. Political constraints included lack of land use planning, insecurity in some ecologically important areas, and lack of political will to foster cheetah and wild dog conservation. Economic constraints included lack of financial resources to support conservation, and lack of incentives for local people to conserve wildlife. Social constraints included negative perceptions of wild dogs and cheetahs, lack of capacity to achieve conservation, lack of environmental awareness, rising human populations, and social changes leading to subdivision of land and consequent habitat fragmentation. These potentially mutable human constraints contrast with several biological constraints which are characteristic of wild dogs and cheetahs and cannot be changed: these included the species' wide ranging behaviour, their negative interactions with other large carnivores, and their susceptibility to infectious disease.

5.4 Conclusions

Data indicate that both the proximate and ultimate threats faced by cheetahs and wild dogs are very similar. Indeed, these threats are similar to those faced by all large carnivores in Africa; however wild dogs' and cheetahs' extremely wide-ranging behaviour makes them acutely sensitive to these threats and means that the threats need to be addressed over extremely large areas. The similarity in threats faced by the two species also means that, with very few exceptions, conservation activities implemented for either species are likely to benefit both. For this reason, participants in the process decided to formulate a single conservation strategy for the two species, rather than one for each species. National

– CHAPTER 6 –

ACTION PLAN FOR CHEETAH AND WILD DOG CONSERVATION IN ETHIOPIA

6.1 Background

The strategic plan for wild dog and cheetah conservation in Ethiopia was developed using a process which was deliberately participatory and consensus driven, involving as many stakeholders as was practicable. This approach was taken both to ensure that the expertise and knowledge of all participants informed the plan, and also to ensure that the plan would be jointly owned by relevant institutions and individuals, facilitating its implementation. As described in Chapter 2, the national strategy for wild dog and cheetah conservation in Ethiopia was developed within a broader regional context. A strategic plan for the species' conservation in eastern Africa was developed first, by a team of participants from across the region, including representatives of governmental authorities, relevant NGOs, and species specialists. From Ethiopia, this regional workshop involved high-level participants from EWCA, Frankfurt Zoological Society and the Ethiopian Wolf Conservation Program.

Following strategic plans established for other species in Africa (IUCN, 2005, 2006b), the Ethiopia national plan had five key components:
(1) A long-term vision for the species' conservation
(2) A medium-term goal for the strategic plan
(3) A number of objectives which together address the proximate and ultimate threats to the species' conservation
(4) Several targets to address each objective
(5) A list of of activities to address each target

6.2.1 The Vision

A long term vision was developed to form the guiding purpose for the strategic plan over the next 25-50 years. It was intended reflect an optimistic, but realistic, view of the future of cheetah and wild dog conservation and should provide a useful guideline to direct conservation actions

6.2 Structure of the strategic plan

The vision developed for the regional strategy was "To secure viable and ecologically functional cheetah and wild dog populations as valued components of development in Eastern Africa". This vision was carefully worded to reflect:
(i) the need to conserve viable populations, that is, relatively large populations which are able to persist in the long term;
(ii) the need to conserve ecologically functional populations, that is, populations exposed to as full a range as possible of ecological challenges to which they would have been subjected in their evolutionary history, including their natural predators, parasites and prey, across a range of natural ecosystems;
(iii) the need to conserve the species as valued components of development, that is, within a context of human development which acknowledges the economic, cultural and ecological value provided by cheetahs and wild dogs.
This vision was accepted by participants in the Ethiopia national workshop. In particular, it was noted that, within Ethiopia, this view of wild dogs and cheetahs as 'valued components of development' incorporates reduction in conflict between people and wildlife, and promotion of economic benefits from wildlife, in a sustainable manner. Tourism is a key component of such development.
The vision of the national strategy is therefore:

Vision:
To secure viable and ecologically functional cheetah and wild dog populations as valued components of development in Ethiopia

6.2.2 The Goal

The goal was intended to reflect what the strategic plan should accomplish in a shorter time period than that identified for the vision – around 10-20 years. The goal should thus be realistic and achievable. It should also be broadly measurable, in that it should be possible to know when it has been achieved. The goal therefore needs to be more clearly defined than the vision, although it should support the vision statement. The goal agreed for the eastern Africa regional strategy was "To reverse declines and improve the status of cheetah and wild dog populations and their habitats across eastern Africa". Participants in the Ethiopia national workshop agreed with this goal. They noted that, within Ethiopia, improving the "status" of these two species refers not only to their biological status (e.g. numbers, distribution) but also to the state of knowledge about the 2 species in Ethiopia, which is critical to their conservation.
The goal of the national strategy is therefore:

Goal:
To reverse declines and improve the status of cheetah and wild dog populations and their habitats across Ethiopia

6.2.3 Regional Objectives

The problem analysis described in section 5.4 was used to develop objectives for the eastern Africa strategic plan. The proximate and ultimate threats to the species' persistence, and constraints on the species' conservation, were grouped into six themes:
(1) Coexistence: This theme covers problems relating to the coexistence of people and domestic animals with cheetahs, wild dogs and their prey.
(2) Surveys and information: This theme concerns problems arising from a lack of information about cheetahs and wild dogs including information on range, population status, habitat and management.
(3) Capacity development: This theme includes problems arising from insufficient capacity such as manpower, resources, training and equipment.
(4) Land use planning: This theme covers problems arising from a lack of or inappropriate policies and legal frameworks within the wildlife sector.
(5) Advocacy: This theme comprises problems arising from a low public importance attached to cheetah and wild dog conservation. This category largely addresses policy and legislation issues outside the remit of the group, i.e. outside the remit of the government wildlife sectors, and hence falling under other ministries. This includes critically important issues such as land use policy and development.
(6) National planning: This theme addresses problems arising from a lack of national strategies for cheetah and wild dog conservation. This was a relatively small, but nonetheless important, category which covered the translation of the regional strategy into national action plans and subsequent implementation at the national level.
These themes were used to develop objectives for the regional strategy, ensuring that all issues identified in the problem analysis were addressed by the objectives, and that no objective addressed issues not identified by the problem analysis. All of the objectives developed for the regional strategy were adopted for Ethiopia's national action plan, with the exception of the last, which deals with national planning. This was fulfilled by development of the Ethiopia national plan at the workshop held in Addis Ababa. Hence, the objectives of the Ethiopia national action plan were:

Objective1: On one hand, develop and implement strategies to promote coexistence and on the other hand, manage conflict between people and cheetah and wild dogs in Ethiopia.
Objective 2: Improve knowledge on cheetah and wild dog populations and provide relevant stakeholders and managers with scientific and timely information.
Objective 3: Strengthen capacity to conserve cheetah and wild dogs
Objective 4: Mainstream cheetah and wild dog conservation in land use planning and its implementation
Objective 5: Encourage networking and collaboration within the country and with neighbouring countries in cheetah and wild dog conservation.

Under Objective 1, the delgates noted that within Ethiopia, the "people" with whom cheetahs and wild dogs must coexist are not only local communities but also private landowners, local authorities, and other users of lands which support wildlife.
Under Objective 2, the delegates noted the direct translation of this regional issue to the Ethiopian situation, where there is a widely-recognized and urgent need for better information on cheetah and wild dog distribution and status.
Under Objective 3, the delegates noted that there was an urgent need for capacity building at the federal and regional levels for cheetah and wild dog conservation. This would provide an avenue to utilize the information collected under objective 2.
Under Objective 4, the delegates noted the need to incorporate cheetah and wild dog conservation into any federal and regional land use plans developed in Ethiopia.
Under Objective 5, participants noted that transboundary management is very important to conserve these two species because the significant wild dog ranges were transboundary, and there is an urgent need to curb the smuggling of cheetah cubs to the Middle East.
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6.2.4 Targets, activities, timelines, actors and indicators

Once the objectives were agreed, targets were developed to meet the objectives. Each objective was associated with a number of targets, each of which specified a way in which progress would be made towards achieving the objective, and on what time scale. Targets were devised to ensure that if all targets under an objective were met, then that objective would be met. The targets set for the Ethiopia national action plan were in turn, associated with a number of activities. Activities are highly specific and describe exactly what projects need to be completed to achieve the targets and thus, the objectives. Once again, activities for the Ethiopia National Action Plan were modified from those devised for the regional strategy. Additionally, for each activity within the national strategy, a timeline was set, and the institutions best placed to perform the activity (actors) were specified.

– CHAPTER 7 –

IMPLEMENTATION OF THE NATIONAL ACTION PLAN

As described in Chapter 2, this national action plan was developed within the context of a workshop that also develops conservation and management plans for Lions in Ethiopia. While cheetahs and wild dogs are unique among African carnivores in their requirement for extremely large areas of contiguous wildlife-friendly habitat, it is clear that many of the activities recommended in this strategic plan will also benefit other species which face similar direct and indirect threats: this includes lions, leopards and hyaenas. These other species can be conserved in areas somewhat smaller than those needed by cheetahs and wild dogs (Woodroffe et al., 1998), but otherwise face similar threats. Hence, cheetahs and wild dogs are likely to act as good 'umbrella species' for planning the conservation of all the large carnivores, as a result of the spatial scale across which conservation activities must be implemented. Implementing this strategy will require a focus on lands outside protected areas, since the majority of wild dog and cheetah range falls on such areas. It would not be possible to conserve viable populations of either species solely within Ethiopia's protected area system: the parks are simply too small to support these wide-ranging species. The majority of Ethiopia's important wild dog and cheetah populations occupy transboundary areas, and long term conservation will depend upon activities occurring not only within Ethiopia, but also in neighbouring countries. The Convention on the Conservation of Migratory Species of Wild Animals (CMS) provides one means for coordinating transboundary management, and this need is expressly addressed in the 5th objective of this national action plan.

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APPENDIX I: WORKSHOP DELEGATES

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4.	Fetene Hailu, Director, W/Utilization	EWCA	
5.	Aklilu Kebede, Senior Wildlife Utilization Expert	EWCA	
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8.	Rezenom Almaw, Zonal Coordinator	EWCA	
9.	Zeleke Tigabe, Zonal Coordinato	EWCA	
10.	Lakew Berhanu, Coordinator	SDPASE (GEF)	
11.	Ludwig Siege, Technical Advisor	SDPASE (GEF)	
12.	Tibebe Yelemfirhat, warden	EWCA	
13.	Kedir Mohammed, warden	EWCA	
14.	Wodwossen Sisay, Warden	EWCA	
15.	GatluakGatloth Warden	EWCA	
16.	Adisu Assefa Warden	EWCA	
17.	Abiot Hailu Warden	EWCA	
18.	Awel Ali, Warden	EWCA	
19.	Adem Mohammed, Warden	EWCA	
20.	Mamo Alemu, Warden	EWCA	
21.	Wubshet Zenebe, Warden	EWCA	
22.	GatluakGatloth, Warden	EWCA	
23.	Asmare Goshu, Warden	EWCA	
24	Maru Biyadiglign, Warden	EWCA	
25	Hailay G/egiabher	EWCA	
26.	Alemayehu Matewos, warden	EWCA	
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41.	Mr. Berhanu Gebre	Amhara Parks	

APPENDIX 2: AGENDA FOR THE NATIONAL WORKSHOP

Ethiopian Large Carnivores Conservation Workshop

Proposed agenda:

First day

Introduction

08:30: Official welcome
08:45: Introductions
09:00: Background to the regional planning process and the importance of the national planning workshop (Regional coordinator)
09:15 The status, distribution of cheetahs and wild dogs in the East African region and main threats to survival (Mordecai)

Reports from EWCA and non-governmental organizations carrying out research into wild dogs and cheetahs or projects than impact on the two species:
-Kahsay G. (Report on Carnivore distribution and conservation needs in Ethiopia)
-Mat Pines (Report on cheetah in Awash NP)
-Mordecai Ogada (Report on cheetah and Wild Dog survey in June 2010)
We need a few more presentations here, so if we can have some reports from EWCA staff, Claudio, Zelealem?

09:30: 12:00
Revising the relevant range maps for cheetahs and wild dogs by all participants
12:00; Opportunity for all participants to provide new information to revise the range maps for cheetah and wild dogs in the country using the existing range maps as a guide

LUNCH

Developing a national action plan in line with the regional strategy

14:00 : The regional conservation strategy for cheetah and wild dog in East Africa (Regional coordinator)
14:15 Review the vision and goal of the regional strategy and ensure they are relevant to the national strategy
14:45 Review the objectives of the regional strategy, select those relevant to the national strategy and identify additional ones pertinent to Zimbabwe

15:30 TEA

15:45 Determine working groups to review targets under each objective

16:00 Working groups review targets under each objective

17: 00 Working groups present targets in plenary

18:00 End of Day

Second Day

08:30 Working groups are informed of the next stage of the process
08:45 Working groups review and identify new activities under each target
10: 30 TEA and COFFEE Break
11: 00 Working groups present activities in plenary
11: 30 Working groups rank each activity, identify responsible parties, timeframes, impacts, resources required, incentives and indicators for each activity

12:30 LUNCH

14:00 (Continued work from before lunch) Working groups rank each activity, identify responsible parties, timeframes, impacts, resources required, incentives and indicators for each activity
15:30 TEA and COFFEE BREAK
15: 45 Plenary session to present activity tables for each objective
16: 45 Presentation of the logframe of the national action plan

17: 15 END of DAY

APPENDIX 3: NATIONAL STRATEGIC PLAN LOGICAL FRAMEWORK

Vision:
To secure viable and ecologically functional cheetah and wild dog populations as valued components of development in Ethiopia.

Goal:
To reverse declines and improve the status of cheetah and wild dog populations and their habitats in Ethiopia.

THEME: Coexistence				
Objective 1: Develop and implement strategies to promote coexistence and manage conflict between people and cheetah and wild dogs				
Target	Activity	Rank	Responsible party	Time Frame
1.1 Programmes to reduce indiscriminate hunting and illegal offtake of wild ungulate implemented in affected areas within three years	1.1.1 Identify areas where AWD or Cheetah populations are significantly threatened by any illegal activities	FIRST	EWCA, RRG &others	3 years
	1.1.2 Identify areas where prey loss contributes to conflict between livestock farmers and Cheetah or AWD,or directly undermines the viability of AWD or cheetah population.	SECOND	EWCA, RRG& others	3 years
	1.1.3 Implementation of measures to reduce illegal hunting	THIRD	EWCA, RRG	3 years
1.2 Sustainable tools to reduce wild dog and Cheetah impact on livestock development disseminate across the country with in three years	1.2.1 Identify areas where Cheetah and AWD populations are significantly threatened by conflict with livestock herders	FIRST	EWCA ,RRG& others	3 years
	1.2.2 Identify the circumstances that contribute to livestock depredation by Cheetah and WD in identified areas	SECOND	EWCA, RRG& others	3 years
	1.2.3.Develop effective strategies for disseminating existing information on reducing Cheetah and WD impacts on livestock to relevant stakeholders across the country	THIRD	EWCA, RRG& others	3 years
	1.2.4 Work with communities in affected areas to develop and implement the most effective livestock husbandry strategies to reduce depredation by cheetah and	FOURTH	EWCA , RRG& others	3 years

	WD			
1.3 Initiate and develop community based development conservation program within three years in key areas	1.3.1 Identify areas in Ethiopia where Ecotourism could be assist cheetah and WD through sustainable economic benefits for local communities and therefore improve tolerance of both Spp.	FIRST	EWCA ,RRG& others	3 years
	1.3.2 Encourage sustainable tourism programmes the distribution of revenue to appropriate stakeholders in Cheetah & AWD Range	SECOND	EWCA, RRG& others	3 years
	1.3.3 In Area of the Country where Ecotourism is unlikely to provide sufficient benefits invetigate alternative options for generating revenue which encourage Cheetah & AWD Conservation	THIRD	EWCA & RRG, University research groups, ILRI, FARM Africa	3 years
	1.3.4. Develop and disseminate guideline for responsible tourist viewing of Cheetah & AWD	FOURTH	EWCA & RRG	3 years
1.4 Awareness creation programmes relevant to Cheetah and wild dog conservation developed in key areas throughout	1.4.1 Identify target areas and audience best placed to influence Cheetah & AWD Conservation	FIRST	EWCA, RRG& others	3 years
	1.4.2 Investigate local tradition, knowledge and cultural values to cheetah and AWD and incorporate into outreach material and strategies	SECOND	EWCA, RRG& others	3 years
	1.4.3 Tailor existing outreach materials for cheetah and AWD conservation to local condition in Ethiopia and disminate	THIRD	EWCA & RRG	3 years
	1.5.1 Identify areas where wild dog populations are significantly threatened by canid diseases	FIRST	EWCA , RRG& others	2 years
	1.5.2work with livestock and / or veterinary departments to encourage domestic dog vaccination and husbandary with in identified areas	SECOND	EWCA, RRG& others	2 years
1.5 Hoslistic canid disease management strategy developed in key areas within	1.5.3 evaluate existing disease management strategies for wild dogs and	THIRD	EWCA, RRG&other s	2 years

two years	related spp and assess their likely relevance to Ethiopia			
	1.5.4 Identify circumstances where intervention may or may not be appropriate through continued research on the dynamics of canid disease in areas where domestic dogs coexist with wild life	Forth	EWCA, RRG&others	2 years
	1.5.5 Evaluate the conservation potential of vaccinating free ranging wild dogs against canid diseases	Fifth	EWCA ,RRG& others	2 years

THEME: Surveys and information				
Objective 2: Improve knowledge on cheetah and wild dog populations and provide relevant stakeholders and managers with scientific and timely information.				
Target	Activity	Rank	Responsible party	Time Frame
2.1 Surveys and monitoring to evaluate presence, trends and threats in key cheetah & AWD ranges initiated and maintained.	2.1.1 Within known resident ranges, initiate and maintain monitoring activities to determine population trends and threats	1	Protected Area personnel, EWCA, Regional wildlife agencies	Ongoing, long term; annual reporting
	2.1.2 Establish a national large carnivore database to collate all available information (e.g. location, biological, conflict data) on these species to facilitate the sharing of data	2	Ethiopian Large Carnivore Working Group (ELCWG); EWCA; IUCN Canid/Cat Specialist Groups	Within one year; long term
	2.1.3 Conduct surveys to determine presence in areas identified as possible or unknown ranges in Ethiopia within 2 years	3	EWCA; Regional wildlife agencies; nearest PA personnel; conservation NGOs active in the region	2 years
	2.1.4 In some selected protected areas within known resident range conduct research to establish cheetah & AWD demographic and threats status	4	University research groups (national/ international); ELCWG; IUCN Canid/Cat Specialist Groups	2 years
2.2 Strategies for	2.2.1 Produce posters and leaflets with information on cheetah & AWD	1	EWCA; ELCWG; Regional Coordinator	within 1 year

disseminating information relevant to cheetah & AWD conservation to all key stakeholders in Ethiopia developed and implemented within 2-5 years	conservation in Amharic, Afan Oromo, Somali and English language			
	2.2.2 Distribute these posters and leaflets to all PA and regional government agencies (Wareda & kebele level) within cheetah & AWD range [local level]	2	PA staff; EWCA; Regional wildlife agencies	within 1-2 year
	2.2.3 Promote the use of publications, radio and television to diseminate information relevant to cheetah & AWD conservation [national level]	3	EWCA; ELCWG; Regional Coordinator	within 1-2 year
2.3 Set up mechanisms to monitor and communicate illegal traffic of cheetah individuals or products in order to facilitate law enforcement				
	2.3.1 Collect any information on illegal traffic of cheetah individuals or products within cheetah range	1	PA managers, Game rangers, Federal & local police	On-going, annual reporting
	2.3.2 Channel all illegal traffic information to the relevant wildlife management and law enforcement authorities	2	PA managers, EWCA, Regional wildlife conservation agencies	on a*d hoc* basis, annual reporting
	2.3.3 Monitor traffic of cheetah products in Addis Ababa, or in international borders	3	EWCA (PAPD Directorate); NGOs	on a*d hoc* basis, annual reporting
2.4 Establish channels of communication between agencies across borders in areas of trasboundary cheetah & AWD ranges				
	2.4.1 In those areas with transboundary cheetah & AWD populations facilitate information-exchange meetings	1	Regional Coordinator; EWCA; ELCWG	Within a year; Annually

	between PA managers on either side of the border			
	2.4.2 Collaborate with neighbouring countries to identify, and if possible stop, illegal trade routes for cheetah individuals and products	2	PA Managers; EWCA; ELCWG; Regional Coordinator	Within a year; Regular communication?

THEME: CAPACITY BUILDING				
Objective 3: Strengthen capacity to conserve cheetah and wild dogs				
Target	**Activity**	**Rank**	**Responsible party**	**Time Frame**
3.1 A cheetah and wild dog needs assessment report (NAR) for Ethiopia that includes capacity building at the national, regional and local level and funding secured for its implementation, within two to five years.	3.1.1 Appoint a national coordinator (NC) for cheetah and AWD NAP	2	LCWG/EWCA	2 months
	3.1.2 Formalize a large carnivore working group	1	ELCCPW, EWCA,IUCN CAT,HYENA,CANID SGs	Immediate
	3.1.3 NC conducts a needs assessment at the national, regional and local* level (*protected areas and/or Woredas)	4	NC and , Regional counterparts	2 years
	3.1.4 Review existing and possible resource streams for cheetah and WD conservation	3	LCWG, NC	1 year
	3.1.5 Create and disseminate a NAR 3.2 and 3.3	5	NC, LCWG	6 months for report and 1 year for additional funding

3.2 Improve capacity of higher level management (wardens, wildlife experts, regional offices) for effective conservation of cheetah and wild dog, within one to two years of securing funding.	3.2.1 Increasing understanding of cheetah and AWD biology and ecology, importance, NAP, relevant legislation and policy, conservation efforts. And strengthening AWD and cheetah conservation skills of managers through workshops, short intensive courses and /or experience sharing	2	NC, LCWG, WCS regional coordinator, BF, (SDPASE, EWCA)	1 year
	3.2.2 Identify the trainer(s) and/or training institutions and training material if needed	1	NC	3 months
	3.2.3 Work with law enforcement bodies to make aware of relevant legislation with regards to cheetah and AWD conservation	3	EWCA, law enforcement and judiciary bodies	
	3.2.4 Conservation education incorporated within school curriculum and training of educators	4	LCWG, NC	1 year

3.3 Have extension, enforcement, and monitoring personnel, including community, trained and equipped to operate within 75% of the cheetah and wild dog populations within two to three years of securing funding.	3.3.1 Train community experts within protected areas to carry out relevant extension work	3	NC, LCWG, EWCP, FZS, (SDPASE, EWCA)	1 year & ongoing
	3.3.2 Train scouts for law enforcement	4	NC, LCWG, EWCP, FZS, (SDPASE, EWCA)	1 year & ongoing
	3.3.3 Train wildlife experts in monitoring, data analysis and management and reporting	1	NC, LCWG, EWCP, FZS, (SDPASE, EWCA)	1 year & ongoing
	3.3.4 Provisioning of equipment	1.5 staged	generous soul	1 year & ongoing
	3.3.5 Train natural resource experts and/or relevant personel from development agencies outside protected areas to carry out relevant extension work, monitoring etc and reporting relevant details to law enforcement	2	NC, LCWG, EWCP, FZS, (SDPASE, EWCA)	1 year & ongoing

THEME: Land use planning				
Objective 4: Mainstream cheetah and wild dog conservation in land use planning and its implementation				
		Rank	Responsible party	Time Frame
4.1 Ensure government, local communities and other stakeholders within cheetah and wild dog ranges are made aware of the importance of wild dog and cheetah population within three to five years	4.1.1. Initiate & implement visiting program to regional and local government offices, civil societiy, higher learning institutions, lodges-hotels to present & distribute summary of cheetah & wild dog conservation issues, posters, and this strategic plan. 4.1.2. Establish environmental clubs at various levels in cheetah & wild dog range. 4.1.3. Produce environmental conservation education materials. 4.1.4. produce range maps of cheetah and wild dog for promotion and awareness creation	FOURTH SECOND THIRD FIRST	ELCWG EWNHS Mass media Related NGOs	1 year 6 months 6 months 1 year
4.2 Collaborative and integrated land use plan for Cheetah and wild dog range outside protected areas established within five years (considering habitat connectivity)	4.2.1. Advocate/lobby for recognition of cheetah AWD conservation needs in key areas of the country where currently land use is not conducive for the 2 species. 4.2.2 Organize steering committee/coordination body & technical	FIRST SECOND THIRD FOURTH FIFTH SIXTH	EWCA EPA IBC Universities EWNHS MoCT MoE MoA Regions EMA NGOs, MoD	6 months 6 months 1 year 2 years

	task force involving relevant stakeholders, including their TOR 4.2.3. Identify priority areas to be incorporated into land use plans 4.2.4. Develop & incorporate cheetah & wild dog conservation into national/ regional land use plan. 3.2.5. Adapt best practices form other range states for cheetah and AWD. 4.2.6. Implement some pilot projects with regard to the proposed plan			
4.3 Secure boundaries and improve management of existing protected areas in cheetah and wild dog ranges within two to five years	4.3.1. Revise the existing management plans and boundaries of Protected Areas 4.3.2. Enhance law enforcement in cheetah & WD ranges in and around Protected Areas 4.3.3. Build capacity of protected areas 4.3.4. Establish monitoring & research program for cheetah & wild dog conservation 5.3.5 Alternative livelihood devt for communities associated with PAs in cheetah, AWD range	FIRST SECOND THIRD FOURTH	EWCA & Regional and Local administration, International NGOs, UN(FAO),	1 year 2 years 5 years 2 years

THEME: Cooperation and transboundary management				
Objective 5: Encourage networking and collaboration within the country and with neighbouring countries				
Target	Activity	Rank	Responsibility	Time-Frame
5.1 Build in-country partnerships to monitor cheetah and African Wild Dog conservation activities	5.1.1. Constitute large carnivore forum. 5.1.3. Hold mandatory annual carnivore meetings	1	EWCA	1 Year
5.2 Establish transboundary body and framework for conservation of cheetah and AWD populations	5.2.1 Develop MoU for transboundary collaboration on cheetah and AWD conservation 5.2.2 Constitute and formalize a transboundary conservation task force for cheetah and AWD	2	EWCA, KWS, SSWS, Somalia wildlife authority, Eritrea govt, TRAFFIC, NGOs, WCS/ZSL	1-2 years
5.3 Identify and document areas to be declared as Transfrontier Conservation Areas	5.3.1.Undertake surveys and map potential transboundary conservation areas 5.3.2 Pursue designation of transboundary conservation areas	3	EWCA, KWS, SSWS, Somalia wildlife authority, NGOs, Universities, Individual researchers, Peace parks foundation	1 year 3 years

APPENDIX 4: ABBREVIATIONS USED IN THIS DOCUMENT

The following abbreviations and acronyms are used in this document:
AWF African Wildlife Foundation
BFF-Born Free Foundation
CMS- Convention on the Conservation of Migratory Species of Wild Animals
CSG Canid Specialist Group (part of SSC)
DDC Drylands Development Centre
EWCA- Ethiopian Wildlife Conservation Authority
EWCP- Ethiopian Wolf Conservation Programme
EWNHS-Ethiopian Wildlife and Natural History society
FAO-UN Food and Agriculture Organization
FZS- Frankfurt Zoological Society
KWS- Kenya Wildlife Service
MOU- Memorandum of Understanding
NC- National carnivore conservation coordinator
NGO Non-Governmental Organisation
SLWDP Samburu-Laikipia Wild Dog Project
SSC- Species Survival Commission (part of IUCN)
SSWS-South Sudan Wildlife Service
TRAFFIC-Trade Records Analysis of Flora and Fauna in Commerce
UNEP United Nations Environment Programme
WCS Wildlife Conservation Society
WWF World Wide Fund for Nature
ZSL- Zoological Society of London

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