## A Proposed Management Plan for Ethiopia's Nech Sar National Park



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### **EXECUTIVE SUMMARY**

#### INTRODUCTION

Nech Sar National Park is in Africa's Great Rift Valley, 500 miles southwest of Addis Ababa, Ethiopia. Its unusual core feature is a land bridge between Lake Chamo and Lake Abaya, with the Guge Mountains and Sidamo Hills as backdrops. Nech Sar National Park's greatest asset is its diverse combination of ground-water forest, savanna acacia forest, open savanna, escarpment walls, highland acacia forest, hot springs and lakeshores. Nech Sar's ecosystems provide habitats for the world's largest population of the endemic Swayne's hartebeest and an unusually large population of crocodiles found within just 514 square kilometers.

For centuries this area was uninhabited. The park was gazetted in 1962, and the scant management provided sufficed until the last twenty years when Ethiopia's population exploded, propelling new communities to settle within Nech Sar National Park. The ensuing results of deforestation, grazing cattle, human habitation and overfishing in the park have caused severe stresses and degradation of park ecosystems, leaving the sustainability of Nech Sar National Park's resources in question. In February 2005 the government, wishing to protect its few remaining wilderness areas but consumed with humanitarian and political priorities, took an innovative step to protect Nech Sar National Park. It contracted park management over to African Parks Foundation, a private conservation nonprofit assisting struggling African nations. Despite a desperate need to establish baseline species inventories, African Parks Foundation's first managerial challenges have been dealing with the consequences of the government's decree that all who have recently established residence in the Park must leave. In reaction, Refugees International has claimed such resettlement is unjust. Currently priority is being given to addressing and ameliorating such concerns.

As the population around Nech Sar National Park and nearby Arba Minch increases, so do the pressures to graze cattle, fish and collect wood in the park. In the face of this challenge, the Ethiopian government and African Parks Foundation are working together with the local communities to ensure the preservation of this park – a valuable asset for Ethiopia and global biodiversity. Many Ethiopian national parks seem to be beyond repair, but Nech Sar National Park is still salvageable in the opinions of African Parks Foundation and this author. As Nech Sar National Park is one of the few protected areas still viable in Ethiopia's Rift Valley, there is a heightened urgency to create an effective management plan.

In December 2005 students in "Forest Ecology and People: Principles and Practices" (Columbia University's CERC course ENVB N0329 taught by Professor Robin Sears) were were required to write a management plan for a "favorite forest." This author's choice of the forests and habitats of Nech Sar National Park stems from a visit to this and other Ethiopian national parks in September 2005, a seven-year association with a private management model in Kenya's Mara Conservancy, and twenty years of travel in Africa. This proposed Management Plan is written for those interested in the ecology, affected by the demands of increasing human populations, and for those focusing on the role of private management of protected areas in countries overwhelmed by poverty, droughts, illiteracy and disease.

#### LONG TERM CONCEPT PLANS

Effective long-range plans for Nech Sar National Park can only be undertaken after its current species are inventoried and research determines limits and conditions for sustainability of species deemed appropriate for the habitats of Nech Sar National Park. It is recommended that long-term concept plans use the same parameters that have proved successful for Kenya's Mara Conservancy and have thus guided the formation of this management plan. The following issues must be factored into all management decisions:

- Value and fragility of the park's natural resources
- Community sensitivities to an increased presence of foreign tourists
- •Ongoing tourism appeal and what conditions could change tourist appeal
- Local support systems available for increase in numbers of tourists
- •Other local or regional cultural or natural sites of interest that could be connected to tourists' visits to the park

- •Possible pressures and disruption caused by changes in surrounding land use
- Possible destructive intrusions of the park's wildlife outside the park
- Need for a positive relationship between Africa Parks Foundation and the government
- A safe infrastructure for tourists' viewing
- Rules to protect tourists from wildlife
- Rules to protect flora and fauna from tourists' footprint and behaviors
- •Elements that can enhance all tourists' enjoyment

#### STRUCTURE OF PROPOSED MANAGEMENT PLAN

This management plan is built upon the thesis that tourism revenue is key to saving wildlife and ecosystems if it also improves the welfare of local people. The plan is presented in four sections in order to address all resources of Nech Sar National Park and its communities.

- 1. Environmental objectives:
  - Maintaining current biodiversity, and restoring former species if appropriate habitats can be available
  - Assuring sustainable habitats for current populations of Swayne's hartebeest and other wildlife
  - Controlling invasive plants
  - Regenerating flora consumed by cattle in the ground water forest
  - Disseminating information on NSNP 's species and resource management
- 2. Economic objectives:
  - Finding revenue streams to support park management expenses and improvement of local communities
- 3. Community-based objectives:
  - Compensating local people for previous dependence on park resources
  - Involving local people in management
  - •Sharing tourism revenue with local communities to enhance their lifestyles
  - Educating local people on the value of NSNP as a national global resource
- 4. Access/utilization objectives:
  - Instituting infrastructure and regulations to protect the park
  - Improving visiting experiences and dissemination of information on conservation of the park's flora and fauna

#### **CONCLUSION**

Nech Sar National Park, a jewel in the crown of Ethiopia's National Parks, is valued for its physical beauty, endemic species, and diversity ranging from lakes to mountains. As the park is not yet ruined by human incursion, as opposed to many Ethiopian parks, this proposal is written in hopes that Ethiopia, Africa Parks Foundation, ecologists, philanthropists and conservationists worldwide will join to preserve this and other such parks. Ethiopia on its own does not have the resources to accomplish this goal. Private management, which has recently succeeded in preserving Kenya's Mara Conservancy and other African Parks, would seem to be the most efficient vehicle for achieving stability in Nech Sar National Park.

# OVERVIEW: MANAGEMENT PLAN OBJECTIVES & ACTIONS The numbers that follow the actions listed indicate timeline priorities. See box at bottom of list.

#### **ENVIRONMENTAL OBJECTIVES**

#### TO CREATE AND PUBLISH A SCIENTIFIC BASELINE INVENTORY

- Find researchers to begin the inventory and identify local assistants 1
  - Set a timeline and a system for compiling inventory 1

#### TO RESEARCH HABITAT CONDITIONS NEEDED for NSNP'S FLORA AND FAUNA

- Investigate local and informal information sources 1
  - *Find specialists for this research* 2
    - Determine hiring guidelines 2

#### TO RESEARCH WATER RESOURCES, EROSION CONTROL AND FLOOD REDUCTION

- Repair deforested and eroded areas 1
  - Analyze each source of water 1

#### TO ESTABLISH CRITERIA AND PLANS FOR CREATING A SUSTAINABLE HABITAT FOR PARK'S CURRENT FAUNA

- Improve protection of ecosystems from cattle degradation and over-fishing 1
  - Support fish populations in Lake Chamo needed as food for crocodiles 1
    - Research possibility of buffer zone acquisition 1
      - Protect wildlife from poaching 2
    - Study impact of re-introduction of wildlife species 2

## TO ESTABLISH CRITERIA AND PLANS FOR CREATING SUSTAINABLE HABITATS FOR PARK'S INDIGENOUS FLORA

- Prevent further illegal grazing or harvesting 1
  - Remove invasive species 1
- Study and institute most appropriate burn policy 2
  - Encourage regeneration of eroded areas 2

#### **ECONOMIC OBJECTIVES**

#### TO INCREASE TOURISM REVENUE

- Determine sustainable levels of tourism and set goal for percentage of increase 1
  - Raise entry fee 1
  - Begin marketing tourism agencies and drivers 2
    - *Meet monthly with local tourism providers 2*

#### TO MARKET NSNP AS MOVIE SET AND FILMING LOCATION

Research means to do this - 3

#### TO FIND DONOR SUPPORT

Tag NGO's and donors to be approached - 3

#### TO INSTITUTE A CONSERVATION FEE

Study best means to do this and institute if deemed appropriate - 3

#### **COMMUNITY-BASED OBJECTIVES**

#### TO ESTABLISH NSNP / COMMUNITY LIASONS

- Employ a "Community Development Consultant" 1
- Determine a percentage of revenue to be given to the communities 1

#### TO PROVIDE ALTERNATE REVENUE STREAMS

- Research forest-service payments 1
- Provide fuel alleviation schemes 1
- Research alternate harvest sources within NSNP 2
- Encourage employment of nearby residents by affiliated tourism providers 2
  - Teach higher-yield farming techniques 3

#### TO PROVIDE ACCESS TO CLEAN FRESH WATER

- Test all NSNP water sources 1
- Research feasible methods of water delivery to communities 2

#### TO PROTECT COMMUNITIES CROPS AND LIVESTOCK

- Monitor wildlife activity outside NSNP 2
- Research fencing pro's and con's for installation and maintenanace 3
  - Establish mitigation policy 3

#### TO INVOLVE COMMUNITY RESIDENTS IN NSNP MANAGEMENT AND PROFITS

- Create employment opportunities within NSNP management 1
- Offer ranger, guide and maintenance positions with training 1
- Encourage new businesses that would focus on tourists' interests and needs 3
  - Encourage local residents to market their culture to tourists 3

#### ACCESS AND UTILIZATION OBJECTIVES

#### TO INCREASE VIEWING OPPORTUNITIES

- Teach guides species identification and wildlife behavior patterns 1
  - Create viewsheds 2
  - *Improve depth and breadth of roads and tracks into the park 3*

#### TO ESTABLISH APPROPRIATE RECREATION ACTIVITIES

Consider active and passive enjoyment opportunities - 3

#### TO ESTABLISH MORE AND IMPROVED CAMPING FACILITIES

Consider new tenting opportunities and improved facilities - 3

#### TO DISSEMINATE INFORMATION ON NSNP TO THE PUBLIC

- *Create learning tools for use within the park 3*
- Disseminate information on NSNP worldwide 3

#### **EXPLANATION of TIMELINE NUMBERS**

- 1 = Tier One Immediate Priority
- 2 = Tier Two Secondary Priority
- 3 = Tier Three Tertiary Priority