MANAGING

SAFARI

HUNTING

WILDLIFE MANAGEMENT SERIES

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SAFARI

HUNTING

CONTENTS

What is safari hunting?

A safari hunt is a journey undertaken by someone as a leisure or holiday activity in order to hunt animals for recreation. This type of hunting is also called trophy hunting because the hunter wishes to shoot an animal with good size horns or above average tusks taken from a mature elephant. The hunter will keep these as his 'trophies.'

**Sources of income to the CAMPFIRE Programme
(1989 - 1996)**

Hides and Ivory (0.96%)

Tourism (1.76%)

Other (4.73%)
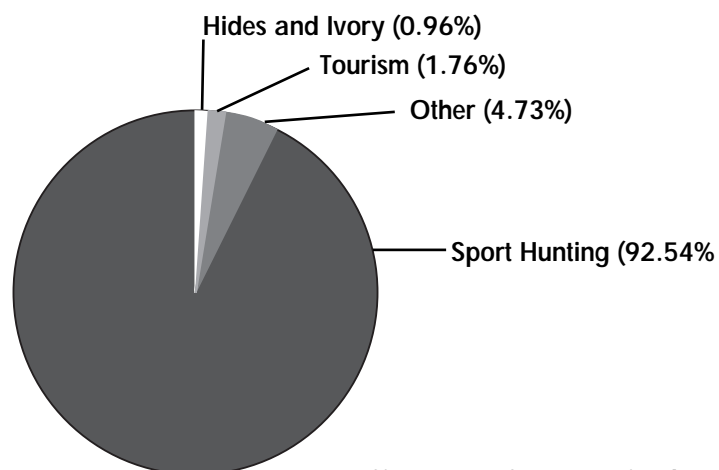
Sport Hunting (92.54%

Since 1989 Sport Hunting has provided more than 90% of all CAMPFIRE revenue

Why is safari hunting important for Councils?

Safari hunting is just one of the many ways in which Rural District Councils (RDCs) with Appropriate Authority can earn money from their wildlife. But it is the most important.

Because most money is earned from safari hunting, RDCs must manage this activity very carefully. They must have in place an efficient management system which ensures that safari hunting is accountable and sustainable in their area.

Accountable means that those people charged with the responsibility of managing and administering safari hunting do so in an open and transparent manner. This means making sure that all the members of the community who are beneficiaries are aware of the actions managers are taking and the reasons for doing so.

Sustainable means that our actions do not result in the decline of wildlife in the area. Specifically it means that the quality and quantity of sport hunted trophies does not decrease over time.

What management activities should a council monitor?

Managing safari hunting is one of a 'package' of management activities which councils need to introduce. It complements activities such as problem animal management, quota setting and marketing. Details of these management activities can be found in other booklets published by WWF.

How does safari hunting fit in with other council plans?

Wildlife resources should be used according to an overall Council development plan indicating how all land in the district will be zoned. This involves RDCs in establishing a policy which sets out the aims and objectives for wildlife in their area. Based on this, councils can decide how they wish to manage their safari hunting.

What management is necessary for safari hunting?

'Management' means taking some kind of action. This can be done on a daily, weekly, monthly or annual basis. The action councils must take requires them to monitor and evaluate :

- ecological changes (how many animals do we have?)
- technical issues (is this fence doing its job?)
- administrative arrangements (are all the hunt return forms in for the year?)
- financial collections and disbursements (how much money have we made from hunting and for what purpose has it been allocated?)

Ecological

Administrative

HUNT RETURN FORMS

Financial

Technical

MANAGEMENT

BANK
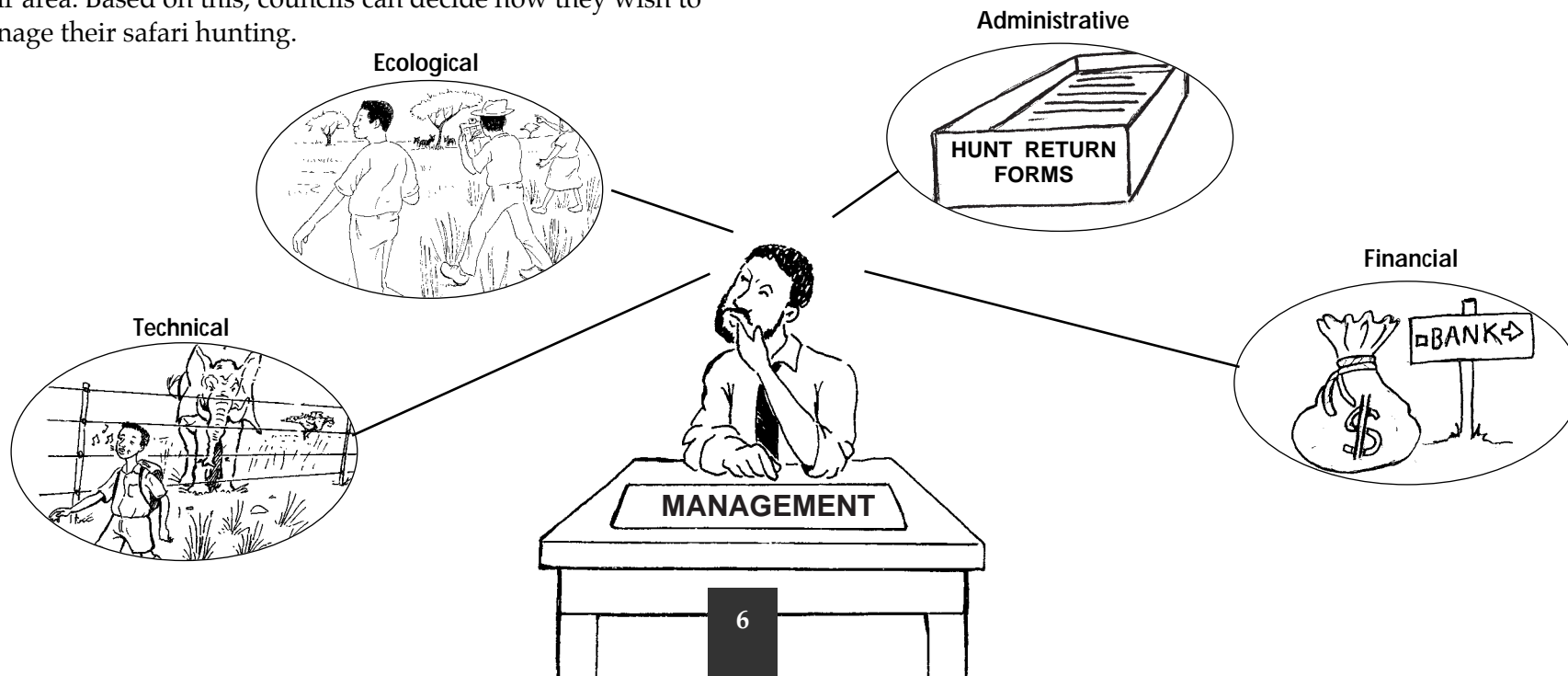
Monitoring is needed to find out if something is going the way we want it to. It allows us to compare what is actually happening with what we intended to happen. If they are not the same, then we need to take corrective action.

If even after making changes, the actual and intended goals do not seem to match then we may need to re-evaluate our original aims.

What is 'adaptive' management?
Adaptive management means learning by trial and error. All of us make many decisions and actions to try and achieve our objectives. Depending on their outcome, we may need to make different decisions if they do not give us the results we want.

Example
Objective: A soccer coach wants his team to score a lot of goals.
Action: He picks three strikers
Monitoring : The team scores 4 goals but also lets in 4 goals.
Adaptive management decision: Next match the coach replaces one striker with a defender.
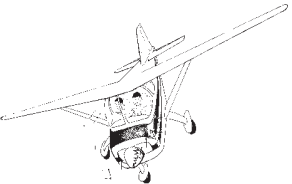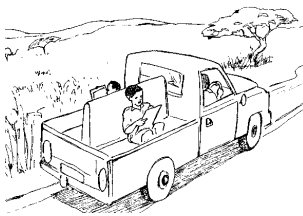
Because wildlife populations change annually, we need to find out if our management decisions about the wildlife population were correct and be prepared to change them according to new circumstances.

The Adaptive Management Process

monitor / count

↓

set quota

↓

harvest quota

↓

monitor/count

↓

check: numbers(trends),

trophy quality(trends),

hunting effort, etc.

↓

adjust quota if necessary

↓

restart process i.e. go back to monitor/count
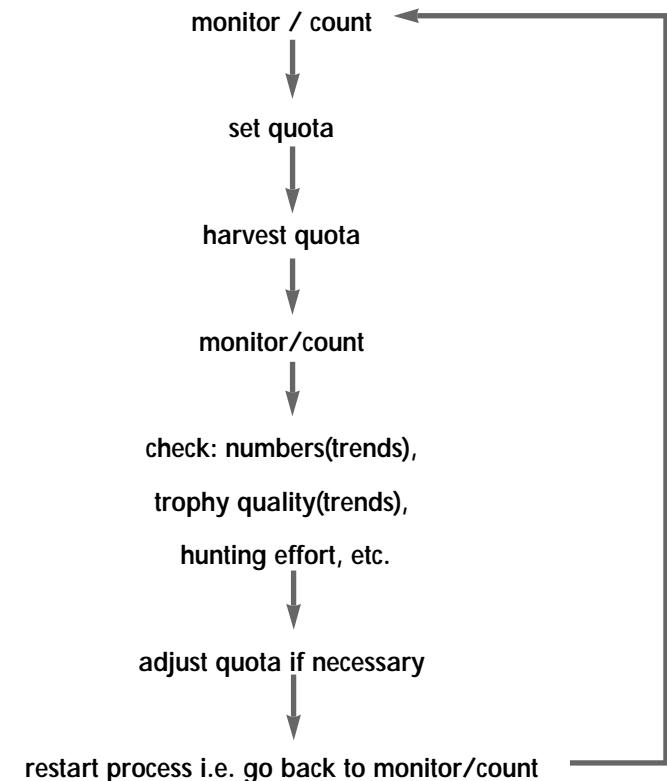
Comparison of three methods of estimating animal numbers

Method	Size of area	Cost ($/Km2 for a 10% sample)	Reliability	Expertise needed	Comment
Aerial	larger >1 000 Km^2	**Capital cost** High **Recurrent cost** US$67/100km^2	Provides good estimates for certain species ie elephant	Pilot and trained observers	Capital cost includes aircraft. Recurrent costs include fuel, insurance and maintenance of aircraft.
Road strip counts	100 - 1 000 Km^2	**Capital cost** Fairly high **Recurrent cost** US$12 /100km^2	Provides good estimate or index for most species	Driver and trained observers	Capital cost includes vehicle. Recurrent costs include fuel, maintenance, insurance and salaries.
Walked transects	100 - 500 Km^2	**Capital cost** Low **Recurrent cost** US$20/100km^2	Provides an index only, but good for most species	Trained observers	No capital costs. Recurrent costs are salaries for trained observers.

What do wildlife managers need to know?

Wildlife managers in RDCs need to know the trend in animal populations rather than the actual numbers. The trend will show if the population is increasing, decreasing or staying the same. Obviously if it is declining in numbers or trophy quality, wildlife managers need to take corrective decisions.

Trends can only be recognised over several years. So every year RDCs need to monitor and record estimates of wildlife in their district to build up accurate and reliable long term records.

How can RDCs monitor their wildlife?

RDCs do not need to know exactly how many animals they have. In any case this is often impossible to find out in practice. But they do need to know what sorts of animals they have and collect information which measures and indicates what is happening in general to animal populations. There are two main ways they can do this:

Direct methods

Counts of animals should be done the same way every year, at the same time of year and in the same place, so that by comparing 'each years' results, a trend can be established. The table opposite compares the characteristics of three commonly used methods.

Indirect methods

These methods give us an index or an indicator of how much wildlife exists. By collecting these indicators each year and then comparing them, trends can be detected.

Indirect methods include:
- the hunting success rate of safari operators
- encounter rates with different animals measured in relation to distance, time and/or area
- maps drawn by villagers showing the location and amount of wildlife and
- trophy quality.

Readers should study the 'Quota Setting Manual' and 'Animal Counting Methods' booklets in this series for more detailed descriptions of the methods of estimating animal populations.

Trophy quality is a very reliable way of indicating what is happening to a population. It is recorded by measuring the horn, body length or in the case of an elephant, the tusk weight of an animal each time one is killed.

Which methods of monitoring animal populations work best?
Councils need to decide which methods are most appropriate according to the cost and the expected benefit. However ground based methods should be used wherever possible and villagers should always be encouraged to participate in these exercises in order to build local expertise.

Trophy quality going up
- population increasing

Trophy quality staying same
- population stable

Trophy quality going down
- population decreasing
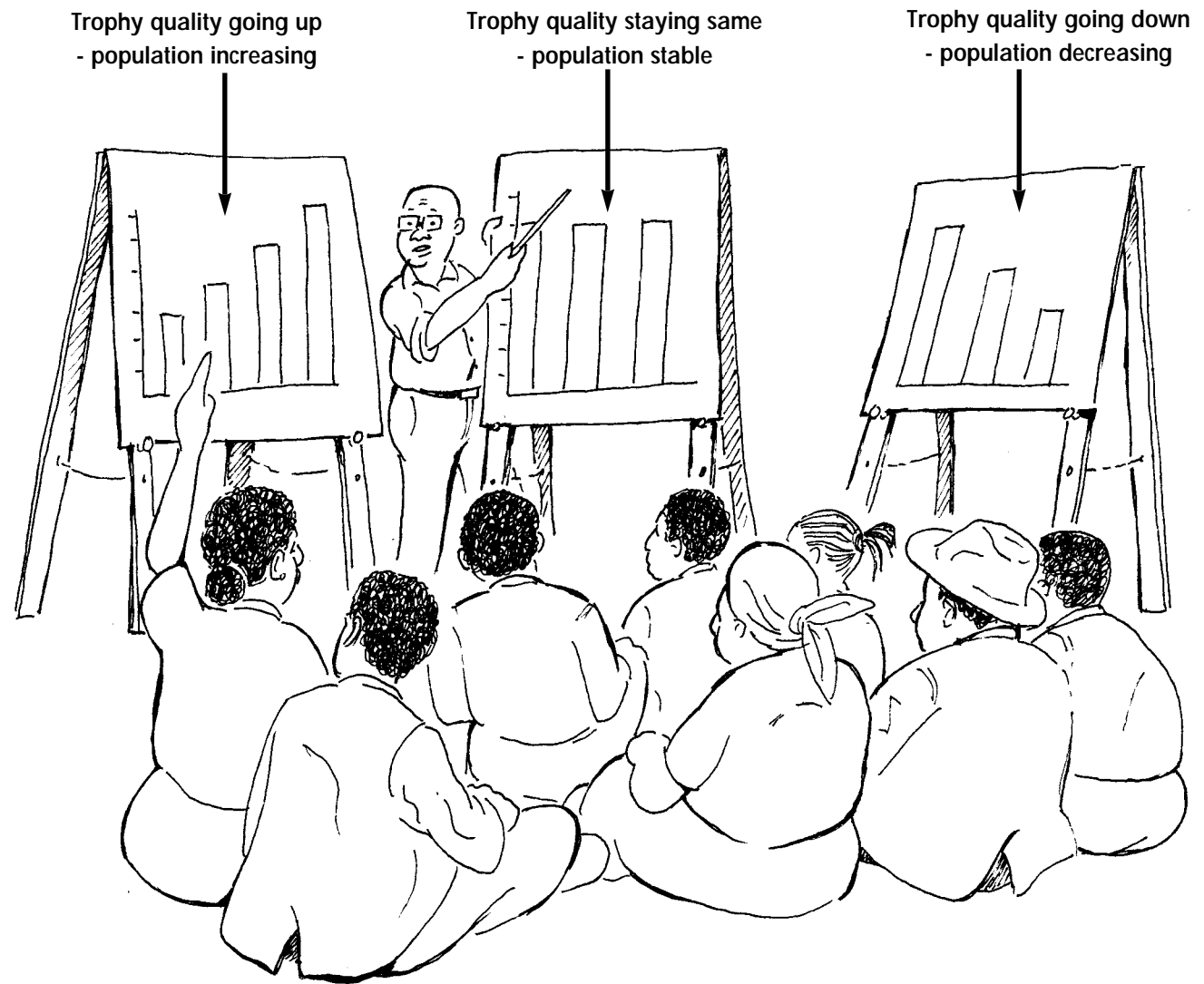
How can communities earn money?

The amount of money that can be earned from the consumptive use of wildlife depends on two factors:

- the type of consumptive use
- the quota or upper limit of the actual number of animals that can be legally and sustainably used

### What consumptive uses of wildlife are there?

- Sport hunting, which includes:
  - safari hunting by international clients
  - hunting by Zimbabweans
  - hunting by members of the local community
- Culling, which takes place when animals need to be killed or removed because of overstocking which would otherwise lead to the destruction of grazing or habitats.
- Cropping, which means killing animals for meat, hides and other products. Most communal lands do not have enough animals to harvest in this way
- Capture and translocation of live animals. Animals which are captured in the wild can be sold to other wildlife producers. However, animal capture usually requires outside expertise which may be costly.

Nyaminyami is one district where impala cropping for meat for local consumption has taken place successfully.

Producer communities should also think very carefully about both the welfare of the animals they want to sell and whether the offtake is sustainable, before they take a decision.

Captured Roan antelope in the Dande communal land were sold for a very high price.
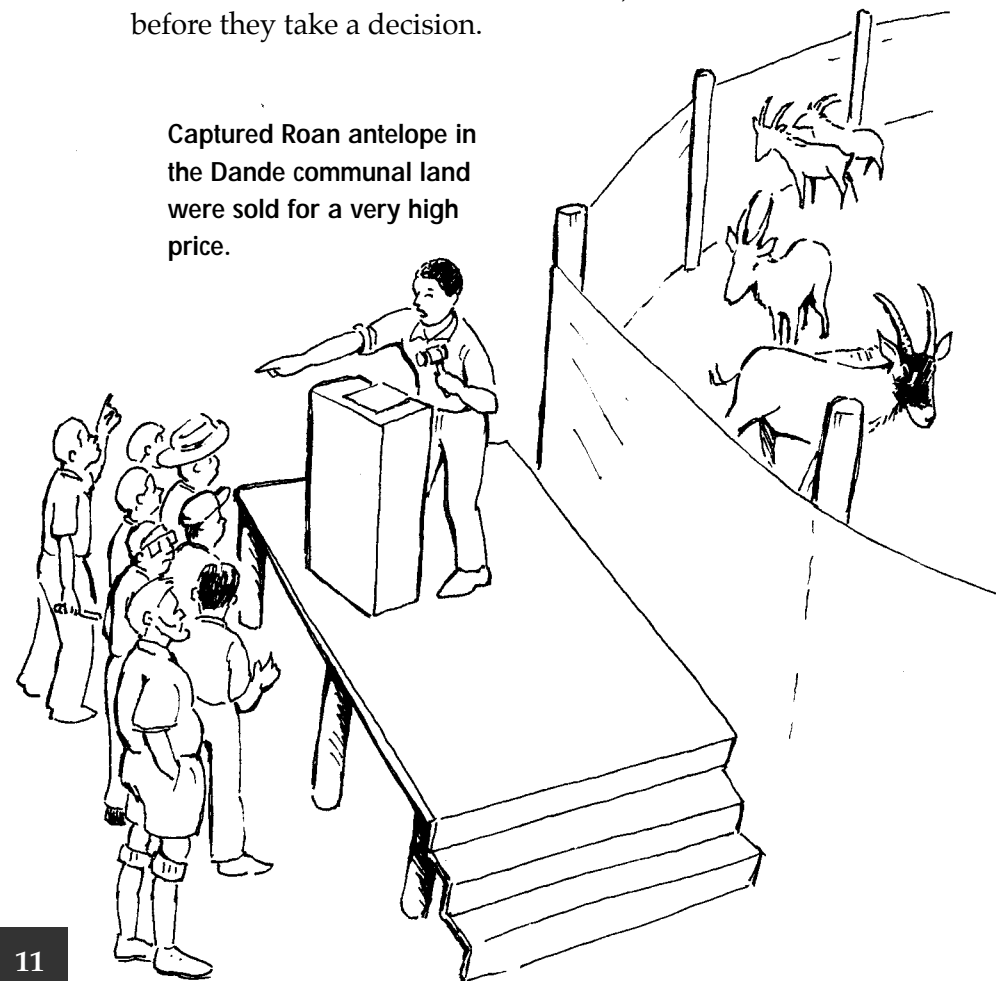
Why do we need a quota?

To begin with, as we may only have a rough idea of the wildlife population in a district, we need to be very cautious about the numbers of animals that are harvested. If we are not, then we might kill too many animals and destroy the resource that can provide a regular income.

Initially councils need to estimate the size of populations using some of the methods already suggested. Then they need to set a quota and decide how that quota will be used, for example for sport hunting or for local meat consumption.

Afterwards, councils need to monitor and record what is happening to the wildlife populations, before evaluating whether the quota was correct or not. If the data indicates the initial decision was sound, then they may repeat the quota the following year. If it appears that a mistake was made, then corrective action should be taken.

QUOTA SETTING MANUAL

WILDLIFE MANAGEMENT SERIES

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What should guide my system of administration?

Administration systems should be cost-effective. Otherwise the earnings from safari hunting will not sufficiently reward villagers who put up with the problems from wildlife. You should aim to:
- reduce bureaucracy, but make sure you have the information that tells you what is going on
- keep it simple
- monitor regularly
- constantly evaluate your data
- communicate with safari operators

What documentation is required to administer hunting?

Once a safari operator has been selected (see the 'Marketing Wildlife Leases' booklet for more about selection procedures), councils need to ensure that the process of hunting is administered correctly. This will involve them in developing:
- a contract or 'authority to hunt' which the safari operator and the RDC signs
- the terms and conditions which must be specified in the contract
- the permit to hunt which is also known as the 'hunt return form'.

What is the contract or 'authority to hunt'?

This document summarises the formal agreement between the RDC and the safari operator. It is a contract and is binding in law. It may take the form of a concession, lease, joint venture or any other arrangement which has been negotiated between the council and the operator. Such a document should include a covering letter indicating:
- the name of the safari operator
- the name and address of the company
- the quota and the terms and conditions which include the duration of the lease or contract and the financial arrangements made.

A sample letter is shown on page 14.

What terms and conditions should be included in the contract?

These should include the following details:
- The designated safari operator will complete a 'hunt return form' in respect of each client to be returned to the office of the xx ... Rural District Council at xx...within 30 days after the expiry of the permit.
- The holder of this letter of authority shall comply with the requirements of the Parks and Wild Life Act (1975) and regulations and with any relevant Council by-laws issued in respect of access to the wildlife of ..xx.. Communal Land.

- Concession/lease fee: (give details if and where appropriate)
- Trophy fee: (specify these if and where appropriate)
- Other financial arrangements: (eg. percentage of gross revenue or other relevant formula, nature of joint venture etc.)
- Disposal of carcasses: (stipulate - eg provision of meat to whom, by whom and when etc)
- Special conditions relating to hunting: No animals may be shot from a vehicle; use of aircraft for spotting; use of spotlights; hunting at night, etc. (specify requirements)
- Involvement of Safari Operator in PAC (if any involvement, specify details, or draw up separate terms and conditions).
- Where the sex of any animal has been specified on the permit, the opposite sex of the same species shall not be hunted instead.
- The definition of the area in which hunting is to take place.

Chilazi Rural District Council

Safari Hunters
PO Box 347
Harare

Authority to hunt and remove the animals listed on the quota attached from the area shown in red on the map, is granted to the above named company in terms of the Appropriate Authority status granted to Chilazi Rural District Council by the Minister of Environment and Tourism under Section 95, sub section 1 of the Parks and Wildlife Act (1975) and Regulations.

This authority is valid from:
1 January 1997 to 31 December 1997.

What is the 'hunt return form'?

This form is the most important administrative and monitoring instrument. Its regular completion, submission and evaluation will give you extremely important biological, financial and economic information.

This data is needed not only by councils but also by Wards, Vidcos, the Campfire Association, the Department of National Parks & Wild Life Management and safari operators so that a healthy and efficient safari hunting industry develops within CAMPFIRE.

The CAMPFIRE Association 'hunt return form' should be completed by the safari operator for each of his clients. The 'hunt return form' records the following information for each animal shot:

- Ward/Vidco
- Grid reference
- Date shot
- Whether killed or wounded
- Trophy size
- Sex: male or female
- Trophy fees paid to RDC:Z$/US$
- No. of hunter days
- No. of guest days (non-hunting clients)
- Daily rates for hunter and/or guests
- NP9 value
- Percentage of gross revenue paid to RDC
- Actual revenue paid to RDC

The 'hunt return form' is signed by the Client, the Professional Hunter conducting the hunt and the Appropriate Authority ie the RDC. A sample copy of the 'hunt return form' currently in use, and provided by the CAMPFIRE Association, is attached as an appendix to this booklet. Please note that this document is serially numbered and booklets of blank returns should be kept in a safe and secure place. However, the CAMPFIRE Association 'hunt return form' might be replaced by the new consolidated NP9 form in 1999. Until this happens districts should continue to use the CAMPFIRE Association 'hunt return form'

What financial procedures are necessary for the administration of safari hunting?

The financial administration of safari hunting and other wildlife activities is determined by:

- the value of the activities: for example in the financial year 1996/97 Nyaminyami RDC earned more than Z$5 million from wildlife compared with just over Z$44,000 for Mudzi RDC.
- the type of contract: different types of contracts will need slightly different financial administration systems.
- the overall financial administration system of each rural district council. This financial administration system is guided by the Rural District Councils Act and the Procedures laid out in the Policies and Procedures Manual produced by MLGNH.

Description	Date	Total	Trophy Fees	Bed levies	Meat sales
Receipt #002(Safari Hunters)	31/08/98	Z$236,310	Z$236,310		
Receipt #01 (Big 5 Hotel)		Z$10,000		Z$10,000	

CHILAZI RDC: WILDLIFE MANAGEMENT ACCOUNT : INCOME/ EXPENSES

The information that follows should therefore be used as a guide and may need to be adapted to individual RDC requirements. The main instrument used to monitor the hunting is the 'CAMPFIRE Association Hunt Return Form'.

How do I deposit wildlife revenues?

Revenue received from wildlife operations should be deposited in a wildlife management account. When revenues are accruing rapidly, these should be transferred from current accounts to other, higher interest bearing accounts.

In principle Rural District Councils should not subsidise one activity with revenue from another. If wildlife revenues are used to make loans to other activities within the council, the money should be re-paid with interest. Market rates of interest should always be used in order to compensate the wildlife account for the loss of earnings during the period the money was 'on loan' out of the account.

How should I classify wildlife revenue?

Revenue should be classified according to its source in the ledger. In some districts there are many sources of wildlife revenue including hunting, tourism and the sale of hides. The source of the revenue should be recorded in the ledger along with the name of the debtor and the receipt number.

Why should a hunting schedule be maintained and used?

In order for an RDC and producer ward to monitor sport hunting activities, it is useful to request the operator(s) to provide a schedule of their activities. The schedule should contain the following information:

- the name of the client and professional hunter
- the proposed 'bag' of animals and
- the time of the hunt.

Keeping a hunting schedule allows the council to ensure that there are no omissions and that the operator does not exceed the quota. The Schedule of Hunts can also be expanded to include a hunt return form number and receipt number as a cross-check on the debtors ledger.

CHILAZI RURAL DISTRICT COUNCIL: SCHEDULE FOR SAFARI HUNTERS			
Name of Client	Name of Professional hunter	Proposed bag	Time of Hunt
A. Donald	T. Mbangwa	elephant, buffalo, leopard	14/07/98 - 28/07/98

CHILAZI RDC: DEBTORS LEDGER FOR SAFARI HUNTERS				
Document	Date	Debit	Credit	Total
HRF #126	28/07/98	$125,000		$125,000
HRF #127	6/08/98	$45,750		$170,750
HRF # 128	13/08/98	$65,560		$236,310
Receipt #002 (Safari Hunters)	31/08/98		$236,310	0

Note: Entries on the debtors register should be in order of the hunt return form.

How should I maintain and use a debtors ledger?

If revenue is only accounted for when it is received, it is difficult for an RDC to know how much money the council is owed from wildlife activities. A better practice is for councils to consider the hunt return form as if it was a sales invoice for that hunt. At the end of a hunt when the RDC receives its copy of the hunt return form, this form should be checked for accuracy and then immediately entered into the debtors register. The contract between the operator and the council should specify the maximum period allowed between the end of a hunt and payment for that hunt. This should not exceed 30 days. The debtors ledger should be updated regularly and market rates of interest charged to the safari operator on overdue payments.

Why is exchange rate information needed?

Many of the contracts which rural district councils have with safari operators are specified in foreign currency. Administrators need to have access to reliable exchange rates. The Reserve Bank of Zimbabwe publishes a monthly bulletin which includes exchange rates for all major currencies. Another source of exchange rates is from commercial banks.
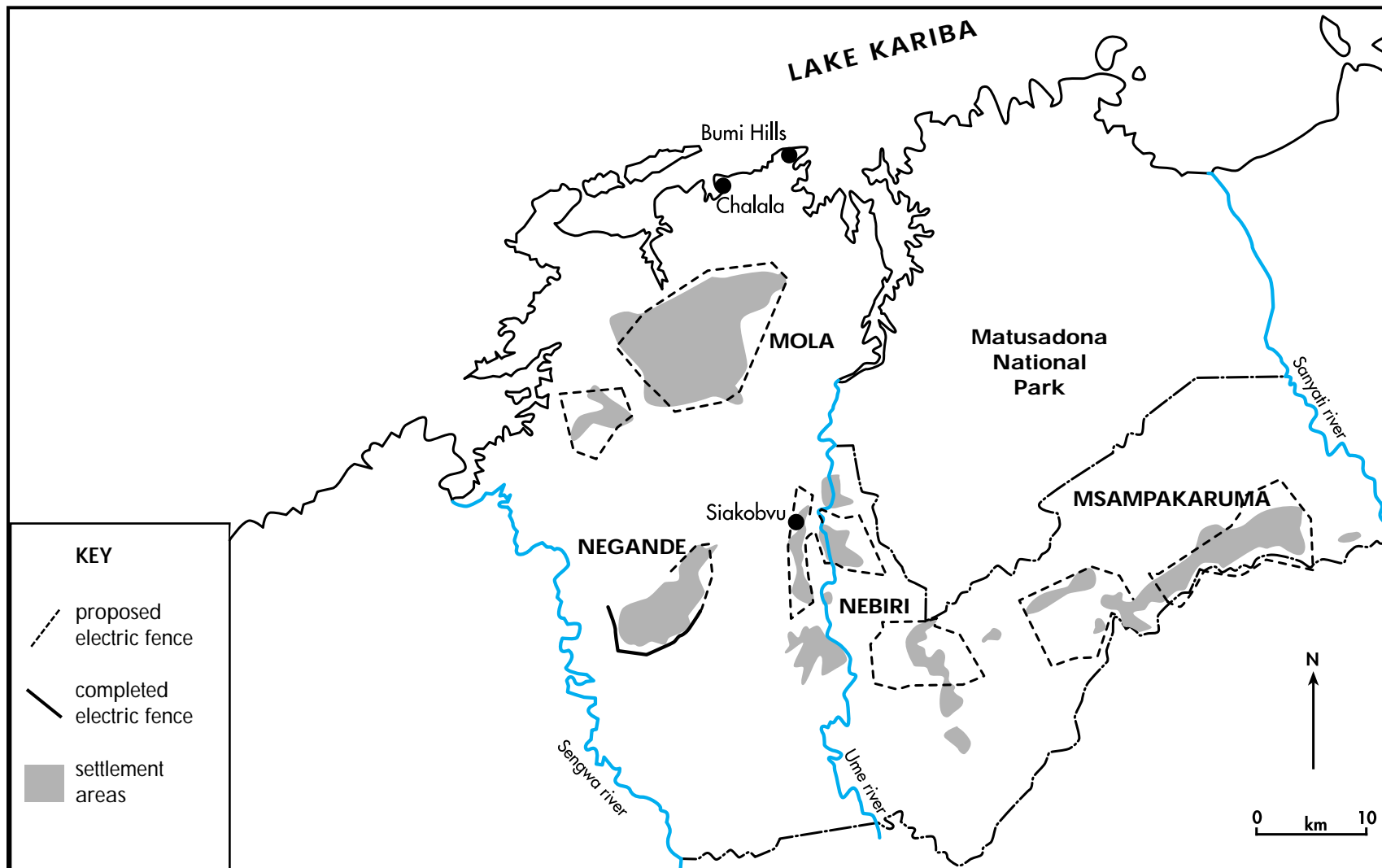
Some banks provide daily exchange rates to their clients. Rural district councils should investigate obtaining regular updates of changes in exchange rates from the these institutions.

Why do I need to keep RDC accounts up-to-date?

Although the financial administration of many councils is often constrained by poor equipment and over-burdened staff, financial administration depends on accurate and timely information. If RDCs do not keep accurate expenditures, it will cost both the RDCs and producer wards money. The 'Finance Executive Officer' should do monthly trial balances of wildlife revenues and expenses taken from the ledgers to ensure that the accounts balance.

Within the RDC, either the wildlife office or the finance office, must be responsible for checking that the totals provided on the hunt return form are correct, that the fees paid are in accordance with the contract and that correct exchange rates have been used. This is also an opportunity to check the biological information provided by the professional hunter. Incomplete forms should be immediately returned to the safari operator for completion.

The Omay Communal Land, Nyaminyami District, Kariba showing settled areas in Mola, Negande, Nebiri and Masampakaruma chieftainships

LAKE KARIBA

Bumi Hills

Chalala

MOLA

Matusadona
National
Park

Sanyati river

MSAMPAKARUMA

Siakobvu

NEGANDE

NEBIRI

Sengwa river

Ume river

KEY

proposed
electric fence

completed
electric fence

settlement
areas

N

0   km   10

How useful is hunt data ?
Hunt data can be used to:
- discover when hunting takes place
- find out where hunt clients come from
- record changes in trophy sizes
- record the revenue from hunting
- distribute the revenue earned amongst producer communities
- prepare a hunting performance summary

All the data in the following examples have been taken from the 1989-1992 records of Nyaminyami RDC hunt returns. All RDCs involved in safari hunting should analyse their own records in a similar way.

Why do I need to know when hunting takes place?
It may sound obvious that by examining the records we can see that most hunting takes place in the dry season with a peak hunting period in July and August. However RDCs can use the chart to plan activities including cropping programmes, non-consumptive tourism and agricultural activities which either complement or conflict with safari hunting.

However if we compare the frequency of distribution of sport hunting activity throughout the year with that of PAC activity, we discover that the March/April peak in PAC activity does not coincide with the peak period for sport hunting which occurs in July and August. This tells us why it may not be easy for a safari operator to use a client to hunt a PAC elephant. If he does, it may involve a reduction in trophy and daily rate fees to him. On the other hand, extra revenue is earned by the community from that elephant.
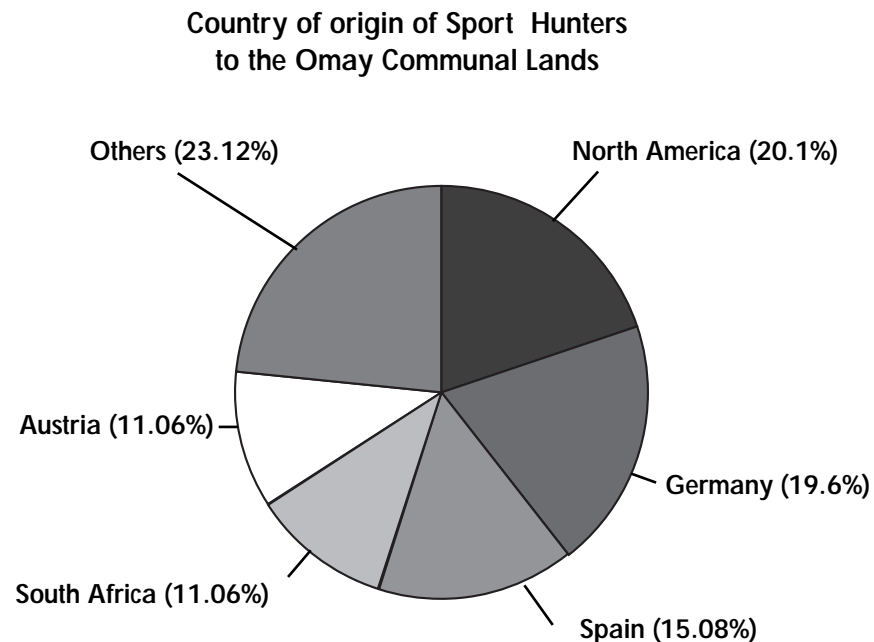
The number of days of sport hunting by month and year

1989 1990 1991
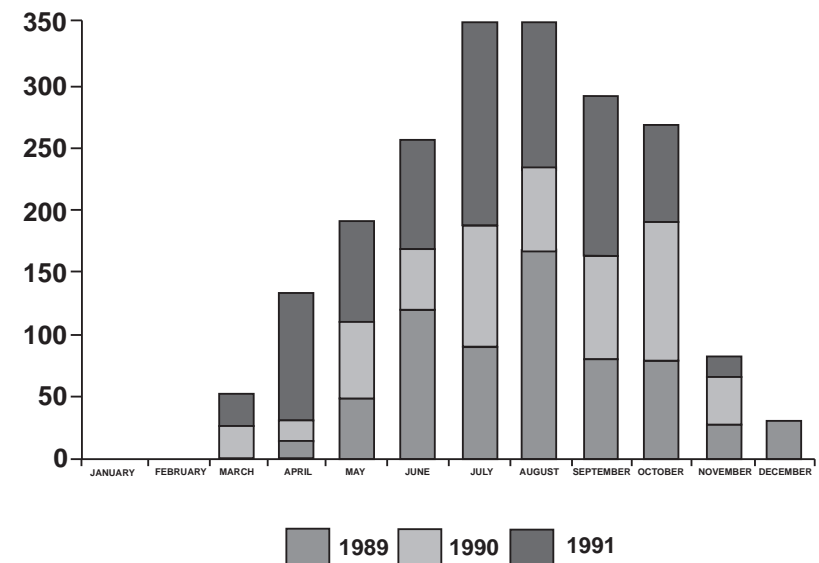
How does it help to know where clients come from?

From the hunt return forms, it was discovered that in Omay in the three years 1989-91 there had been:

- 200 hunters, spending a total of 1 587 hunter days in the area or an average of 529 hunter days each year.
- hunters from 17 different countries with over 50% coming from N.America, Germany and Spain.

Country of origin of Sport Hunters to the Omay Communal Lands

- Others (23.12%)
- North America (20.1%)
- Germany (19.6%)
- Spain (15.08%)
- South Africa (11.06%)
- Austria (11.06%)

Knowing this, an RDC together with the resident safari operator can identify major markets or new markets to be targeted for safari hunting or other types of tourism.

3. How can I use trophy size data?

Good trophy quality and size is extremely important in order to attract high fee-paying hunting clients. Trophy sizes are measured in three ways according to the animal:

- for antelope and buffalo horn length is measured in inches or cm
- for carnivores the body length is measured in feet and inches or cm
- for elephant each tusk is weighed in kgs

For detailed information on measuring trophy sizes, readers should study the 'Quota Setting Manual' and 'District Toolbox.'

By comparing average trophy sizes over a number of years, councils and communities can see whether trophy sizes are increasing, decreasing or remaining about the same. The figures on the opposite page show the changes in trophy quality between 1989 and 1995 in the Omay Communal Land.
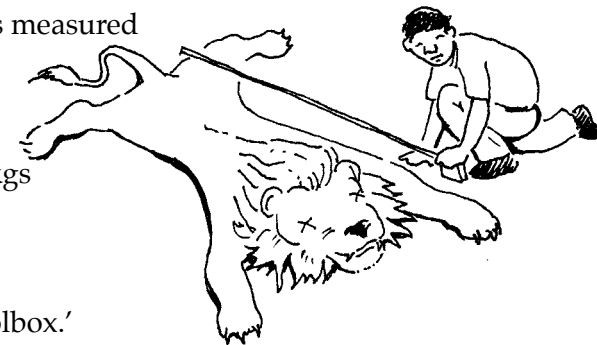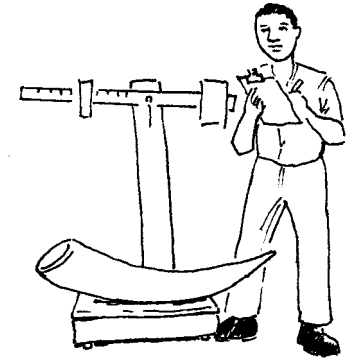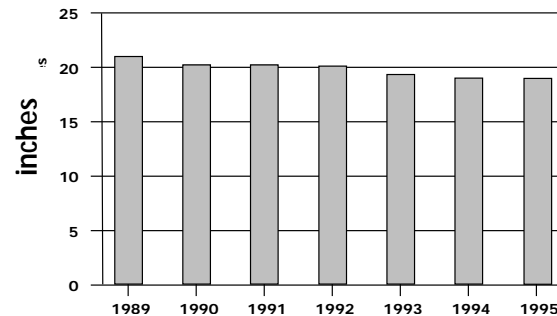
Trends in trophy quality for selected species in the Omay Communal Land from 1989 to 1995
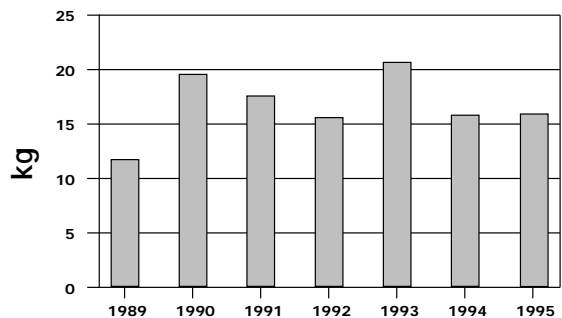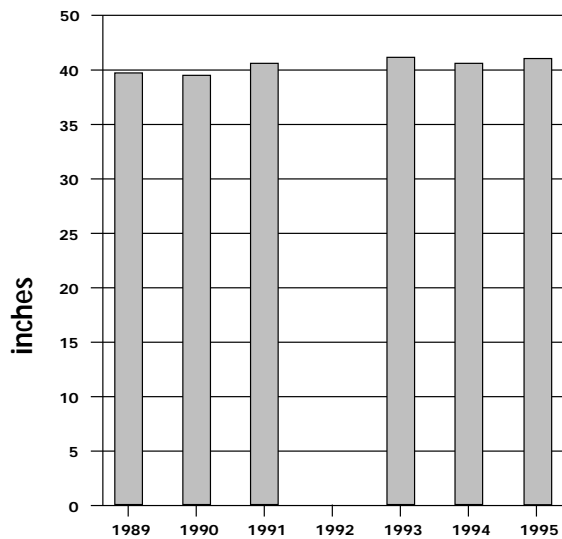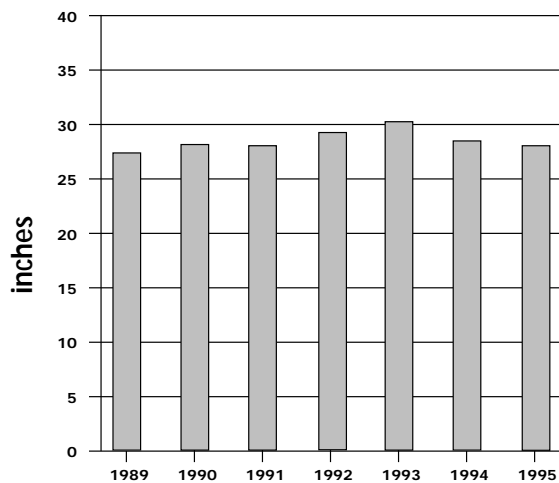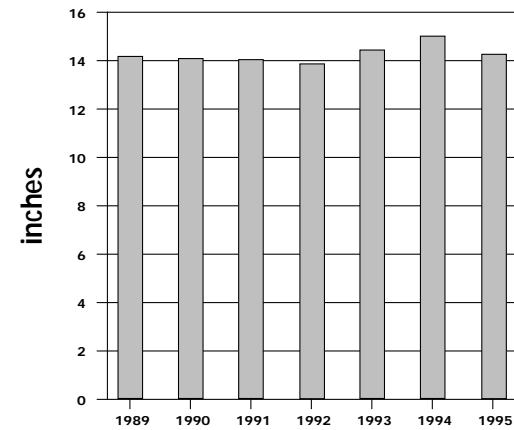

Elephant
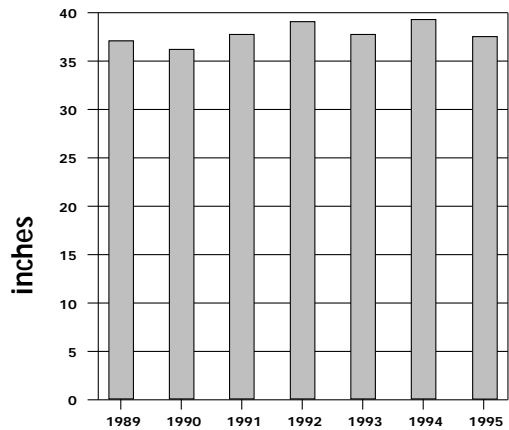
Buffalo

Impala

Sable

Waterbuck

Bushbuck

The data from Omay shows that:
- variable trophy quality for elephant with no defined trend
- trophy quality decreased for impala
- trophy quality remained stable for buffalo, bushbuck and waterbuck.
- trophy quality for sable increased slightly

RDCs would need to relate this to data from other methods of estimating populations and decide whether the quota should remain the same. More information about this is provided in the 'Quota Setting Manual' published by WWF.

How should I use data on hunting revenue?

RDCs will want to know what was actually earned and compare this to the total value of the quota. Details of how to calculate the efficiency of sport hunting are given in the 'Marketing Wildlife Leases' manual This information allows them to monitor the performance of the safari operator. It also allows RDCs to assess if they have realistically allocated animals to the different categories of use in order to get the best revenue returns.

How can hunting data help me distribute revenues accurately between producer communities?

From the hunting return forms, the six figure grid references of the kill sites can be plotted onto a large ordinance survey map of the district. This also shows us where most animals are being hunted in the district.

MOLA A

18%

MOLA B
29%

NEGANDE
8%

• **Kill sites in Omay Communal Land (1990)**
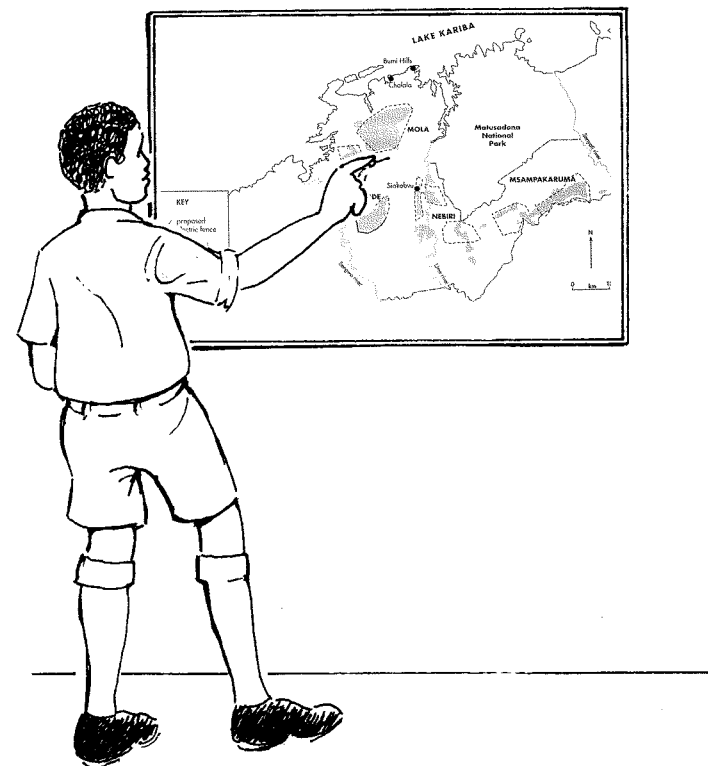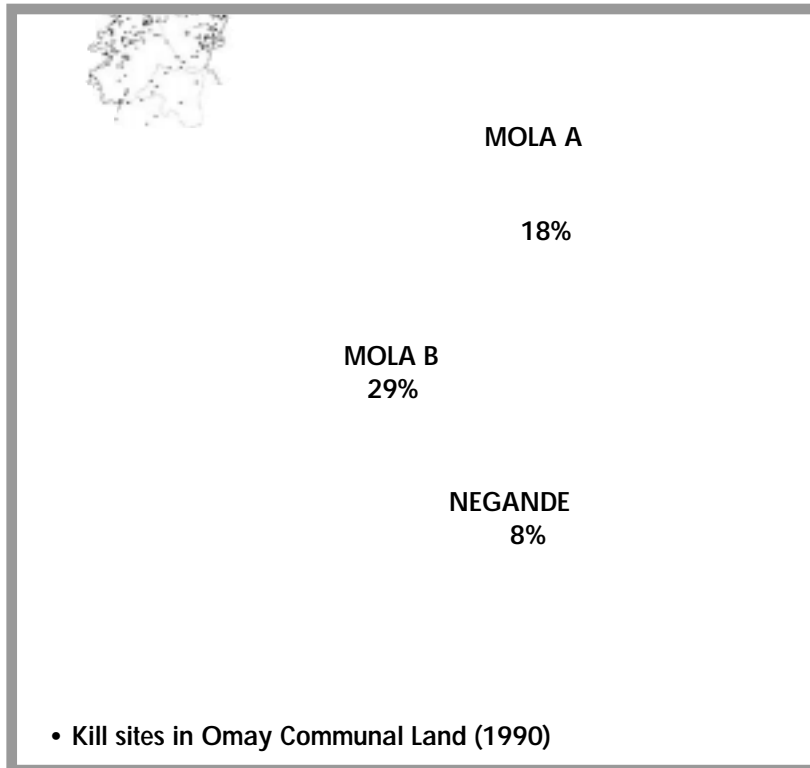
The Mola wards in Nyaminyami District, produced nearly 50% of the hunting. This is because they contain most of the wildlife as a result of being near Lake Kariba and having large areas of undisturbed wilderness.

When the ward boundaries are marked or super-imposed onto this map, we can see in which ward each kill was made. A list can then be made for each ward summarising how the trophy fees should be divided within the district.

How do I compile a hunting performance summary?
This record is a quick way of summarising the most important information. You can adapt it so that it acts as a ready reference for the information you need.

Total value of trophy and concession free ⟶	$ 402 778
Value realized in 1990 ⟶	$ 346 506
% Of total value realized ⟶	88%
Number of clients ⟶	56
Number of countries ⟶	13
% European countries ⟶	52
% USA clients ⟶	18
Average length of hunt ⟶	9 days
Average income per hunt ⟶	$ 6 188
Age of elephant ⟶	50% were between 35 and 48 years
Largest trophy ⟶	20 kg
Average buffalo ⟶	39 inches
Age of buffalo ⟶	51% were between 8 and 11 years

Hunting performance summary (Omay Communal Land 1990)

This record was compiled from 1990 data for Omay. It could be extended to provide a comparison over a number of years. Note that the age distribution of the elephant and buffalo are indicated. Determining the age of the shot trophy adds a further refinement to monitoring trophy quality which RDCs should adopt as time goes on and their experience develops. Knowing the age of the shot animal helps establish that only mature animals are being hunted. The above example confirms this has been the case in Omay for at least 50% of the animal shot. If you wish to have further advice on this technique please contact WWF.

Summary

- Safari hunting is not only the main wildlife management activity for many RDCs but also their major source of revenue.
- Accurate and efficient monitoring and administering of safari operations by councils is vital and will more than pay for itself in the long run.
- Through monitoring, RDCs will develop a greater understanding of safari hunting and begin to play a greater role in the country's wildlife industry.

This booklet is the fourth in a series of guides on Wildlife Management and examines in detail how to set up an efficient administration system for sport hunting in the communal lands. It provides background information and guidance to Rural District Councils and NGOs who wish to do this and should be read along with the other booklets in this series. These booklets are linked to training programmes being undertaken by members of the CAMPFIRE Collaborative Group.

Booklets in the Wildlife Management series include:

1. Problem Animal Reporting
2. Electric Fencing Projects
3. Marketing Wildlife
4. Managing Safari Hunting
5. Quota Setting Manual

WWF is a member of the Collaborative Group supporting the CAMPFIRE programme in Zimbabwe and has provided support and training to communities in the establishment of wildlife management systems.