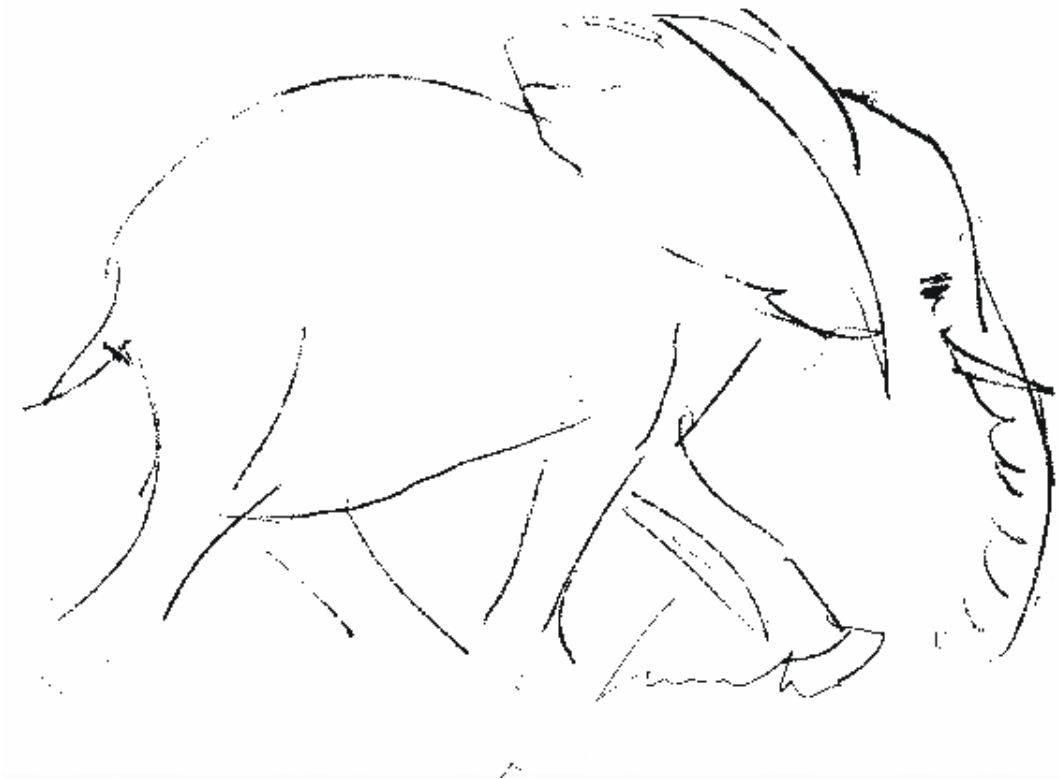


**NATIONAL POLICY AND STRATEGY
FOR THE CONSERVATION AND MANAGEMENT OF
ELEPHANTS IN BOTSWANA**



DG Ecological Consulting cc

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NATIONAL POLICY AND STRATEGY FOR THE CONSERVATION AND MANAGEMENT OF ELEPHANTS IN BOTSWANA

1 INTRODUCTION

Africa's remaining elephants are considered, at a continental level, to be under threat from illegal hunting. This threat resulted in an international ban on ivory sales being imposed in 1989. The elephant population in Botswana, however, is not threatened and is regarded as a natural resource of great economic potential. Being perhaps a third of the continental total, Botswana's elephants are of great significance and represent a very great conservation success for the country. At the same time these elephants are the primary agent of ecological change over a large part of the country, are one of the major causes of human-wildlife conflict and the source of international controversy. This presents unique management challenges, calling for a strategy that will be able to reconcile a number of complex issues.

To meet these challenges the Department of Wildlife and National Parks published a management plan in 1991¹ which has been the document governing the management of elephant to date. The strategies contained in the plan have had some success in instituting a programme of elephant utilisation, in achieving a limited legal international trade in elephant products, in continuing the effective protection of elephant from illegal activities and in monitoring their numbers and distributions. However, its objectives of controlling elephant numbers and minimising elephant impacts on habitat and human livelihoods have not been met. The number of elephants has doubled since 1991 and consequently the options for management have changed considerably, requiring a review and revision of the strategy.

The present strategy document has been arrived at through a comprehensive consultative process. Issues and objectives for elephant management were identified through a combination of focussed group discussions with rural communities within the elephant range, a workshop with a wide spectrum of National stakeholders ranging from community leaders to safari and tourism associations to Government departments. Issues identified from these consultations have been addressed by management options recommended by a technical team. A document containing the Issues, Options and Recommendations was produced as a background to the Policy and Strategy.

A draft of this National Policy and Strategy for Elephant Management was then taken back to the stakeholders at a second workshop for editing or approval and for identifying targets which would meet the objectives. The modified document was finally presented in detail to the Reference Group who made final changes.

This document will be the basis for a detailed Management Action Plan which should be written within 6 months of the acceptance of the Issues, Options and Recommendations for Elephant Management and this Strategy document.

The results of management will be evaluated in the light of the Strategy, its targets and the limits to change every 12 months and management activities will be adjusted accordingly. The plan and its objectives will be evaluated and revised, if necessary, every 3 years

2 ISSUES AND OPTIONS FOR ELEPHANT MANAGEMENT – A SUMMARY

A detailed documentation of the issues, options and recommendations for elephant management in Botswana was developed from consultations with stakeholders and technical experts. The contents of this are summarised very briefly as follows.

2.1 ISSUES

There are two categories of issues. Those that can be considered aesthetic issues are problems that relate directly to elephants and in which the perception of the problem is based on a value judgement. These are the most important as they represent the values, needs or aspirations of the stakeholders whom the management is to serve.

- Human-elephant conflict
- Elephant-induced environmental changes
- Utilisation of and benefit sharing from elephants
- Protection (of elephants) an law enforcement

Technical issues are secondary issues relating to the implementation of management of address the primary issues. These are:

- International obligations and restrictions
- Poor public relations
- Poor coordination between management agencies and stakeholders
- Planning conflicts (land use conflicts)
- Management logistics
- Costs of conflict mitigation
- Lack of technical information or understanding

2.2 OPTIONS

2.2.1 Human-elephant conflict

While it has been found that a combination to make it difficult for elephants to reach their target, alerts farmers to their approach and enables them to chase them away, individual methods are:

- Killing problem animals
- Elimination or reduction of the elephant population
- Erection of barriers
- Disturbance
- Repellents
- Moving people
- Providing incentives to increase tolerance by people for elephants

2.2.2 Control of numbers

Numbers are reduced or maintained by targeting largely the family groups in a population. Methods include:

- culling – entire family groups are killed
- translocation – live animals are captured and moved
- passive dispersal – animals are allowed or encouraged to move out of an area
- provision of additional water sources – animals are drawn out of problem areas to spread the impact

2.2.3 Vegetation protection

Selected stands may be given total protection by excluding elephants and other herbivores using electric or cable fences.

2.2.4 Maximising benefits

Options for obtaining economic benefits from elephants include:

- Safari hunting – elephant bulls are killed for “sport” by individual hunters for high fees
- Citizen hunting – elephants are killed on licences issued by lottery to Botswana citizens
- Cropping – entire family groups are shot on a sustainable basis and the products sold
- Live sales – live animals are sold and translocated
- Domestication – tame individuals are trained and used for various purposes including tourism
- Tourism – people visit an area to look at, photograph or film animals and scenery
- Research and general publicity – elephants are much sought after as research subjects

2.2.5 Law enforcement

This comprises:

- Anti-poaching activities – patrols, investigations, monitoring, law, education
- Resources – funding and personnel must be adequate (between US\$82 and US\$200 per km² and no less than one man per 50 km²).

2.2.6 International cooperation

- CITES and international obligations through continued participation in international conventions
- Cross border issues – maintaining corridors, monitoring, research and coordination of management

3 MISSION STATEMENT OF THE DEPARTMENT OF WILDLIFE AND NATIONAL PARKS

We, the Department of Wildlife and National Parks will effectively conserve the wildlife of Botswana in consultation with local, regional and international stakeholders for the benefit of present and future generations. We will promote and facilitate sustainable utilisation of wildlife resources through active participation of citizens. We place emphasis on partnership with the private sector to fully develop the potential of wildlife resources.

This mission will achieve the following objectives:

- To ensure the conservation of biodiversity throughout Botswana in the interests of present and future generations.
- To ensure the conservation of the indigenous wildlife and habitat in the National Parks and Reserves through minimal interference and where necessary by adaptive management
- To involve communities, NGOs and the private sector in the realisation of the full economic potential of wildlife resources outside the protected areas through sustainable utilisation whilst maintaining the country's biodiversity.
- To promote continuous research in all areas related to management of wildlife resources in Botswana.
- To raise public awareness and appreciation of Botswana's unique wildlife resources.
- To enforce the laws relating to wildlife resources.

These objectives are repeated in each of the management plans for protected areas within the elephant range (Chobe National Park², Moremi Game Reserve³, Makgikgadi and Nxai Pans National Parks⁴).

4 THE ELEPHANT MANAGEMENT GOAL

The overall Goal for elephant conservation and management in Botswana is to:

CONSERVE AND OPTIMISE ELEPHANT POPULATIONS WHILE ENSURING THE MAINTENANCE OF HABITATS AND BIODIVERSITY, PROMOTING THE CONTRIBUTION OF ELEPHANTS TO NATIONAL DEVELOPMENT AND TO THE COMMUNITIES WITHIN THEIR RANGE AT THE SAME TIME AS MINIMISING THEIR NEGATIVE IMPACTS ON RURAL LIVELIHOODS

Within this over-arching goal, there are four primary objectives:

- Reduce human-elephant conflict to acceptable levels
- Prevent, reduce or reverse unacceptable elephant-induced environmental changes
- Maximise the benefits from sustainable utilisation of elephant
- Protect elephants through law enforcement

and the following five supporting objectives:

- Meet international obligations on elephant conservation, monitoring and management
- Improve public awareness of management needs
- Improve communication and coordination within and between stakeholders and role players
- Acquire adequate information for DWNP to manage elephants effectively
- Improve institutional and technical capacity for management

5 MANAGEMENT PRINCIPLES ADOPTED FOR ELEPHANT

Although the African elephant has been classified as threatened, in Botswana the population is large, increasing and vital to the tourism industry of the country. It is also the source of controversy, conflict and concern and management of the species must be sensitive to the issues surrounding it while maintaining a primary objective of conserving the species. The general management policy in National Parks and Game Reserves is “minimum intervention”. This does not mean no action, but is intended to restrict management to that which is absolutely necessary and to allow natural processes to continue as far as possible.

In developing this document, the following principles have been applied:

Management should be precautionary. If there is a possibility of a problem arising, and even though the system may be poorly understood, it is better to carry out a management activity than risk the consequences of a worsening problem.

In selecting management options, it is better to select the one that presents the least risk (minimum regret) should the action prove to be inappropriate.

Management activities should be process-based and adaptive. They should be designed so that they can be continually adjusted in response to the results of previous activities. Such activities are incorporated into a strategy that involves continuous evaluation through monitoring the effects of the activities.

Management should be feasible, practical, economic and aesthetically acceptable.

6 OBJECTIVES, STRATEGIES AND ACTIVITIES

The strategies and activities necessary to achieve each objective are described in the following sections. Where appropriate quantified targets are given against which the success of management can be judged.

OBJECTIVE ONE
REDUCE HUMAN-ELEPHANT CONFLICT TO ACCEPTABLE LEVELS

RATIONALE

The impact of elephants on the livelihoods of people living within the elephant range can be severe. In all communities where elephants and humans coexist, there are varying levels of conflict. Elephants may damage or destroy crops, water supplies, grain stores, fences and people are sometimes injured or killed in defence of their property. They also impact communities by causing loss of sleep and restriction of movements. From 1997 to 2002 the average number of reported incidents was 150 per year.

Although it is only a small number of elephants causing most of the damage, removing “problem animals” may not solve the problem in the long term as they will be replaced by others from the population. However, where the problem is due to a small discrete population, removal of the whole population may be effective.

Tolerance towards elephant damage varies depending on mitigating circumstances (such as benefits from wildlife accruing to communities). Empowerment of communities to carry out control measures⁵ is also expected to help increase both tolerance and the effectiveness of measures

The recommendations of the IUCN African Elephant Specialist Group’s “Decision Support System for managing human-elephant conflict situations” (2001)⁶ should be followed.

TARGETS

- By the year 2007 there will be no more than 50 human-elephant conflict incidents per year.
- 5 communities within the elephant range will be trained in Problem Animal Control measures each year
- An elephant-free zone will have been created in Bobirwa subdistrict by 2004 and other parts of Central District by 2005
- Relevant statistics will be reported annually

STRATEGY 1: *Assess human-elephant conflict cases and put appropriate counter-measures in place*

Activities:

- Set up or improve the human-elephant conflict database
- Maintain comprehensive records of human-elephant conflicts
- Identify focal points for conflicts
- Promote community participation (training etc)
- Encourage and assist affected communities or land owners to address the problem themselves using multiple countermeasures including disturbance of animals, physical barriers, repellents
- Remove elephants.

STRATEGY 2: *Provide incentives to increase tolerance by encouraging utilisation of elephants while ensuring benefits return directly to affected communities*

Activities:

- Develop tourist facilities with benefits accruing to communities
- Return benefits from safari hunting in affected areas to communities
- Facilitate live sales of animals with benefits accruing to communities
- Regular cropping of entire herds of elephants at sustainable levels, with proceeds from sale of products and meat being returned to communities (dependent on economic feasibility)

STRATEGY 3: *Reduce or eliminate elephants as applicable*

Activities:

- Where applicable, determine the feasibility of reducing numbers
- Reduce numbers
- Where applicable, remove all elephants from the area; Prevent fresh immigration by erecting and maintaining electric or cable fences and remove any elephants that enter the area

STRATEGY 4: *Compensate affected individuals*

Activities:

- Write guideline for circumstances in which compensation is paid
- Set up systems for fair compensation (rapid reaction, damage assessment, valuation of damage, prompt payment of compensation)
- Record and report incidents and payments

OBJECTIVE TWO
PREVENT, REDUCE OR REVERSE UNACCEPTABLE ELEPHANT-INDUCED ENVIRONMENTAL CHANGES

RATIONALE

Loss of canopy trees at a rate that exceeds the potential rate of replacement by natural regeneration has been a widely reported phenomenon wherever elephants have reached high densities. This problem has been well documented for northern Botswana since the late 1960s and removal of trees is still a notable phenomenon over much of the elephant range.

The issue is often seen as a technical problem, implying that tree loss is “unnatural” and poses a threat to biodiversity and the ecosystem as a whole. However, it is primarily an aesthetic issue; that is, the loss of large trees and loss of the associated scenic beauty is perceived to be undesirable and therefore requires management intervention to prevent and reverse it. The objective of preventing loss of trees has been identified by stakeholders, who have also made it clear that in many areas the absolute amount of tree-loss is not acceptable. There is broad agreement that a loss of less than 40% (against an air-photo baseline) is acceptable, though in forestry areas a loss limited to less than 20% is considered necessary to meet the objectives of the forestry management plan⁷. The targets given below are technical ones addressing the recovery of woodland rather than its final state.

In order to achieve the objectives in some woodlands, fire will have to be controlled as well to minimise the synergistic effect that elephants and fire have together. This is a joint concern with Forestry^{7,11}.

TARGETS

- Where changes are considered to be unacceptable, by the year 2007: for fast growing trees (eg *Acacia spp*), no more than 5% will have been lost per year for slow growing trees (eg *Baikaea*) no more than 1% will have been lost per year or a sustainable rate of loss, determined by research, will have been achieved.
- Within three years of being identified, those areas in which most of the canopy trees have already been removed, will have measures in place to ensure that recruitment exceeds loss in all size classes.
- In areas where changes are unacceptable and fire is a factor, fires will have been reduced to an average frequency of one in five years, or a lesser frequency as determined to be necessary, by 2009.

STRATEGY 1: *In some areas accept that changes to environment are of less importance than other issues regarding elephants (such as tourism)*

Activities:

- Monitor changes to vegetation, levels of erosion, changes in composition of mammalian, avian, reptilian and vegetation communities. Report and evaluate changes.

STRATEGY 2: *Bring impacts of elephant to within limits to acceptable change*

Activities:

- Select options and implement the most appropriate method for reducing elephants numbers.
- Implement monitoring of vegetation and animals; when there is a return to within acceptable limits, stabilise elephant numbers.
- Develop a fire protection and management programme.
- Clear firebreaks, control and prevent fires. Map and monitor fires.

STRATEGY 3: *Protect samples of habitat types that are threatened by elephant to preserve parts of the original vegetation diversity and create a species bank for the future*

Activities

- Totally protect selected stands of vegetation by excluding elephants and other herbivores.
- Determine necessary stand size and numbers, but at least 5 replicates of 1ha stands in each of the full spectrum of vegetation types should be enclosed initially, using well maintained electric or cable fences. Consolidate stands into larger fenced blocks where the vegetation distribution permits.

OBJECTIVE THREE
MAXIMISE THE UTILISATION OF AND BENEFITS FROM ELEPHANT

RATIONALE

Elephants have economic value through four main uses: as a primary draw card for game viewing, safari hunting, citizen hunting and cropping or culling for ivory, hides and meat. It has been shown that when it is possible to trade in elephant products, a combination of all four uses is optimal but without trade, benign tourism combined with safari hunting makes optimal use of elephants

The National policy⁸ on utilisation of wildlife gives as its objectives the realisation of the full potential of wildlife and the development of a commercial wildlife industry. This reflects the strong desire of citizens to obtain maximum benefits from wildlife.

In addition, because of conflict with humans and because of the economic potential of conflicting land uses, there is a real threat to the long-term conservation of the African elephant. To counteract this threat, it is necessary that the economic value of the species is maximised. Most communities want to benefit from elephant in some way: many see elephants as an opportunity for diversifying the rural economy but only those communities involved in CBNRM projects have a strong sense of ownership of elephants and a positive attitude towards conserving them. Elephant is also a focal species of considerable economic value to the private sector.

Botswana is a signatory to CITES (the Convention on the International Trade in Endangered Species (see Appendix II: institutional arrangements)) by which legal international trade in elephant products is controlled. Although Botswana's elephants have been downlisted to Appendix II of CITES, restrictions on ivory sales, imposed at the time of downlisting in 1997, remain.

Hunting trophies (ivory) can be exported. At present sport-hunting quotas are relatively low because the safari industry would not be able to effectively and economically utilise a bigger quota as quotas for other species limit the possible number of hunting packages available. Although the industry also feels that increased quotas would threaten the desired trophy size, the possibility of an increase while remaining within acceptable limits on trophies should be tested.

CITES has no direct control on activities involving trade within Botswana and it is therefore possible for Botswana to undertake management practices such as culling, cropping, translocation and sport-hunting elephants without the approval of the convention. However, in practice, CITES does impose limits on consumptive use of elephants as it is not possible for the ivory produced to be freely sold outside Botswana and internal markets are limited. The effect of CITES controls in Botswana has been to halve the potential economic use value of elephant. Although the sale of hides is possible, the profitability of this, given the high recovery costs, is not known. It is therefore necessary that CITES restrictions on Botswana's elephant products, over and above customary requirements for an Appendix II species, be removed before the full economic value of Botswana's elephants can be realised.

It is important to bear in mind that international opinion might have other impacts on Botswana's economy than merely, through CITES, frustrating efforts to sell ivory. For instance, it has been claimed that cropping or even culling for purely management purposes could result in a significant international outcry which might affect tourism (objective 6, below, attempts to address this).

Consumptive utilisation is also covered in legislation⁹.

TARGETS

- 50% of the stockpiled ivory will have been sold by the year 2005.
- By 2006, at least 60% of the villages within the elephant range will have formed Wildlife Management Trusts and at least 40% of these communities will be benefiting from elephants.
- The average tusk weight per side of elephants shot on safari should be no less than 23kg.
- Sport hunting should not exceed 0.5%

STRATEGY 1: *Ensure that financial returns from elephant products also benefit conservation activities*

Activities:

- Some of the returns from elephant utilisation should be allocated to a wildlife conservation trust fund, set up by act of parliament

STRATEGY 2: *Improve the opportunities for benign tourism*

Activities:

- Provide support for and facilitate non-consumptive tourism

STRATEGY 3: *Facilitate the sustainable use of elephants within policy guidelines*

Activities:

- Allocate sustainable quotas among citizen hunting blocks, concession areas and community management areas according to estimated number of elephant in each area
- Enable sustainable quotas of other species to be hunted
- Monitor trophy off take. Adjust quota to keep trophy size within acceptable limits.

STRATEGY 4: *Improve the returns from consumptive utilisation*

Activities:

- Make a strong case for opening trade in elephant products by demonstrating effective control of illegal hunting, monitoring elephant populations, hunting operations (safari) and problem animal control activities and by maintaining complete transparency in all activities regarding elephant management
- Carry out feasibility study of the potential market for elephant meat and other products. If there proves to be a market for elephant products, undertake feasibility

studies on the development of an abattoir for processing elephant products and on the development of a tannery

<p>OBJECTIVE FOUR PROTECT ELEPHANTS THROUGH LAW ENFORCEMENT</p>
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RATIONALE

The decline of the continental population of elephant has been attributed at least in part to excessive illegal hunting of elephant for ivory. In Botswana this has not yet become a threat to the elephant population. This does not mean it will not become a serious issue in the future if incentives to poach should increase, or the deterrents decrease. The first threat from illegal hunting will be to the trophy carrying animals rather than the population; the target set reflects this. Present levels of poaching loss (< 0.05) are well within this limit.

Control of illegal hunting concerns more than just elephant management and is covered in legislation^{9, 10} and other policy¹¹.

TARGET

Illegal incidents will result in the loss of less than 0.05 % of the elephant population per year.

STRATEGY 1: Monitor illegal activity closely

Activities:

- Maintain detailed records of reports of illegal activity, patrols, results
- In MIKE sites follow procedures for monitoring according to MIKE protocols

STRATEGY 2: Improve anti-poaching activities where necessary

Activities:

- Maintain an efficient system of anti-poaching patrols
- Maintain a high level of training for anti-poaching units
- Increase numbers of staff where necessary
- Allocate funds for field allowances and performance-related incentives (bonuses for arrests etc)
- Provide good equipment and facilities for field staff
- Establish or maintain good intelligence networks
- Maintain cross border intelligence contacts
- Select and train community game guards to complement anti-poaching units
- Continue to incorporate BDF personnel into law enforcement programme

<p>OBJECTIVE FIVE MEET INTERNATIONAL OBLIGATIONS</p>
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RATIONALE

Botswana's elephants are perceived as an important global heritage. It is therefore in Botswana's interests to continue to participate in international fora and abide by and participate in the preparation of international agreements.

International concerns also include cross-border issues. The elephants in northern Botswana are part of a larger population, which stretches from Zimbabwe through Botswana and Namibia. The small population of Tuli in the southeast of the country will become part of a population that will be managed jointly with South Africa and Zimbabwe. There is a similar "transfrontier" initiative (the "Four Corners" project) in the extreme north which will also entail joint management of wildlife populations with the neighbouring countries of Zambia, Zimbabwe and Namibia. It is important that cooperation is such that management policies and actions in bordering areas are coordinated between neighbours.

TARGETS

- Botswana will continue to meet all reporting requirements of CITES and MIKE
- Botswana will continue to meet all licensing requirements of CITES
- Reports to the IUCN African Elephant Specialist Group's Database will be made as required
- Cross border working committees will meet four times per year
- Corridors and compatible land-uses adjacent to wildlife areas in adjacent countries will be maintained and extended where possible
- Dialogue with range states on continental elephant issues will be maintained

STRATEGY 1: Continue to participate in CITES and to support the MIKE project**Activities:**

- Produce the required information on elephant
- Allocate appropriate staff for participating in CITES related work

STRATEGY 2: Facilitate cross-border initiatives**Activities:**

- Cooperate with neighbouring countries in developing transfrontier conservation initiatives
- Establish or continue an inter-governmental committee to deal with cross-border issues
- Coordinate timing of cross – border elephant surveys

STRATEGY 3: Maintain transparency of any operations that might affect shared elephant populations

Activities:

- Communicate management plans and intentions with the relevant agencies in neighbouring countries

STRATEGY 4: Cooperate with Southern African states on CITES issues

Activities:

- Continue to work on elephant issues through SADC Wildlife Technical Committee

OBJECTIVE SIX
IMPROVE PUBLIC AWARENESS OF MANAGEMENT ACTIVITIES

RATIONALE

It is important that there is adequate consultation by government regarding elephant management, in order that communities within the elephant range and the wider citizenry understand management issues and identify with management programmes.

Global public misunderstanding of elephant management issues (mainly in the west) and misinformation spread by interest groups needs to be countered. It has been shown elsewhere (Malawi and Zimbabwe) that once management activities have been explained, justified and understood, adverse publicity is much reduced.

Note that initiatives related to making the case for trading of elephant products is part of objective 3.

TARGETS

- By 2004 management activities and their basis will be published and disseminated annually.
- By 2004, public awareness campaigns will be undertaken regularly
- Means for disseminating Botswana's case for elephant management internationally will be in place by 2005 (see Objective 3 and Goal 4.3 of the DWNP Strategic Plan⁵) to counter any potential negative publicity. Priority will have been given to addressing pressure groups, trade organisations and relevant organisations in South Africa

STRATEGY 1: ***Ensure that management activities are carried out with the full awareness of communities that might be affected***

Activities:

- When major changes in policy or new management plans are to be developed, involve community and urban leaders and other stakeholders in the process through consultation and workshops

STRATEGY 2: ***Increase public understanding about National and International elephant issues***

Activities:

- Improve extension work in communities and bring information about management activities to the knowledge of communities and other Batswana

OBJECTIVE SEVEN
IMPROVE COMMUNICATION AND COORDINATION WITHIN AND BETWEEN
STAKEHOLDERS AND ROLE PLAYERS

RATIONALE

Occasionally, separate government agencies adopt conflicting policies on the same issue. Policies developed for wildlife may conflict with those of a specific land use category. Management activities by wildlife agencies can work against the goals and objectives of an area and can be the cause of resentment and lack of cooperation. For example, there have been occasions, for example, on which land has been allocated for practices which conflict with the wildlife management activities for which the land has been designated.

TARGET

- The implementation of an agreed communication strategy will be in place by the year 2006.

STRATEGY 1: ***Coordinate policies, strategies and activities relating to elephant management with other agencies and stakeholders***

Activities:

- Communicate all management intentions to relevant agencies (other government departments such as Forestry, Land Board) and stakeholders (concession holders, communities etc) as specified in the DWNP Strategic Plan⁵ (Goal 4.3).

OBJECTIVE EIGHT
ACQUIRE ADEQUATE INFORMATION FOR DWNP TO
MANAGE ELEPHANTS EFFECTIVELY

RATIONALE

The function of research under the elephant management strategy is to support adaptive management, ie research is an activity under each of the primary objectives. The main themes are, however, summarised again under this objective.

Beyond this applied research, which will mostly be carried out by Government, it is the intention to promote pure research by external research workers.

TARGETS

The following monitoring programmes will be in place by 2004:

- Numbers and distributions of elephants throughout the entire elephant range monitored annually during the dry season
- wet season distributions monitored at least every two years
- habitat monitoring biannually
- HEC monitoring refined and improved and data stored & analysed monthly
- Implement the MIKE project and expand if feasible
- Antipoaching incidents and responses monitored and analysed monthly
- All databases consolidated, coordinated and updated

STRATEGY 1: ***Continue monitoring the elephant population through aerial surveys of the entire elephant range***

Activities:

- Undertake scientifically designed and repeatable aerial surveys, ensuring comparability by maintaining set standards
- Analysis should provide estimates of numbers with 95% confidence limits (for the whole population and for protected areas) and density distribution maps
- Aerial surveys of the northern population should be carried out at a sampling intensity of not less than 7%.
- The northern population should be surveyed during the dry season every year and during the wet season every second year.
- During an abnormally poor rainy season, a wet season aerial survey should be undertaken, whether it is due or not

STRATEGY 2: *Map and monitor habitats in which elephant are thought to have had or will have impact on vegetation (eg Chobe and Linyanti riparian forests, designated Forest Areas, mopane woodlands in NG41 etc)*

Activities:

- Use aerial photography and aerial reconnaissance to establish the boundaries of areas of interest. Follow up with some sampling on the ground and assess damage.
- In areas of high elephant densities mark 1000 individual trees of vulnerable species and record positions using GPS.
- Use GIS to map trees
- Revisit sites every two years and note status of marked trees. Re-map.

STRATEGY 3: *Establish the required actions for habitat recovery*

Activities:

- Establish exclosures with sufficient control replicates to identify and monitor the effects of removing elephant and other herbivores on the vegetation in vulnerable habitats

STRATEGY 4: *Monitor Human-Elephant conflict*

Activities:

- Record reports of conflict incidents with details of position (grid coordinates of site), number of animals involved, sex of animals involved (if possible), type of damage, amount of damage, estimated cost of damage, actions taken, cost of responses
- Analysis PAC data on a monthly basis to show distribution of incidents, number of incidents, types of incidents and costs

STRATEGY 5: *Promote research into other aspects of elephant biology by independent research workers*

Activities:

- Evaluate each research proposal with respect to its acceptability.
- Issue permits as appropriate
- Cooperate and exchange information with research workers.
- Receive and archive research data and reports.

<p style="text-align: center;">OBJECTIVE NINE IMPROVE INSTITUTIONAL AND TECHNICAL CAPACITY FOR MANAGEMENT</p>

RATIONALE

Whatever management strategy may be selected, none is possible without sufficient skilled and well-equipped staff to carry out the necessary activities. There have been improvements to both institutional and technical capacity with the DWNP over the past decade and further developments are planned or actually underway. The DWNP is probably the best-funded wildlife agency in Africa and it is usually possible to obtain the necessary financing for most operations, provided it is properly planned for and well administered. Training is and has been on-going and DWNP staff are well-qualified and well-trained through in-house and external education. This objective is cross-cutting with other management programmes and is covered in the DWNP Strategic Plan⁵.

TARGETS

- DWNP will have conducted a training needs assessment and trained staff by 2004
- Existing staff will be rationalised to cater for plan implementation by 2005

STRATEGY 1: Provide adequate man power**Activities:**

- Activities in line with Goal 4.1 of the DWNP Strategic Plan⁵

7 GEOGRAPHIC COMPONENTS OF MANAGEMENT STRATEGIES

Section 6 above presented descriptions of the strategies required for elephant management in Botswana. However, different areas in the country have different objectives with regard to elephant management and conservation, and different strategies may therefore be required in different areas. Furthermore, where there are alternatives, an activity may be appropriate in one area and not in another.

This Section provides details of management activities required in each land unit to facilitate the development of implementation plans. To avoid repetition, the relevant strategies for addressing the objectives for each area are referred to only by the numbers allocated in Section 6.

7.1 ELEPHANT FREE ZONE

Land Units: CT4, CT6, CT7, CT8, CT10, CT11, CT12, CT13, CT14, CT15, CT16, CT17, CT18, CT19, CT20, CT21, CT22, CT23, CT24, CT25, CT26, CT27

Comments: A small number of elephants in eastern Botswana have caused problems regularly in communities and the people have indicated strongly that the removal of elephants entirely is the most desirable solution. People living south of the Boteti River near the Makgadikgadi Pans National Park have also shown a preference for this idea, although a significant reduction in conflict incidents along with some measure of benefit from elephants accruing to communities may induce a more tolerant point of view.

Citizen hunting quotas have been allocated in CT16 and CT18, targeting animals crossing the border from Zimbabwe. This will no longer be applicable.

Borders	<p><i>Activities:</i> Erect new fences where necessary to link all fences around Central District (the proposed fences along the Makgadikgadi Pans NP, the Ngwasha Fence and the fence along the Zimbabwe border). Responsibility for maintenance of fences falls to the DAHP except along the border of the Tuli block where the owners will take this responsibility</p>
All areas	<p><i>Objective One: Eliminate HEC</i> <i>Strategy No. 3</i> <i>Activities:</i> Remove all elephants to maintain an elephant-free zone in part of Central District Rigorously keep all fences in a good state of repair Remove any new elephant immigrants Record and report on all activities</p>

7.2 COMMUNITY MANAGED WILDLIFE IN LIVESTOCK AREAS

Land Units: CH1, CH2, CH8, NG1, NG2, NG3, NG4, NG5, NG6, NG12

Comment: This section includes a CBNRM area (CH1), forest land (CH2), pastoral/agricultural lands (NG3, NG6 and NG12) and wildlife management areas (NG4, NG5). They may occur in varying densities in the other land units in this category and thus come into conflict where human settlements overlap with their range.

Elephants are not numerous in NG1 and NG2 and are usually seasonal migrants.

Although the forest area (CH2) is also a wildlife utilisation area, its primary objective is those of forest reserves and is therefore dealt with under section 7.6.

All units	<p><i>Objective One: Reduce HEC to acceptable levels</i> <i>Strategies nos 1 and 2</i> <i>Activities:</i> In all units except the Forest Land (CH2), install countermeasures to reduce HEC, particularly encouraging community control/participation in PAC. Increasing numbers of people within the elephant range should be trained in PAC and assisted with obtaining necessary equipment and materials.</p>
CH1	<p><i>Objective Three: Maximise the utilisation of and benefits from elephant</i> <i>Strategies nos 3 and 4</i> <i>Activities:</i> Continue to facilitate CBNRM activities, ensuring that benefits return to the communities.</p>

7.3 WILDLIFE UTILISATION AREAS (COMMUNITY - LEASEHOLD)

Land Units: NG18, NG22, NG32, NG34, NG41, NG49, CT10

Comments: CT10 will become part of the elephant-free zone once the fence around Makgadikgadi Pans National Parks has been erected.
Khwaai CBO utilises NG18 and NG19
There is concern that elephant may impact negatively on fragile habitats, targeting palm trees and destabilising some of the land within the Delta.

<p>NG18, NG22 NG32, NG34</p>	<p><i>Objective Three: Maximise the utilisation of and benefits from elephant Strategies nos 2 and 3</i> <i>Activities:</i> While consumptive utilisation is an option for these areas, the communities also manage NG19 and NG33 which are photographic areas (section 6.5). Activities in these must not impinge on each other.</p> <p>Combine safari hunting with non-consumptive tourism to maximise benefits from elephant. Management areas must be zoned to ensure that there is no overlap in conflicting activities (game viewing, mokoro safaris and trophy hunting safaris).</p> <p><i>Objective two: Prevent, reduce or reverse unacceptable elephant-induced environmental changes</i> <i>Strategy no. 2</i> <i>Activities:</i> Reduce impacts on vegetation in NG32 by removing elephants towards the southern periphery of the area</p>
<p>NG41</p>	<p><i>Objective Three: Maximise the utilisation of and benefits from elephant Strategies nos 2 and 3</i> <i>Activities:</i> Concession for this area currently held by Mababe Trust. The area is zoned for both consumptive and non-consumptive utilisation (trophy hunting and photographic safaris).</p>

7.4 WILDLIFE UTILISATION AREAS (COMMERCIAL – LEASEHOLD)

Land Units: CH12, NG14, NG15, NG16, NG20, NG25, NG26, NG29, NG30, NG42, NG43, NG47, CT1, CT2, CT3

Comments: Habitat change is an issue in NG14 because elephants have only reached this area recently and there is a much higher rate of current tree loss than in other areas.

CH12, NG42, NG43, NG47, CT1, CT2, CT3	<p><i>Objective Three: Maximise the utilisation of and benefits from elephant Strategy no 3</i></p> <p><i>Activities:</i> Trophy hunting of bull elephants to maximise returns (already in place)</p>
NG14	<p><i>Objective Three: Maximise the utilisation of and benefits from elephant Strategies nos 2 and 3</i></p> <p><i>Activities:</i> Trophy hunting of bull elephants to maximise returns. Photographic tourism also appropriate in scenic sites along the rivers. Remove some elephants to reduce impacts on vegetation. This must be done inland from the river to minimise conflict with other activities.</p>
NG15, NG16, NG20	<p><i>Objective Three: Maximise the utilisation of and benefits from elephant Strategies nos 2 and 3</i></p> <p><i>Activities:</i> Trophy hunting of bull elephants to maximise returns. Photographic tourism also appropriate in scenic sites along the rivers.</p> <p><i>Objective two: Prevent, reduce or reverse unacceptable elephant-induced environmental changes</i></p> <p><i>Strategy no. 2</i></p> <p><i>Activities:</i> As the elephant population expands, it is likely that habitats which have not yet been affected by elephant will come under pressure and tree loss will increase. Elephant population reduction may become necessary in future in response to unacceptable habitat changes</p>
NG25, NG26, NG29, NG30	<p><i>Objective Three: Maximise the utilisation of and benefits from elephant Strategies nos 2 and 3</i></p> <p><i>Activities:</i> Multiple use (hunting/photographic) area.</p> <p><i>Objective two: Prevent, reduce or reverse unacceptable elephant-induced environmental changes</i></p> <p><i>Strategy no. 2</i></p> <p><i>Activities:</i> Removal of some elephants should be considered in the south and west of the areas (i.e. along the periphery of the range) to reduce potential pressure on vegetation.</p>

7.5 PHOTOGRAPHIC AREAS (COMMUNITY AND COMMERCIAL)

Land Units: CH11, NG17, NG19, NG21, NG23, NG24, NG27A, NG27B, NG31, NG33, CT11

Comments: Although there are significant negative impacts of elephant on habitats in parts of these land units, none of the areas are large and therefore while some control over impacts would be appropriate, removal of animals in these areas alone would not be effective. Fencing selected habitats would be unsightly but may be an option if the need for them is explained to tourists.

All areas	<p><i>Objective two: Prevent, reduce or reverse unacceptable elephant-induced environmental changes</i></p> <p><i>Strategy no. 2</i></p> <p><i>Activities:</i></p> <p>Investigate the use of chemical, acoustic or other deterrents to protect individual trees</p> <p><i>Objective Three: Maximise the utilisation of and benefits from elephant</i></p> <p><i>Strategy no. 2</i></p> <p><i>Activities:</i></p> <p>Provide opportunities for encouraging photographic/game-viewing tourism.</p> <p>Distribution of benefits among participants should be appropriate.</p>
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7.6 PRIVATE/COMMERCIAL LAND/QUARANTINE CAMPS etc.

Land Units: CH9, NG39, NG45, NG51, CT5, CT29, CT30, CT22

Comments: Elephants have not been recorded in all of these units.

Some of the private leasehold ranches (previously BLDC lands) and TGLP lands have had infrastructure (fences) damaged by elephants.

CH9 is vulnerable to incursions of wildlife from Zimbabwe but elephants have not yet become a problem

CH9	<p><i>Objective One: Reduce HEC to acceptable levels</i></p> <p><i>Strategy no. 1</i></p> <p><i>Activities:</i></p> <p>Land owners responsible for maintaining fences</p> <p>Elephants should be chased out of area and barriers made elephant-proof</p>
All other units	Government agencies are responsible for maintaining fences where applicable

7.7 FOREST RESERVES

Land Units: CH2, CH4, CH6, CH7, CH13,

Comments: CH2 forest land is available for communal wildlife utilisation and livestock grazing. Wildlife utilisation is also permitted in the other forest reserves⁷. Elephant-induced habitat changes are not acceptable in forest reserves in terms of the objectives of the Forests Inventory and Management Plan⁷. However the position of CH2 in relation to the Chobe National Park suggests that management of elephant in that forest will have to be coordinated closely with elephant management in the Park, and, for example, attempts at reducing numbers to reduce any impacts on the woodland that might be considered unacceptable would be futile unless similar exercises are undertaken within the Park. Other objectives of the Plan such as allowing ecotourism activities should be pursued by the appropriate authorities with particular regard to changing the legislation as necessary.

Population reduction in forest reserves on the Zimbabwe border is unlikely to affect the movement of animals from one country to the other as such operations should only take place during a limited period in winter when such movements are less likely to occur. There should be liaison with Zimbabwe.

All Units	<p><i>Objective Two: Prevent, reduce or reverse unacceptable elephant-induced environmental changes</i></p> <p><i>Strategy no. 1</i></p> <p><i>Objective Eight: Acquire adequate information for DWNP to manage elephants effectively</i></p> <p><i>Strategies 2 and 3</i></p> <p><i>Activities:</i></p> <p>Full implementation of the Chobe Forests Inventory and Management Plan⁷. In permanent sample plots, parameters relating to elephant influence should be included as part of standard monitoring. Species favoured by elephants should be identified⁷.</p>
CH2	<p><i>Objective Two: Prevent, reduce or reverse unacceptable elephant-induced environmental changes</i></p> <p><i>Strategy no. 2</i></p> <p><i>Activities:</i></p> <p>Create exclosures of habitat types. Use as a “sink” by removal of elephants.</p>
CH2,CH4, CH6, CH7, CH13	<p><i>Objective Two: Prevent, reduce or reverse unacceptable elephant-induced environmental changes</i></p> <p><i>Strategy no. 2</i></p> <p>Reduce numbers of elephants.</p>

7.8 NATIONAL PARKS AND GAME RESERVES

Land Units: CH3, NG28, NG48, NG52, CT9

Comments:

In parts of Makgadikgadi Pans National Park the vegetation is unique and fragile (eg stands of *Hyphaene* palms). Artificial water supplies have been installed to simulate water in the Boteti river in an attempt to mitigate the effects of the game-proof fence that is to be built along the boundary of the Park and others may be developed in future. These are likely to attract elephant. Elephants have only been recorded (in recent times) in this area since 1999 and the riparian area suitable for elephants is very limited. This leads to high densities of elephants and thus excessive pressure on the vegetation.

In the southern part of Nxai Pan National Park the Baines Baobabs are important tourist attractions. Baobabs can be destroyed or made unsightly by elephants.

Elephant densities in the Chobe National Park are very high, especially during the dry season and their impacts on the vegetation have been considerable. In this area, however, the emphasis is on optimising tourism with elephants as a major attraction and the state of riparian woodland is not considered to be important.

Benign tourism is also the primary activity in Moremi Game Reserve where negative impacts on the vegetation from elephant have been observed. In this area management activities such as culling would be acceptable and habitat damage should be accepted as inevitable.

CH3 (Chobe National Park)	<p><i>Objective Two: Prevent, reduce or reverse unacceptable elephant-induced environmental changes</i></p> <p><i>Strategy no. 1</i></p> <p><i>Activities:</i></p> <p>Establish and maintain a comprehensive monitoring system particularly on erosion, the effects of elephant and smaller herbivores, biodiversity etc</p> <p>Badly eroded sites should be rehabilitated.</p> <p><i>Objective Eight: Acquire adequate information for DNWP to manage elephants effectively</i></p> <p><i>Strategies nos 2 and 5</i></p> <p><i>Activities:</i></p> <p>Establish elephant- proof exclosures to preserve diversity in selected sites.</p> <p>Encourage research by independent researchers</p>
NG28 (Moremi)	<p><i>Objective Two: Prevent, reduce or reverse unacceptable elephant-induced environmental changes</i></p> <p><i>Strategy no. 1</i></p> <p><i>Activities:</i></p> <p>Monitor vegetation change</p>
NG48 (Nxai)	<p><i>Objective Two: Prevent, reduce or reverse unacceptable elephant-induced environmental changes</i></p> <p><i>Strategy no. 2</i></p> <p><i>Activities:</i></p> <p>Protect Baines and other Baobabs by unobtrusive means (eg trenches filled with sharp rocks encircling the trees)</p>
NG48 & CT9 Makgadikgadi	<p><i>Objective Two: Prevent, reduce or reverse unacceptable elephant-induced environmental changes</i></p> <p><i>Strategy no. 2</i></p> <p><i>Activities:</i></p> <p>Reduce elephant densities if vegetation change exceeds LACs</p>

7.9 AGRICULTURAL AREAS AND UNDESIGNATED LAND

Land Units: CH5, CH10, NG7, NG8, NG9, NG10, NG11, NG13, NG35, NG36, NG37, NG38, CT7, CT19, CT21

All areas	<p><i>Objective One: Reduce HEC to acceptable levels</i> <i>Strategy no. 1</i> <i>Activities:</i> Multiple protective measures in place where HEC is high.</p> <p><i>Objective Two: Prevent, reduce or reverse unacceptable elephant-induced environmental changes</i> <i>Strategy no. 2</i> <i>Activities:</i> Use barriers and repellents to keep elephants away or reduce numbers as appropriate</p> <p><i>Objective Three: Maximise the utilisation of and benefits from elephant</i> <i>Strategies nos 2 and 3</i> <i>Activities:</i> Encourage the utilization of elephants by tourism and hunting where circumstances are appropriate (attractive scenery, other wildlife, adequate numbers for sustainable off-take etc)</p>
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7.10 GENERAL ACTIVITIES

Objectives 4 to 9 are relevant to the whole country and should be addressed by Government activities as described in Section 6 and summarised as:

Objective Four – protect elephants through law enforcement (anti-poaching)

Objective Five – meet international obligations (CITES and cross-border issues)

Objective Six – improve public awareness of management activities (consultation and public relations exercises)

Objective Seven – improve communication and coordination within and between stakeholders and role players

Objective Eight – acquire adequate information for DWNP to manage elephants effectively (research and monitoring)

Objective Nine – improve institutional and technical capacity for management (training, man-power and equipment)

Additional Activities:

NG35	Feasibility studies for an abattoir and tannery at Maun for processing elephant meat and skins required initially and potential markets for tinned meat identified.
All elephant population reduction	Contract expertise from the private sector to undertake management activities if such activities are to be undertaken.

All translocation	-	Contract private sector to capture and translocate with input from DWNP in terms of manpower for aerial support, veterinary assistance, logistics, observation etc.
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8 REFERENCES AND POLICIES

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5. DWNP, 2002. *Department of Wildlife and National Parks, Strategic plan, 2002-2006*. Ministry of Environment, Wildlife and Tourism.
6. Hoare, RE, 2001. *A Decision Support System for Managing Human-Elephant Conflict Situations in Africa*. African Elephant Specialist Group, SSC, IUCN.
7. Norwegian Forestry Society, 1992. *Chobe Forests Inventory and Management Plan*. Ministry of Agriculture, Division of Crop Production and Forestry, Government of Botswana.
8. Government of Botswana, 1986. *Wildlife Conservation Policy*. Government Paper No. 1 of 1986.
9. Government of Botswana, 2001. *Wildlife Conservation (hunting and licensing) regulations, 2001*. Statutory instrument No. 35 of 2001, Botswana Government gazette of 10.8.2001.
10. Government of Botswana, 1992. *Wildlife Conservation and National Parks*. Act No. 28 of 1992, Government Printer, Gaborone
11. Government of Botswana, 1980. *Forest*. Act No. 29 of 1980, Government Printer, Gaborone
12. Government of Botswana, 1990. *National policy on Natural Resources Conservation and development*. Botswana National Conservation Strategy, Government paper No. 1 of 1990 Government Printer, Gaborone
13. Government of Botswana. *Cruelty to Animals Act*. Chapter 37:02, Government Printer, Gaborone

APPENDIX I ELEPHANT MANAGEMENT GUIDELINES

Ethical guidelines for implementation of management activities are given below. Some Points are already in law. All should be used to govern standard practice in management.

1 TRANSLOCATION

No translocation should take place without a permit from DWNP

The release site should:

- Be an appropriate and acceptable destination
- Be within the former range of a genetically similar population to capture site
- No longer have the causes of the original reduction (eg, poaching) operating
- Have habitats which can sustain elephants
- Have capacity for post-release monitoring and protection

The elephants to be moved must be adult bulls and/or intact family units

The reduction of elephant numbers must be necessary as part of a management programme at the capture site

The capture must be carried out by an experienced professional team with proven success in translocation

2 CAPTIVE ANIMALS

Captive animals may only be held with a permit from DWNP and conform to current regulations¹³

There will be no import of domesticated elephants

Captive animals should carry a tattoo and microchip and be registered at the licensing office of DWNP

Progeny of captive animals shall be declared, registered and treated as captive animals

Animals should be held in acceptable standards of captivity, and subjected to humane treatment.

Captive elephants should remain out of close contact with wild elephants

The cost of recovering escaped animals and making good the damages caused, must be borne by the owner

3 RELEASE OF CAPTIVE ANIMALS INTO THE WILD

No elephant may be released without a permit from the Director of Wildlife and National Parks

Elephants originating from areas with different genetic stocks and elephants habituated to humans will not be released into the wild

4 CULLING AND CROPPING

No culling or cropping should be done without a permit from the Director of Wildlife and National Parks

Culling should only be carried out under an approved population reduction programme and cropping under a sustainable quota

Culling or cropping should only be carried out by a professional team with acknowledged experience in culling

Killing should be done by shooting

Only entire family groups, selected at random, should be shot

No animals may be shot within sight of a tourist route or at a water point or within 10 km of a tourist facility

Offal may be left for scavengers; bones should be removed from the cull site

All products should be fully utilised

All necessary data, as determined by DWNP, should be recorded from each carcass - DWNP will analyse and archive such data

All photography, filming and publicity related to culling or cropping will be under the control of DWNP

5 SAFARI HUNTING

A Professional hunter will be in attendance

Hunting practice will be according to ethical standards of the relevant Hunters' Association

A DWNP staff member will be in attendance

All necessary data, as determined by DWNP, should be recorded from each carcass - DWNP will archive copies of such data

6 CITIZEN HUNTING

This will be under a permit from DWNP. The total number of permits awarded will not exceed the quota

A DWNP staff member will be in attendance

All necessary data, as determined by DWNP, should be recorded from each carcass - DWNP will archive copies of the data

APPENDIX II: INSTITUTIONAL ARRANGEMENTS

1 CONSERVATION AGENCIES

Responsibility for natural resources and conservation areas falls under several Departments now under the Ministry of Environment, Wildlife and Tourism: the Department of Wildlife and National Parks (DWNP) is concerned with the management and conservation of wildlife throughout the country and the environment within protected areas; forest areas are administered by the Department of Forestry; the conservation and management of plants falls under the Department of Forestry although the conservation and management of vegetation within Parks and Game Reserves is the responsibility of the DWNP; the Department of Tourism is responsible for promotion of tourism. The National Conservation Strategy (Coordinating) Agency, which deals with environmental health and renewable resources, is under the Ministry of Environment and Tourism.

The DWNP, which has the greatest responsibilities under the plan, has those responsibilities distributed among senior staff, as follows:

OFFICER/UNIT	RESPONSIBILITY
DWNP	
DIRECTOR	Cross Border Management Liaison Committee Communication with other agencies CITES Liaison
MANAGEMENT & UTILISATION	
ASSISTANT DIRECTOR	Anti-poaching Investigations BDF Liaison Penalties CITES Management Authority Fence Construction
Intelligence Unit	Intelligence Networks
Snr Wildlife Officer - Problem Animal Control	HEC Database Community PAC Training
Snr Wildlife Officer – Licensing	CITES desk officer License Returns International Public Awareness
Wildlife Officer – Chobe	MIKE National Coordination
Head Anti-poaching Unit – Kasane	MIKE Site Coordination
PARKS	
Assistant Director	Tourist Booking System DWNP Website
EXTENSION & OUTREACH	
Assistant Director	Communication with conservation organizations Community Consultation Public Awareness Extension

OFFICER/UNIT	RESPONSIBILITY
RESEARCH	
Principal Wildlife Biologist	Culling monitoring Vegetation monitoring CITES Scientific Authority (with DD) Elephant monitoring
MANAGEMENT TEAM	
(Director, DD, PWB, AD – M&U, AD – Parks, SWO – Licensing)	Adaptive Management Process Cropping Culling Hunting Quotas Permits, Tuli Block
OTHER	
Permanent Secretary	External (independent) research permits
Police	Prosecutions
DAHP	Fence Maintenance
Water Affairs	Water points, Communal Areas
ARB	Chobe Fire Management
Forestry	Fire management, Forest Areas
NCS	Standards & protocols for biodiversity assessment
Private Sector Land Owners	Northern Tuli Game Reserve management

2 LEGISLATION

In the Wildlife Conservation and National Parks Act (No. 28 of 1992), the elephant is classified as a “partially protected animal”. Under this regulation it is legal to capture or hunt elephant outside national parks or game reserves “under and in accordance with the terms and conditions of a licence or permit” issued by the Department of Wildlife & National Parks and within the set quota. Anyone caught hunting or capturing an elephant without a licence is liable to a fine of P50000 and to imprisonment for 10 years. However, it is not illegal to kill an elephant that has damaged property or is threatening to damage property but the incident has to be reported within seven days and the meat, tusks and other products become the property of the Government.

Elephant are also specified as “dangerous animals” in the Act. It is not an offence to kill a dangerous animal in a national park or elsewhere in defence of human life or to prevent injury to a human. The owners of game farms or ranches are expected to prevent the escape of dangerous animals from their land.

3 CITES

The Government of Botswana is a signatory to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Under this convention, species listed on Appendix I are those that are “threatened with extinction which are or may be affected by trade” - no international trade in their products is permitted; species listed on Appendix II are “.. although not necessarily currently threatened with extinction, may become so unless trade is subject to strict regulation” - they may be traded internationally under a CITES - regulated permit system. African elephants were on appendix II from 1977. Some states, however, believed that the African elephant was threatened with extinction by the ivory trade and it was placed on Appendix I at the 7th Conference of the Parties to CITES in 1989. Southern African countries, including Botswana, took out reservations which would have enabled them to continue trading, as they considered that their populations were not endangered. Of importing countries only China and UK (on behalf of Hong Kong) took out reservations and these were subsequently withdrawn, effectively ending the legal trade in ivory. A proposal to down-list the elephant populations of Botswana, Namibia and Zimbabwe to Appendix II was finally accepted at the 10th Conference of the Parties to CITES in 1997. Trade was, however, to be limited to a one-off sale to Japan if certain conditions were met. While elephant hides can now be traded, ivory sales remain under the same restrictions.