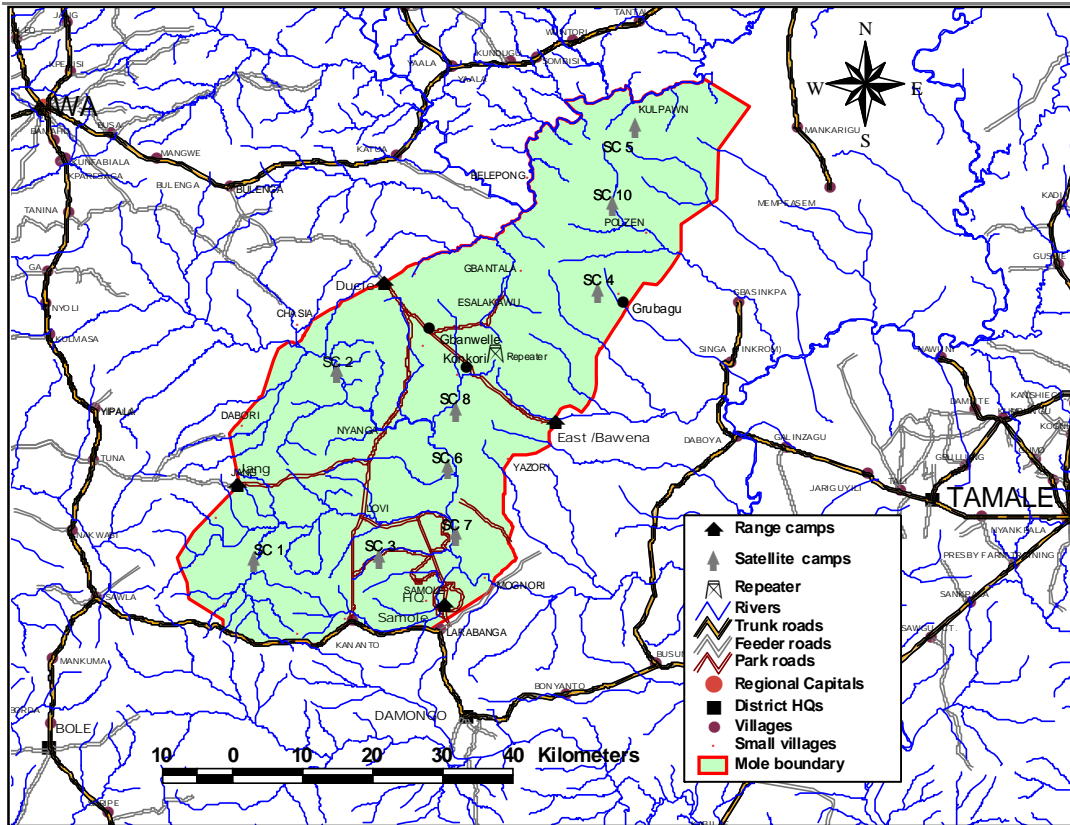


# MOLE NATIONAL PARK

Map :



Source: 2005-2010 management plan

Size of the PA: 457 700 ha

IUCN category: II

International label: none

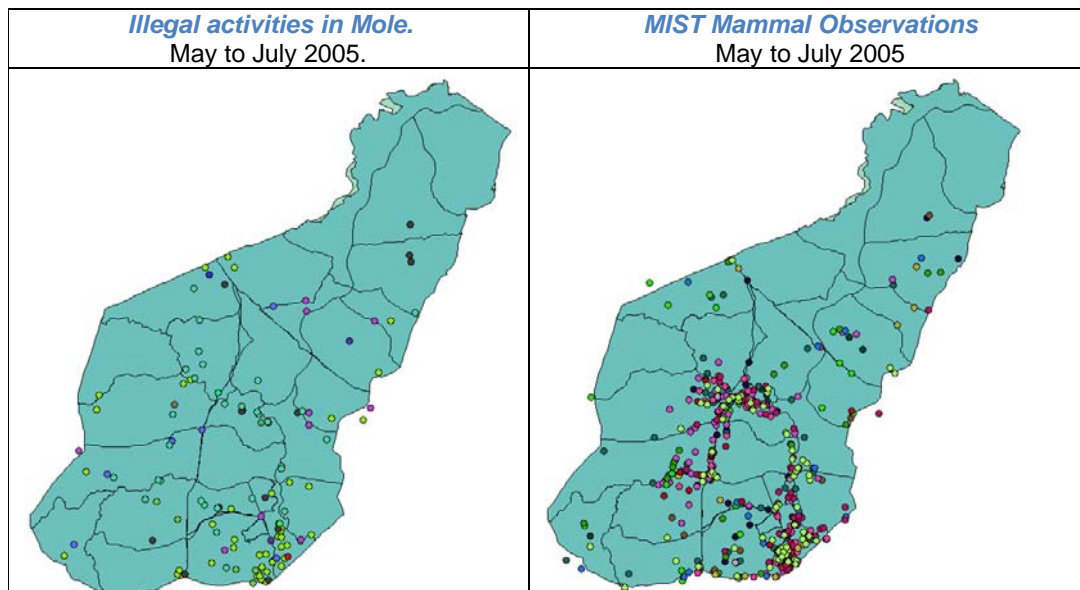
Protected area's values

| Type of values | Protected area's values   |
|----------------|---|
| Biodiversity   | <ul style="list-style-type: none"> <li>• Pristine vegetation typical of Guinea savanna ecosystem</li> <li>• Endemic and rare plants with limited distribution in Northern Ghana</li> <li>• Rare and endangered fauna and their habitats eg. Lion, elephant, roan antelope, etc</li> <li>• Presence of flora and fauna of conservation interest and their habitats</li> <li>• Typical Guinea savanna fauna and their habitats</li> </ul> |
| Landscape      | <ul style="list-style-type: none"> <li>• Escarpment running North-south of the park</li> <li>• Presence of natural springs and waterfalls</li> </ul>  |

|                   |  |
|-------------------|--|
| Cultural values   | <ul style="list-style-type: none"> <li>• Shrines and sacred groves in and around the park (Esalakawu)</li> <li>• Traditional architecture and lifestyle of communities</li> <li>• North-south slave route passing through the park</li> </ul>  |
| Economical values | <ul style="list-style-type: none"> <li>• Climate change mitigation and control at local, regional and global levels</li> <li>• Conservation of plants of economic value eg. Banatre, broom grass, medicinal plants, raffia, etc</li> <li>• Network of water bodies that drain the park and replenish White Volta ie. Lovi, Mole and Kulpawn</li> </ul> |

### Main pressures

- **Poaching** mainly focused on small antelopes and is performed by surrounding communities for provision of bush meat. 50% of the poaching activities are dedicated to bush meat commercialization.



Source: 2005-2010 management plan

We can see from the above maps that there appears to be the most poaching where there is most wildlife. However, this does not prove that there is no poaching elsewhere as these were the only areas that were patrolled.

- **Bush fires** are common and the PA is not shielded in any way by natural fire belts
- **River pollution** for fishing purposes
- **Grazing** of cattle within the PA

### Main threats

- A highway is planned to be built close to the park. It might increase the illegal access into the park for illegal activities.

## 1. Context : from where are we starting ?

### Legal status and date of establishment

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The PA is fully established since 1971 (LI 710 of wildlife reserve regulation). Nevertheless a project of enlargement of the PA area has been proposed (communities agreed on this project) but it is not validated yet.

**Land owner:**           **State**

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### Management institution

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Wildlife Division department of the Forestry Commission is responsible for the management of Mole national park (MNP).

### On-going projects

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There is no on-going project on Mole park anymore but several ones have been implemented in a recent past:

- From 2002 to 2006: Netherlands cooperation support with 5 million Euros, 7 years project focusing on management planning drafting and implementation.
- Starting in 2006: GEF project focusing on surveillance, infrastructures and community livelihood support.

The surrounding area of MNP also benefits from the activities of Arocha NGO (since 1999) which is working on CREMA creation and livelihood enhancing for the local populations.

### Neighboring stakeholders

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- Private sector:

There is no private enterprise located close to Mole.

- Communities:

33 villages are settled around Mole but human density is very low in this part of Ghana.

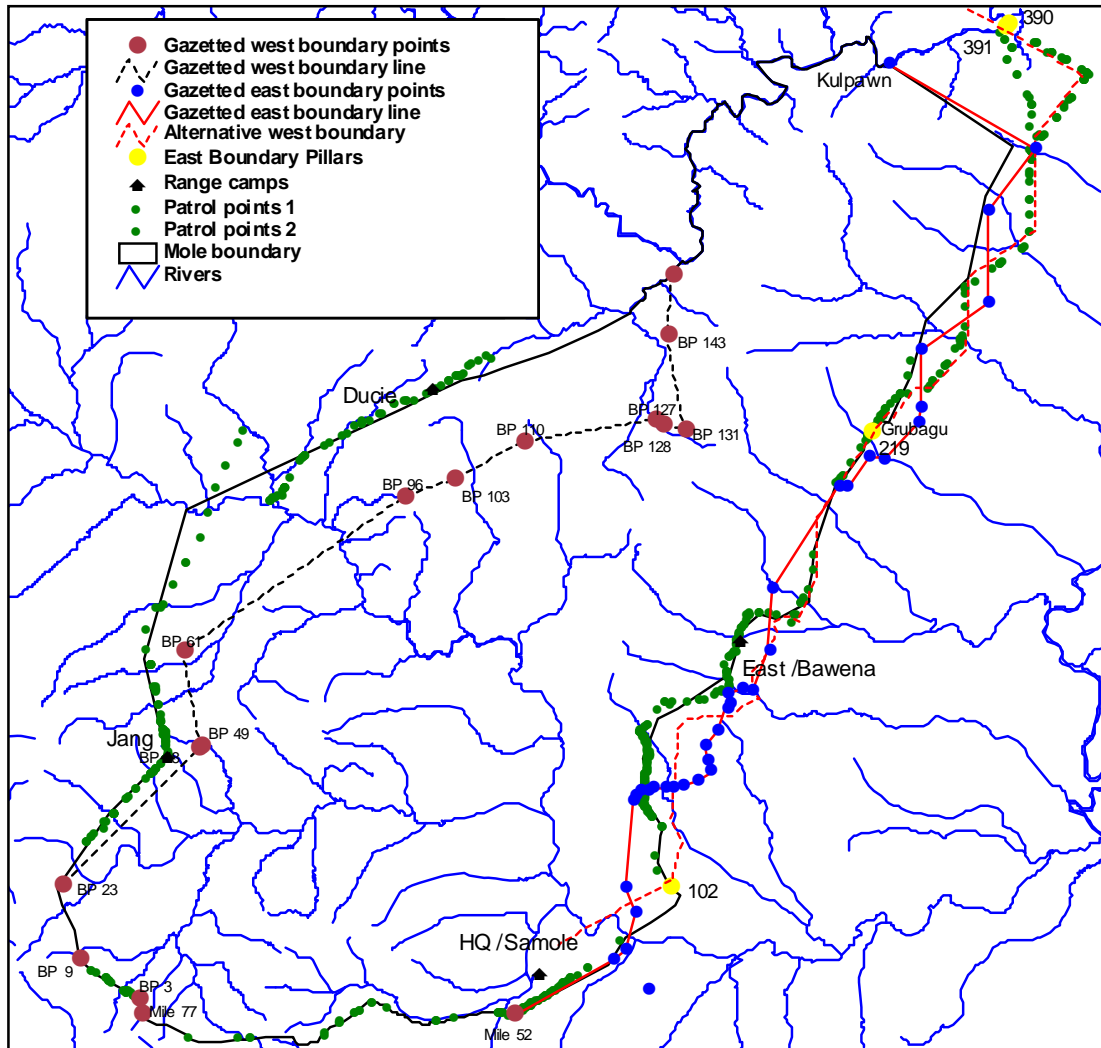
- Associations and NGOs:

Arocha NGO is supporting CREMAs development around Mole.

### Protected area boundary demarcation

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The Mole park boundary is gazetted in the Wildlife Reserves Regulations of 1971 and trees have been planted all around the PA. In a few places there has been some planting with *Khaya* trees, but they have not performed well. There have been disputes in the North-East corner with some communities in West Mamprusi district in the last few years and most of the pillars have been removed.



Source: 2005-2010 management plan

## Protected area regulation

Regulation is detailed in the wildlife regulation but it is sometimes outdated (especially regarding to the sanction rates that are too low to dissuade offenders).

This regulation specifies that hunting, animal or plant capture, fires, and pollution are prohibited in the PA.

## 2. Planning : where do we want to be how will we get there ?

### Management plan objectives

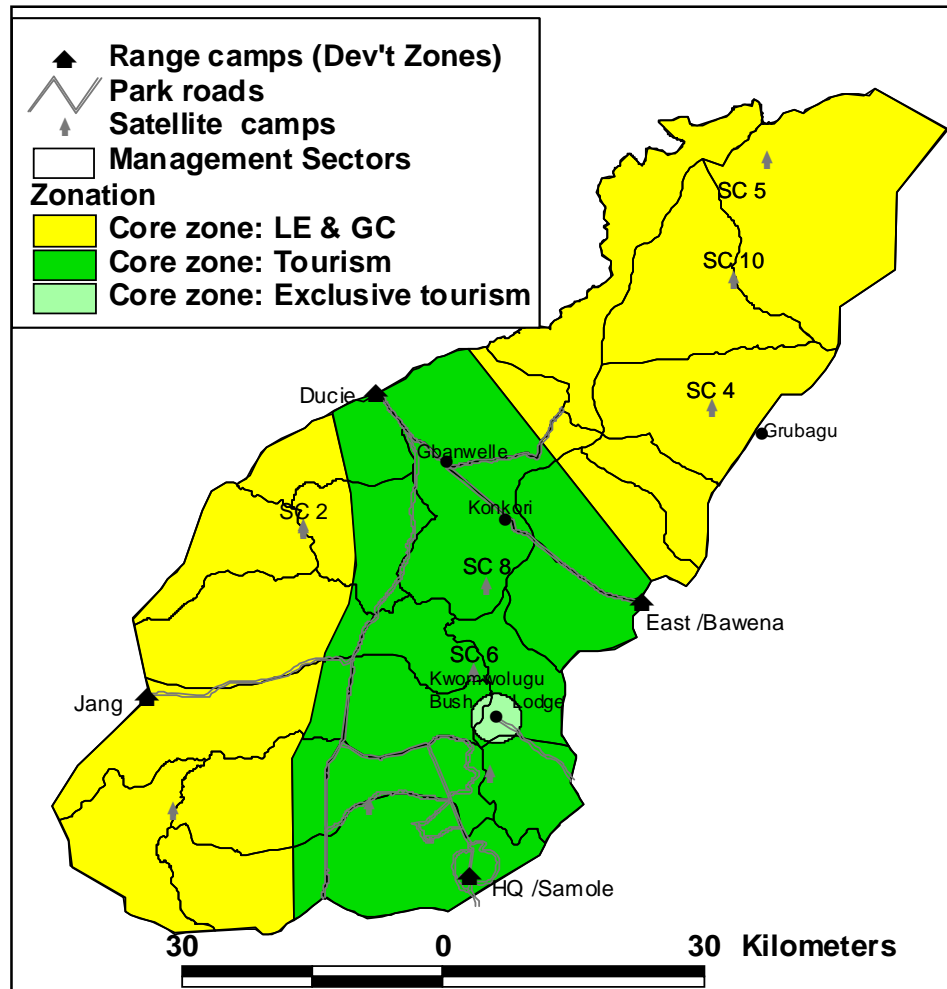
The previous 2005-2010 management plan detailed the vision of Mole Park:

“Mole National Park exists for the protection of the savanna biodiversity and the development of tourism“.

### Protected area design

The 2005-2010 management plan described almost the whole park as being regarded as a Core Zone in which the protection of wildlife is the most important characteristic. There is also some part used by tourists within this zone. It is hoped that if the LE&GC is successful,

the area which can be used for tourism will expand to cover more of the park.



Source: 2005-2010 management plan

Practically, there is not any internal zoning as no sustainable use of PA resource is allowed. Because of its accessibility, most of the tourism activities are occurring in the southern part of the PA. As there is no buffer zone between the park and the surrounding territories and as a road is bordering the park, many conflicts arise from local populations that are settled close to the PA because they use its land as cropland. Nevertheless some CREMAs have been created around Mole and can play the role of local buffer zones.

### Management plan

The previous management plan (2005-2010) and its related business plan have been drafted with the Dutch cooperation support. As financial support was available, most of the planned activities have been implemented. The new MP is currently being updated.

### Regular work plan

An annual work plan is being drafted each year regarding to the triennial work plan and the management plan.

### Monitoring and evaluation

The previous management plan (2005-2010) did not precise the monitoring and evaluation

system of its implementation. No specific impact indicator have been defined to measure the success of the various activities planned but inventories and ecological monitoring give an global overview of the conservation status of Mole Park values.

### 3. Inputs : what do we need ?

#### Human resource

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Among the 180 people working in Mole, 95 of them are dedicated to law enforcement.

#### Research

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Some recent research activities revealed the presence of Caracal in the park. Nevertheless park managers feel that research activities are not relevant enough to help them in their decision making process. Rather than investigate rare animals it would be much more useful if the effects of the burning policy could be investigated. This could be done by a GIS specialist, who could make use of satellite imagery that already exists and has been stored by various agencies for the last 15 years or more. (Source: 2005-2010 management plan) They also wish to have more information on population size and distribution factors of big mammals and on factors that make Tse-Tse population increase.

#### Financial resource

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As no on-going project is available anymore, financial resources are currently lacking to support the implementation of all management activities. The budget given to Mole by the government in 2011 was about 140 000 Cedis (excluding salaries).

### 4. Management processes : how do we go about it ?

#### Natural resource management

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- **Fire management:** Aerial surveys and ground coverage have shown that most of the park is burnt every year, especially in the north. Indeed, the park is burnt much more than the surrounding lands. The burning has usually been quite late in the dry season. It is often uncertain whether the fires are started by staff or by poachers.
- **Invasive plant management:** invasive species (Teaks) were used as demarcation boundary but then they start to spread within the park on small areas. Neem, *Leucaena*, Cassia and teak are already invading, especially around the Motel and HQ, (especially teak by the entrance gate) and around Mognori. There has been an effort to cut down and burn neem trees around the HQ, but this has not been successful.
- **Water resource management:** Two dams were constructed in 1960 below the escarpment to the west of the Motel. The dams have been very successful and provide excellent game viewing from the motel, especially in the dry season. Large crocodiles and many birds can always be seen there and elephants often spend hours in the water each day. A third waterhole is currently being constructed (with a second hide). The south-West part of the park is poor water holes and park managers wish to create some artificial ones in this area.

**Ecological monitoring:** MIST (Management Information System) is a relatively simple GIS system for displaying and analyzing data that has been gathered by Wildlife guards during patrolling. It was introduced in October 2004. It can also be used to monitor patrols themselves, so that, for example, they go to certain areas where there has been insufficient ground coverage. MIST is already providing a lot of data about the distribution of wildlife and the incidence of poaching.

## **Law enforcement**

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There is 95 staff dedicated to PA surveillance. All of them are well trained thanks to the annual training provided by the Mobile Training Unit of Wildlife Division. Collaboration with judiciary and law enforcement agencies is working well.

## **Resource inventory**

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The size of animal populations is estimated through Wildlife surveys that have been carried out in 1994 and in 2006. But the results of the 2006 survey are contested because the figures of this total inventory have not included correction factors. As a matter of fact, park managers prefer to use 1994 survey result even if they are outdated.

## **Management of staff**

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Law enforcement staff is well trained thanks to the annual training of the Mobile Training Unit of wildlife Division. But staff management is however penalized by poor staff motivation, low staff transfer from a PA to another, unattractive working conditions and low turnover of old staff.

## **Management of budget**

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The current budget is well managed but not sufficient to cover all management activities. The funds provided by tourism activities are transferred to the Wildlife Division account.

## **Infrastructure and equipment**

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A headquarter and many satellite camps are settled throughout the park. Track network is made of approximately 240 km of tracks in the park, of which about 100 km can be used as tourist tracks. There are also infrastructures specifically dedicated to tourism activities: 1 tree hide and 2 viewing platform. Equipment for offices and patrolling is sufficient and well maintained.

But park managers think that additional tracks and satellite camps have to be added as well as a bridge on the river to open the access to the northern part of the park during the raining season.

## **Education and awareness**

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Surrounding communities' awareness focuses on the 33 villages that are close to the park. Film showing, meetings and debates are organized every 3 months by park staff and Arocha NGO.

## **Interactions with the users of the surrounding land (public and private stakeholders)**

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Except the relationship with PAMAU and CREMAs (see paragraph below), there is still few interactions between Mole park staff and surrounding communities and sometimes low cooperation between them. Still Mole surrounding area is one of the lowest human densities of Ghana.

## **Role of communities regarding to management decisions of the PA**

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Mole National Park has been one of the first parks to implement the PAMAU and CREMA concepts. A PAMAU (Protected Area Management Advisory Unit) covers one administrative district. The PAMAU is made up of Wildlife Division, District Assembly and Traditional Authority representatives. The PAMAU should give advice to the Park, especially on management and community outreach issues. The CREMA (Community Resource Management Area) is a geographically defined area (normally just outside the park) with sufficient resources where communities have organized themselves to use resources

sustainably.

Collaboration is beginning to make progress, but there is still lack of appreciation by some people. It must be accepted that change takes a long time to give benefits.

### **Tourism**

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Around 12 000 tourists have visited Mole park in 2011. There were 16 000 of them in 2008. Around 50% of the tourists are Ghanaians. Many activities have been developed within the park and in the surrounding CREMAs. Some ecotourism activities have been developed since 2007 within several villages around Mole. Mole park supports these activities by providing trainings to the local guides.

There is a small Museum with exhibits of skulls, skins and some ornithological display boards. Most of the materials are in poor condition.



## 5. Outputs : what did we do and what products and services were produced ?

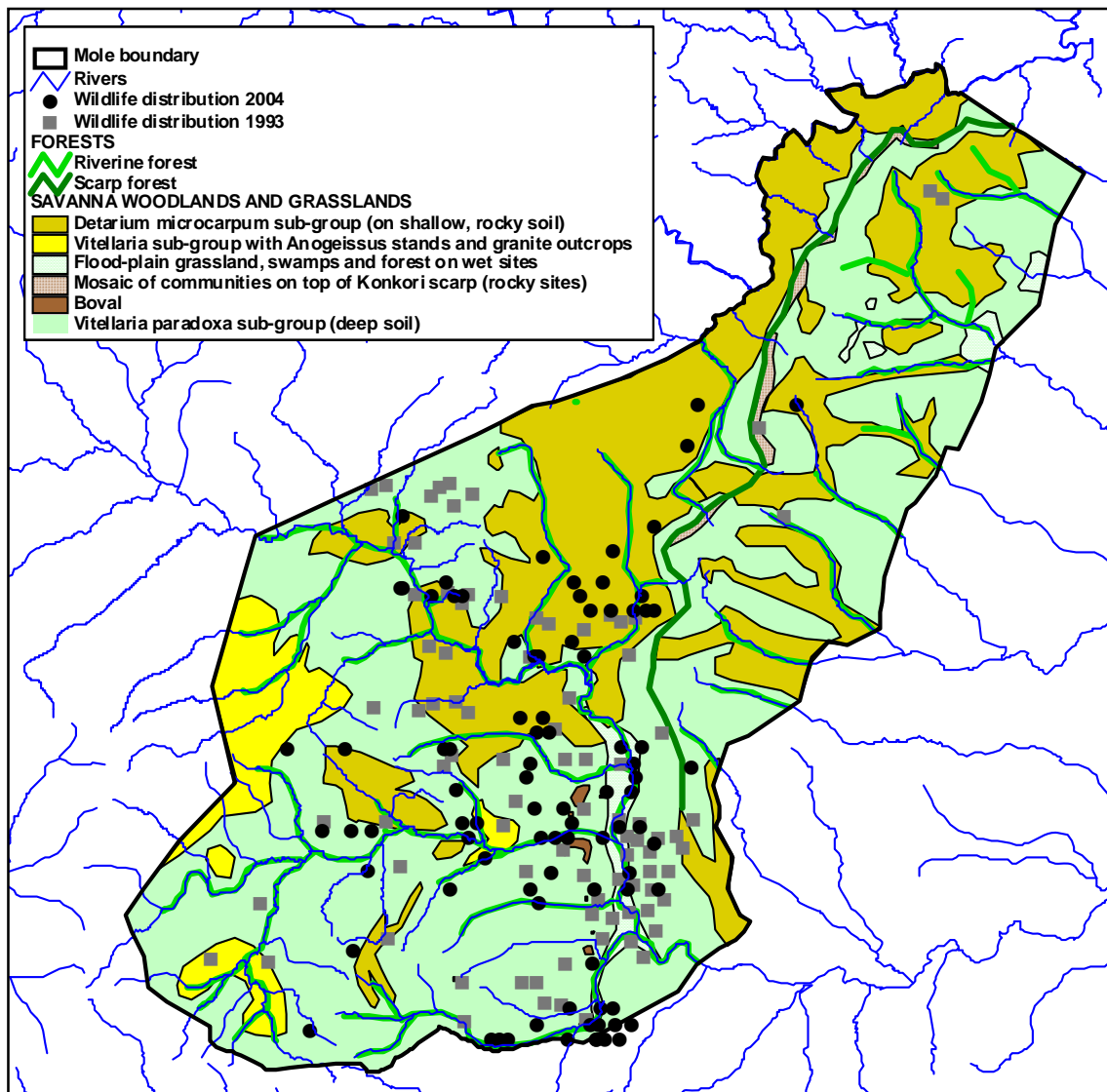
### Visitor facilities

Many visitor facilities are available and efficient. They are enough and commensurable with the level of visitation. Mole motel and car rental services are managed by private societies but the infrastructure is owned by the government. There was a small tourist camp near the Lovi Patrol Camp, about 32 km from the park headquarters. It has not been used for many years and has now collapsed. But tourists are allowed to camp by the Motel and the tree hide. There are also various guest-houses in Larabanga.

### Fees and taxes

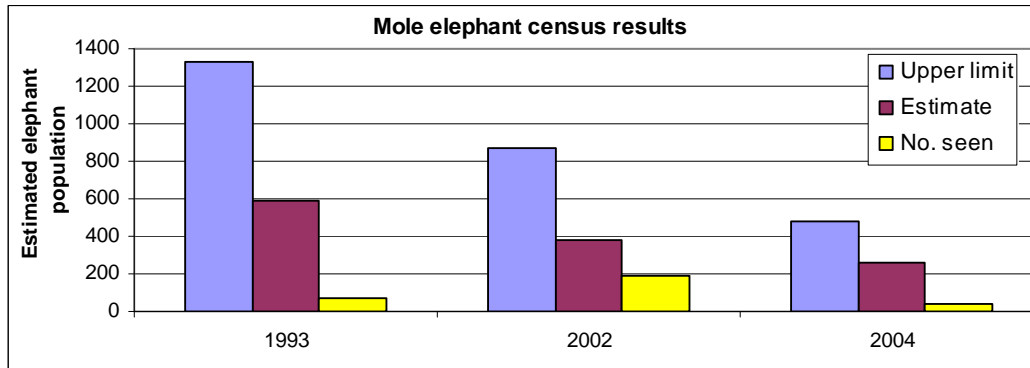
Entrance fees collected from tourist activities (guiding tour) taking place within the park are totally transferred to Wildlife Division account.

### Condition of values



Source: 2005-2010 management plan

The trends for the major wildlife species in Mole NP are shown below. It is clear that wildlife populations are declining for almost all species. Elephant numbers are falling and could be finished in ten years if we do not take real action now.



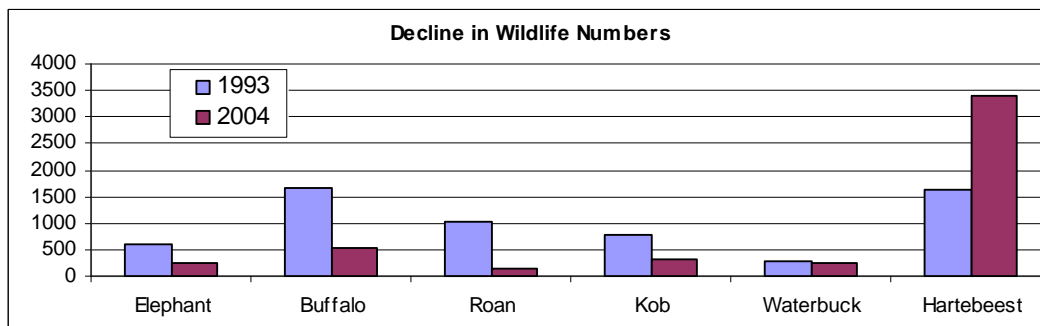
Source: 2005-2010 management plan

**Estimates of wildlife populations 1993 and 2004.**

|            | Aerial survey 1993 | Aerial survey 2004 | Trend    |
|------------|--------------------|--------------------|----------|
| Elephant   | 589                | 259                | Decline  |
| Buffalo    | 1665               | 541                | Decline  |
| Roan       | 1012               | 155                | Decline  |
| Kob        | 781                | 329                | Decline  |
| Waterbuck  | 298                | 249                | Stable   |
| Hartebeest | 1632               | 3388               | Increase |

Source: 2005-2010 management plan

It is clear that wildlife populations are low (except perhaps for hartebeest) and are restricted to the south-eastern and central parts of the park.



Source: 2005-2010 management plan

**Access control**

Access control of the PA is correct except in the northern part of the PA from July to September because of the flooding of the 2 rivers that pass through the park. 10 staff are based on the northern part of the PA during this period to control this area but they are on their own. There local people walk across the park, mostly between Bawena and Ducie, usually to visit a shrine at Esalakawu (a distance of 40 km). Some even come from Tamale. Sometimes they sleep halfway at Konkori. There is also a minor entry point at Grubagu, but there is no corresponding control point on the western side. Although they should be accompanied by Wildlife Guards, there is currently no established system. Park manager planned to build a bridge across the river in order to reach this area during the rainy season

but there is no budget available for that.

### **Economic benefits for communities**

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There are various non timber products that members of the fringe communities might like to collect in the park, if they were allowed to do so. The harvesting of such products was proposed by the 1994 Management Plan, but was never implemented. It needs to be remembered that the plants and animals that are found inside the park used to be found outside it as well, so it must be the local people who have overused their resources. At this stage in the development of Mole National Park it is thought to be too early to bring in the concept of Multiple Use Zones for significant areas of the park. Instead, "Multiple Use" may be carried out in carefully defined small areas defined in a memorandum of understanding. If the sustainable use of resources by communities in these small experimental areas is successful, it might be possible to expand the concept to larger areas in the period of the next management plan. Practically, fringe communities are currently not allowed to harvest any resource in the park.

Beekeeping and honey production is being promoted as an appropriate source of income for the fringe communities. This activity is carried out within the CREMAs where the land cover is well maintained and appropriate.

Fringe communities also benefit from employment in the park as most of the PA staff is coming from the surrounding areas.