

BIBLIOGRAPHIC DATA SHEET

1. CONTROL NUMBER
PN-AAJ-770

2. SUBJECT CLASSIFICATION (695)

3. TITLE AND SUBTITLE (240)

Peneda-Geres National Park: Management plan

4. PERSONAL AUTHORS (100)

5. CORPORATE AUTHORS (101)

U.S. National Park Service

6. DOCUMENT DATE (110)

1981

7. NUMBER OF PAGES (120)

88p.

8. ARC NUMBER (170)

PO333.783.U58

9. REFERENCE ORGANIZATION (130)

Interior

10. SUPPLEMENTARY NOTES (500)

(Includes Appendix: Strategy statement, 20p.)

11. ABSTRACT (950)

12. DESCRIPTORS (920)

Portugal
Reserves
Natural resources
Conservation
Management methods
Strategy
Socioeconomic surveys

Analysis
National parks
Development strategy
Environmental management

13. PROJECT NUMBER (150)

14. CONTRACT NO.(140)

PA/POR-0001-P-IP-1045-00

15. CONTRACT
TYPE (140)

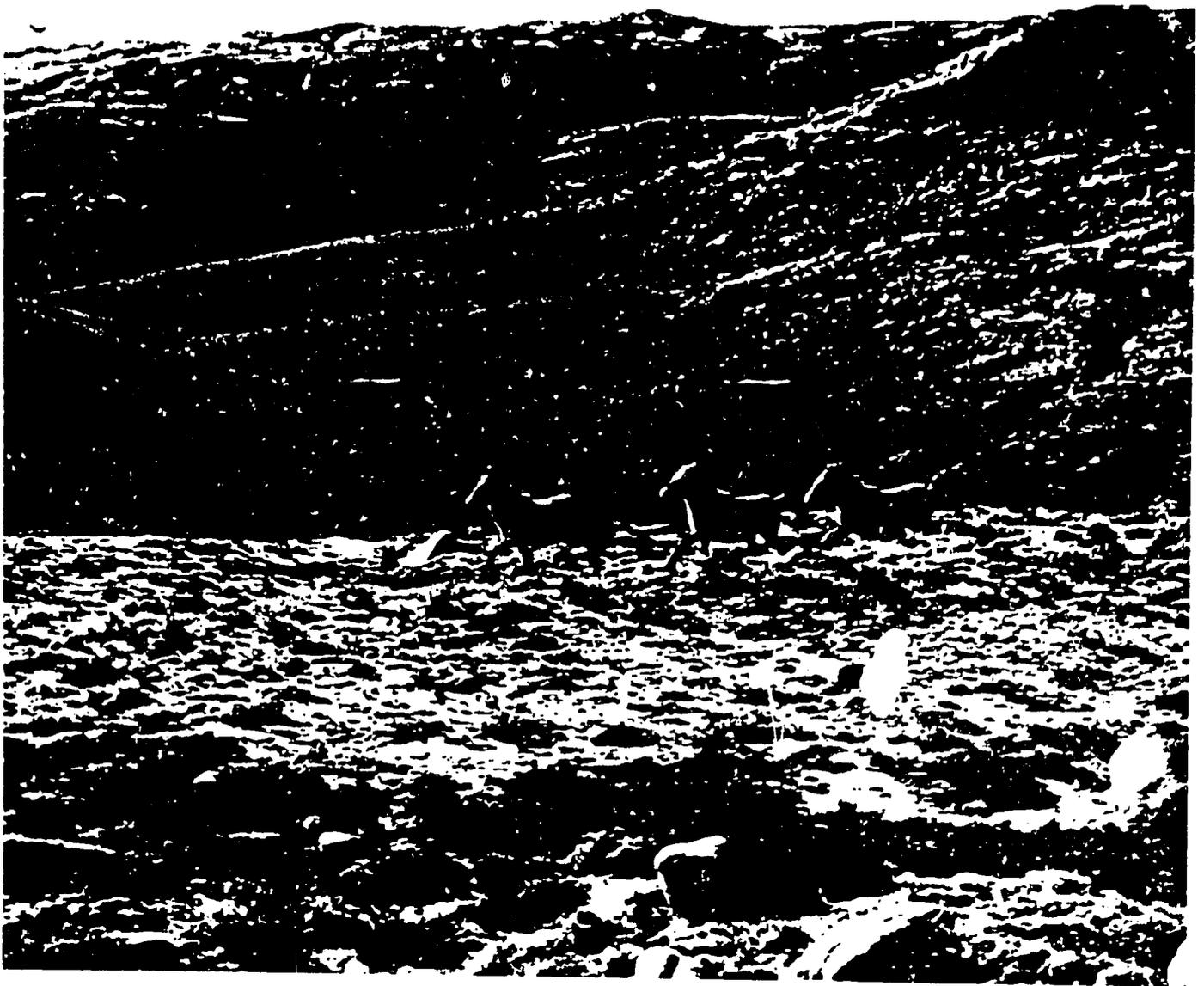
16. TYPE OF DOCUMENT (160)

Po
333.783
058

PN-PAJ-770

Management Plan

PENEDA-GERÊS NATIONAL PARK



MINISTRY OF AGRICULTURE AND FISHERIES

Portugal

1981



MANAGEMENT PLAN
PENEDA GERÊS NATIONAL PARK

INDEX

	<u>Page</u>
List of Figures	iv
Executive Summary	v
Management Plan Definition	1
 INTRODUCTION	
Location	2
Legal Basis for Area	2
Overview of Purpose of Area	3
 CHAPTER I - NATIONAL AND REGIONAL BACKGROUND	
National Context	
National Objectives for Conservation	6
National Strategy and System for Conservation Units	6
Biogeographical Provinces, Physical and Biological Regions.	6
National Transportation System	6
Regional Context	
Biophysical Features	7
1. Topography	7
2. Watersheds and Drainage Patterns	7
3. Water	7
4. Climate and Weather	8
5. Geology and Geomorphology	8
6. Soils	8
7. Vegetation	8
8. Fauna	9
9. Influence of Fire	9
10. Critical Areas	9
11. Scenic Values and Visual Quality	9
Cultural Features	10
1. History	10
2. Archeology	10
3. Anthropology	13
4. Contemporary Culture	13
Socio-Economic Features	13
1. Regional Economy and Land Use	13
2. Demographic Features	14

3. Regional Transportation System.....	14
4. Tourism, Recreation and Existing Infrastructure.....	14
Synthesis	16
CHAPTER II - ANALYSIS OF THE CONSERVATION UNIT	17
Biophysical Features	17
1. Topography	17
2. Watersheds and Drainage Patterns	17
3. Water	17
4. Climate and Weather	18
5. Geology and Geomorphology	18
6. Soils	18
7. Vegetation	18
8. Fauna	19
9. Influence of Fire	21
10. Critical Areas and Special Considerations	21
11. Scenic Values and Visual Quality	23
Cultural Features	23
1. History	23
2. Archeology	23
3. Anthropology	24
4. Contemporary Culture	25
Socio-Economic Use of the Area	27
1. Present Land Use and Trends	27
2. Visitor Use of Area	28
3. Analysis of Visitors	31
Synthesis and Statement of Significance	32
CHAPTER III - MANAGEMENT AND DEVELOPMENT	33
Objectives	33
Limitations, Constraints, and Capabilities	34
Basic Concept for Use, Management and Development	34
Management Zones	35
1. Integral Protection Zone	35
2. Natural Environment Zone	37
3. Extensive Use Zone	38
4. Intensive Use Zone	39
5. Recovery Zone	40
6. Special Use Zone	41
7. Cultural Zone	41

Boundaries	42
Management Programs and Development Schedule.....	43
1. Environmental Management Program	45
(1) Protection Subprogram	45
(2) Resource Management Subprogram	46
(3) Research Subprogram	47
(4) Monitoring and Cooperative Scientific Subprogram	48
2. Public Use Program	49
(1) Recreation Subprogram	49
(2) Interpretation Subprogram	49
(3) Education Subprogram	50
(4) Tourism Subprogram	50
(5) Public Relations and Extension Subprogram.....	51
3. Operations Program	51
(1) Maintenance Subprogram	51
(2) Administration Subprogram	51
Integrated Development Program	53
1. Development Areas	53
2. Personnel Development	55
3. Institutional Factors	56
4. General Development Map	58
LITERATURE CITED	60
APPENDICES	61
Fauna Checklist	61
Acknowledgements and Planning Team Members	62

LIST OF FIGURES AND TABLES

	<u>Page</u>
Location Map of the Park	5
Zoning Scheme	36
Organization Diagram for the Park	44
Development Schedule	45
General Development Map	58
Time Phase Plan for Technical Assistance and Training	59

EXECUTIVE SUMMARY

Peneda Gerês National Park is an outstanding cultural, historical, archaeological and natural resource that meets the International Union for the Conservation of Nature (IUCN) criteria for National Parks.

The legislation that established the Park on May 8, 1971 provided for the formation of basic laws so that the Park can operate. To date this has not been done and the following is needed:

I. Organic legislation which

- A) Establishes the structure of the organization;
- B) Sets up the personnel framework;
- C) Creates a Scientific Commission;
- D) Allows for the regulation of the different zoning for the Park included in the attached Management Plan;
- E) Regulations and rule making authority concerning: hunting and fishing laws specifically for the Park, regulating the use of the water impoundments within the Park, construction zoning and building codes, campground regulations and quiet hours enforcement, water safety and sanitation codes, disorderly conduct enforcement, timber and wood sale regulation, and other rules and regulations for the orderly management of the Park.

II. An adequate budget that would allow for the implementation of this Management Plan

There is considerable talent represented in the human resources of the Park personnel. However, training funded by the Portuguese Government in-country has a good chance of being complimented by the Agency for International Development (A.I.D.) of the United States of America (U.S.A.) for out-of-country training.

Active cooperation and exchange of ideas with the people managing the Natural Parks, Tourism, and the educational and scientific communities is highly desirable.

Management Plan Definition

A management plan for a conservation unit is a written document which (1) describes the physical, biological, social and cultural features of that unit within a national, regional and local context; (2) identifies those aspects of principal significance from which the specific area objectives are derived; (3) describes appropriate uses of the entire area through zoning; and, (4) lists in a chronological order the activities to be carried out to realize its proposed management programs. Some aspects of the document can be completed in a few days while others may be refined for years. Planning is a dynamic process which requires that a management plan be sufficiently flexible to incorporate new scientific discoveries as well as changes in societal preferences.

This edition of the management plan for Peneda Gerês National Park represents one step in the above process. It builds upon and refines the previous plan which was prepared by the park staff in 1971 and elaborated by the architects João and Delmira Rosado Correia of Porto in 1972.

INTRODUCTION

Location

Peneda Gerês National Park is located in northwest Portugal on the border with Spain. The park includes lands in both Minho and Trás-os-Montes Provinces. The lands in Minho include portions of two Administrative Districts, Viana do Castelo (with the Boroughs of Melgaço, Arcos de Valdevez and Ponte da Barca) and Braga (with the Borough of Terras do Bouro). The land of Trás-os-Montes includes a portion of the Vila Real District (with Montalegre Borough).

Legal Basis for Area

Law Number Nine of 1970, published in the Official Gazette of June 19, 1970, provided for the establishment of national parks. Four months later on October 11, 1970, the President inaugurated the Peneda Gerês National Park. The park was subsequently managed for several years under the provisos of Decree No. 197 of May 8, 1971, an annex to which established the park's boundaries.

In 1975 Decree-Law No. 550 established a National Service of Parks, Reserves and Landscape Heritage, however, Peneda Gerês has been specifically excluded from administration by that Service under terms of the Decree-Law No. 519-C of 1979. That latter law which became effective January 1, 1980 and was still in force in mid-1981, provided for the park's autonomous financial status and its direct administrative tie to the Ministry of Agriculture and Fisheries. Decree-Law 519-C also provided for:

- Subdivision into a "pre-park" zone and a "park" zone (Art. 2);
- Collaboration with the National Service of Parks, Reserves and Landscape Heritage (Art. 4). (As a result of Decree-Law 28 of December 2, 1980, the Service, which administers the Portuguese "natural parks" and related nature reserves, is attached to the State Secretary for Management and Environment under the Ministry of Quality of Life);
- The park's main headquarters in Braga although permits substations for support of residents and visitors (Art. 5);
- The Director's responsibilities and power (Art. 7);
- Establishment of a general park advisory board including representatives of local civil jurisdictions among others, which would advise on annual activity programs planned in the "pre park" zone (Art. 9 and 10);
- Establishment of a technical park advisory board including regional and local public administration officials among others, which would advise on general park activities (Art. 11);
- Establishment of a scientific commission which is to meet generally twice each year and advise on all scientific and cultural matters (Art. 12);

- Establishment of an administrative advisory board which would be responsible for expenditures of the park budget, service contracts, establishment of norms for sale of goods and services and others (Art. 13);
- Establishment of Divisions of Planning, Project Development, Heritage Conservation and Defense, Documentation and Information, and Administration (Art. 14-17). The function of each Division are to be identified in a subsequent decree (Art. 18);
- Establishment, through a subsequent decree, of personnel limits to fill the Divisions (Art. 28);
- Establishment of contracts for scientific or cultural studies (Art. 30);
- Establishment, through a subsequent decree, of regulations for use of the park and its resources (Art. 33).

The legal basis of the park, in regard to its administrative location within the government ministries, its authorized personnel level and organization, and its internal regulations are all in a current state of indefiniton pending new legislation. The subsequent decrees anticipated in Articles 18, 28 and 33 of Decree-Law 519-C had not been promulgated by mid-1981.

Overview of Purpose for Area

Peneda Gerês represents a grouping of both natural and cultural resources. One major component of the park includes about 18 500 hectares, separated in three sectors, which are mountainous areas and valleys, covered with mostly native vegetation. This land area is managed to perpetuate biotic communities and preserve representative samples of mountainous Portuguese terrain. Human exploitation is minimized and the three sectors are managed to attain the goal of a natural or near natural state. Some cultural sites, objects and monuments are found within this area and visitors are allowed to enter. At least one internationally recognized endangered species, the wolf (*canis lupis*) likely exists in this area. While disperse grazing takes place and logging is underway to remove exotic species in areas zoned for this purpose, this component meets the criteria of the International Union for the Conservation of Nature and Natural Resources (IUCN), for inclusion in the category of "national park" in the United Nations List of National Park and Equivalent Reserves.

The second major component of the park includes the remaining 52 000 hectares which surrounds the natural areas described above. These lands are likewise mountainous and hilly and covered with both native and introduced vegetation. They contain various villages where traditional land use practices are employed and architectural styles of historic importance to Portugal are found. These landscapes are characteristic of a harmonious interaction between man and his environment as well as an ecologically compatible, self sufficient way of life. Recreation and tourism are permitted and encouraged. Damages caused by wolves and European boar to villagers' livestock and crops are compensated by park funds. This component would readily meet the IUCN criteria for inclusion in the category of "protected landscape" in the United Nations List of National Parks and Equivalent Reserves.

Since the entire area was established as a national park and the rural lands surrounding the natural areas serve as a buffer, the continued classification of both components as a national park is appropriate. Activities normally considered incompatible with a national park per se are restricted to that portion of Peneda Gerês zoned accordingly to include this juxtaposition of both natural and cultural resources.

Peneda Gerês is the only Portuguese national park included in the 1980 United Nations List of National Parks and Equivalent Reserves. Its inclusion was on a tentative basis only because the effectiveness of its protection was considered marginal when the list was prepared. Three Portuguese nature reserves, Serra da Estrela (52 215 ha), Estuário do Tejo (22 850) and Arrábida (10 821 ha) all established in 1976 have also met the criteria for inclusion in the UN List. The latter are administered by the National Nature Conservation Service created in April, 1981 under the Ministry of Quality of Life.



Corço (Capreolus capreolus) Roe Deer

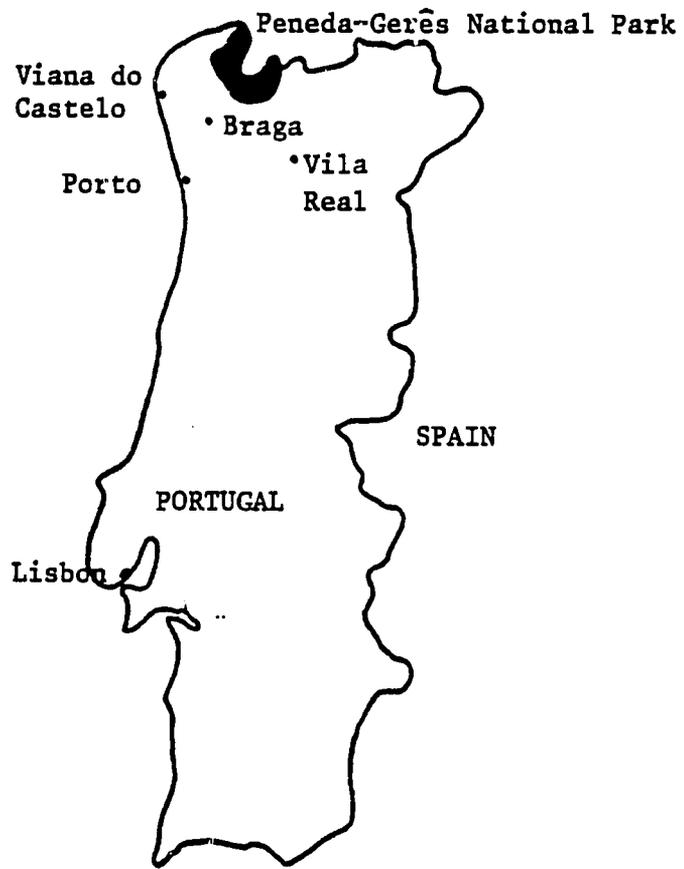


Figure 1: Location Map Within Nation

CHAPTER ONE
NATIONAL AND REGIONAL BACKGROUND

National Context

National Objectives

National Conservation objectives have been broadly outlined in Law No. 9 of 1970. In general these include "defending areas where the natural environment should be reestablished or preserved from man caused deprivations" and "the rational use of all natural resources, in the entire country, in such a way as to enable their utilization by future generations". A Portuguese National Conservation Plan is envisioned by the mid 1980's which will define national conservation objectives and will include a National Strategy for Conservation Units, among others.

National Strategy for Conservation Units

Peneda Gerês is presently the only national park established as such in Portugal. No National Strategy for Conservation Units yet exists in the country although Law No. 613 of 1976 provided an initial attempt at defining conservation unit categories. Both the revision of these categories and the development of a National Strategy for Conservation Units is envisioned by 1983 under the auspices of the National Nature Conservation Service which administers the Portuguese Natural Park System. This Strategy will form one part of the Portuguese National Conservation Plan.

Biogeographical Provinces, Physical and Biological Regions

Peneda Gerês National Park lies within the Palaearctic Realm, Iberia Highlands Biogeographical Province. Its biome type broadly pertains to evergreen sclerophyllous forests, scrubs and woodlands. Several other parks and reserves in France and Spain are also classified in the 1980 UN List as representing the above Biogeographical Province and biome type, including Spain Ordesa-Viranala Biosphere Reserve.

National Transportation System

The area of Portugal north of the Douro River is accessible by both automobile and train. Roads follow the Atlantic coast from Oporto north into Spain and radiate out from major cities such as Braga, Chaves and Bragança. One principal road crosses the park following the course of the Lima River. It connects the cities of Viana do Castelo on the Portuguese coast with Orense in Spanish Galicia. However, the border remains open only two weeks each year during local festivals.

While railroads do not traverse the park, regularly scheduled lines do reach Viana do Castelo, Braga and Chaves. Major rail lines connect Oporto with Lisbon in the south and extend north to Vigo and La Coruña in Spain. It is common for visitors from Lisbon and other southern areas to ferry their cars by train from Lisbon to Oporto on their trips north.

Regularly scheduled internal flights exist between Oporto and Lisbon. International flights from points throughout the world connect with these two cities.

Regional Context

Biophysical Features

1. Topography

In general the topography of northern Portugal slopes from the east on the Spanish border, west to the Atlantic Ocean.

Portugal can be roughly divided into a region of hills and mountains north of the Tejo River with rolling plains south of that river.

In the northern region, two provinces, Minho and Trás-os-Montes (beyond the mountains) constitute distinct geographic and topographic regions in which Peneda Gerês is located. The provinces are separated by a range of mountains.

2. Watersheds and Drainage Patterns

Major rivers in the region of the park include the Minho, Lima, Cávado, Ave and the Douro with its affluents Tâmega, Rabaçal, Tuela and Sabor. All of these are born in the Spanish Cantabrian mountains or lesser Spanish ranges such as Sierra del Eje and Sierra de la Culebra, and cross Portugal with a general course of flow from NE to SW emptying into the Atlantic. The Cávado River and its tributaries are dammed in several locations near the park.

3. Water

Northern Portugal is generally blessed with water of good quality and quantity north of the Douro River which is a major river with its headwaters in Spain. An atomic energy plant is going to be constructed on the frontier by Spain and will release its water into the Douro River. Portugal is the recipient of this heated water as the Douro River winds its way to the Atlantic Ocean at the city of Porto. The aquatic life and fishery will surely be compromised downstream from the plant.

Generally speaking, any city on the banks of a river contributes its share of human waste. However, the fact that there are few heavy industrial complexes on these rivers and poorly developed sewer systems in the municipalities saves the rivers from heavy contamination.

There are many hydroelectric projects in Northern Portugal and in some of these silting is a periodic problem especially after a bad wild fire season with the resulting erosion of topsoil coming off during the rainy season. There are several examples of hydroelectric dams in Spain which flood Portuguese farm land and Spain is the beneficiary of the electrical power. However, this is not one sided and a treaty between Portugal and Spain says that any indemnization paid for flooding is done by the respective countries flooded. For example the Lindoso Dam on the Lima River will flood Spanish farms costing Spain when Portugal is the electrical power recipient.

4. Climate and Weather

The mountains which separate the Minho from Trás-os-Montes cause clouds coming inland to precipitate so that the western side of the mountains have an average annual rainfall approaching 150 cm, but the eastern side averages less than 50 cm. The city of Braga receives about 150 cm of rain annually. Winter snows in the Serra do Gerês frequently block roads. Mean temperatures at Braga, which is about 209 metres above sea level, range from 48°F in January to 65°F in August.

The northwest corner of the Iberian Peninsula is, in general, one of the dampest spots in Europe with an average annual rainfall ranging from 50-200 cm and average temperatures between 23-25°C (July) and 8-10°C (January). One of the features of the region is the existence of numerous microclimates, particularly in valleys whose orientation inhibits the normally maritime influence.

5. Geology and Geomorphology

The northern part of Portugal is predominantly granitic with notable Precambrian and Paleozoic rock formations. The region is noted for its tungsten deposits and high grade hematite iron ore and tin are mined near Bragança. Several geological faults occur in the region including one which bisects Peneda Gerês National Park.

6. Soils

The soils of the region near the park are generally thin and acidic due to its granitic base. In the river bottoms alluvial soils provide the basis for agriculture.

Most of the Portuguese soil systems are extensions of the Iberian systems and one of ancient volcanic origin. The soils north of the Tejo River are generally lacking in carbonates and sometimes resemble moorlands.

7. Vegetation

Because of continuous occupation by man for many centuries large extensions of native vegetation are rare in Portugal. However, valuable vestiges remain in mountain or steep, non-arable river valleys.

The vegetation of northern Portugal can be broadly characterized as "mediterranean" and is similar to that of Spain, Italy and Greece. Mixed deciduous and evergreen vegetation is also predominant in extreme northern Portugal and adjacent areas of Spain.

8. Fauna

The northern region of Portugal is densely populated and native wildlife species have been undoubtedly in competition with man for hundreds of years. Some typical species still believed to exist include the roe deer (Capreolus capreolus), wild boar (Sus scrofa), fox (Vulpes vulpes), rabbit (Oryctolagus cuniculus) and wolf (Canis lupis). Other typical species described in a fauna checklist included as an Appendix.

9. Influence of Fire

Native forests produce lumber, cork and firewood. However, there has always been the need to clear more farm land and fire has been used. The native species are fairly resistant where the forest is dense enough to produce its own humid, microclimate. The planting of large blocks of pine and eucalyptus plantations in the late 1940s provided a uniform age stand of forest that is particularly susceptible to fire and forest pests.

The new plantations took away grazing from the surrounding communities and in retaliation man caused fires were and are a problem. Since the Pine plantations burned so hot, native vegetation was also destroyed and the topsoil exposed which was washed off in the next rainy season losing soil nutrients and silting of hydroelectric project impoundments.

10. Critical Areas

A problem in all of northern Portugal is the emigrant who works abroad and returns to build a home for himself which often reflects the architectural style of the country he has lived and worked in for the past decade or more. The colors of the buildings are often bright, the construction generally using modern building that generally do not last as long as the solid, granite type and may even be more expensive. Every effort should be made to blend the architectural styles of the old and new, particularly if this "new" construction occurs in villages that are still largely unaltered externally. It would be advisable to encourage people to rehabilitate the interiors of old buildings and maintain the historical, external integrity and charm.

Support facilities for the increased use of water for indoor plumbing will have to be supported in the municipalities by sewage treatment plants or pollution of water sources and rivers will result. The location of pulp mills on rivers and the proposed Atomic Energy plant in Spain on the Douro River is of serious concern.

Urban planning in cities like Porto is actively being pursued. This is extremely important to maintain historical integrity and provide scenic routes for the tourist industry. If possible, technical assistance and local planning participation should be stimulated to the level of small towns and villages ("aldeias")

11. Scenic Values and Visual Quality

Northern Portugal is characterized by clean air and waters. The farms and municipalities are neat and generally quite clean. The few instances of

dumping within sight of major roads could be eliminated by appropriate land fill disposal; convenient locations and central pickup could eliminate some of the problems.

The rolling foothills covered with small farms on terraces with grapevines on high arbours is a prelude to high mountains and open plateaus. The pine plantations are aesthetically pleasing as long as there are occasional breaks to provide vistas; otherwise, they are boring. The native vegetation, however, is particularly nice because of its color in the spring and fall and its variety in shape and size.

Cultural Features

1. History

Portugal is one of Europe's oldest states, reckoning its independence from the 13th century; it is also Europe's newest state in the sense that the present government was formed by revolution 25 April 1974. A quick sketch of Portuguese history is as follows:

- 1249 - The Moors were completely driven out of the country that became Portugal and the borders established then remain the same more than seven hundred years later;
- Early 15th century - Golden age of Portuguese exploration and imperialism absolute;
- 1580 - 1640 - Spanish Rule;
- 1820 - 1910 - Monarchy replaced by Constitutional Monarchy;
- 1910 - 1926 - Republican government;
- 1926 - 1933 - Military government;
- 1933 - 1974 - Dictatorship called the New State.

2. Archaeology

In northern Portugal evidence of Paleolithic human occupation is scarce. That which does exist is found along terraces of ancient seashores or Quaternary alluvial plains.

The pre-history of NW Portugal included a large expansion, especially starting in mid and recent Neolithic Periods with the development of the Megalithic Culture, whose most notable characteristic was its burial tombs ("dólmen " or "mamoas"). While the inhabitants of this Period left no known traces of their villages which were probably constructed of perishable materials such as wood, a profusion of their collective funeral monuments permits an inference of a relatively large occupation during perhaps some two thousand years. Following this Period the history and culture of northern Portugal and adjacent areas of Spain are inseparable. Two groupings of Megalithic remains, in Montalegre and Mezio, are only partially included within current park boundaries.

If the Megalithic Culture suggests well structured societies, it is in the Bronze Age (starting over 1000 years BC) that these societies became more complex, intensifying both soils uses and developing small villages, some of which included fortifications. This was the occupation of the NW lands, rich in tin, which was a metal critical for making bronze. The importance of this discovery is notable because of the numerous artifacts which have been discovered throughout the northern region of Portugal. The Bronze Age populations also diversified their burial techniques, which usually consisted of individual tombs. These were sometimes located in the old Neolithic "mamoas" or in individual rectangular stone boxes. Their characteristic sanctuaries are found in large or small granitic outcrops with petroglyphs including geometric, anthropomorphic or zoomorphic designs. These are usually difficult to read. The Portuguese region Entre-Douro-e-Minho is notable for the artistic remnants, nearly all from the Bronze Age, known as the "Portuguese-Spanish Galicia Group".

A truly native culture, probably arising from the Bronze Age, was the so-called "Castros Culture" which developed during the Iron Age, especially during the second half of the first century BC. Little studied until recently and containing a homogeneous cultural identity, the remnants have here and there been disturbed by invading groups of Celts. The Castros Culture is today recognized and studied within diverse cultural and ethnic horizons. The "Castros", or normally fortified encampments, are spread throughout nearly all the mountains and high places of the Peninsular NW, withstanding since the start of the first century BC, the Roman invaders. This was partially due to the mountainous topography in which the remnants are located.

The conquest of the NW, which ended during the time of Emperor Augustus in the year 19 BC, radically altered the established life style of the Castros Culture. During this period of occupation, the "Romanization" of the region was completed with socio-economic, language and religious influences which are still evident today.

Of the Germanic invaders, which substituted the Romans starting in the fourth century AD, few archaeological remains are today found in the region. NW Portugal has not been studied from the standpoint of Suevo and Visigoth Germanic Kingdoms.

The effects of Christianization of the region during the latter Middle Ages are still evident in Entre-Douro-e-Minho. The region is historically one of the major Christian centers of the Iberian Peninsula and is the heart of the so-called "granite civilization".

Territorially formed from two Iberian nations, here are also found diverse castles, some of which were built on pre-Roman Castro Culture sites.

The "corn revolution" in the 16th century and the potato contributed to the Modern Age and a larger and more definitive diversification of the type of populations disseminated throughout Entre-Douro-e-Minho. This fact, together with the topographic characteristics, soils and natural conservativeness of the mountain life, makes this region one of the richest living museums of traditional culture in the Iberian Peninsula.

Within the region several archaeology centers exist. These include:

- . Archaeology Unit of Minho University (Braga);
- . Archaeology Department of Peneda Gerês National Park (Braga);
- . Museum D. Diogo de Sousa (Braga) under development;
- . Archaeology Institute of the Faculty of Letters of Porto University;
- . Portuguese Society of Anthropology and Ethnology Dr. Mendes Correa (Porto);
- . Martins Sarmiento Society (Guimarães);

A Regional Archaeology Service, approved by legislation, has not yet started to function. The northern officer will be based in Braga.

3. Anthropology

The Portuguese are one of the most homogeneous peoples in Europe. The area of present-day Portugal has known human habitation since early Paleolithic times. The Neolithic settlers followed and Iberians appeared sometime in the third millenium B.C.. Among the tribal peoples from whom the modern Portuguese claim descent were the Lusitanians, a branch of the Iberians who chose the western edge of the peninsula as their homeland. After centuries of invasions and occupations by Celts (Castro Laboreiro's inhabitants claim celtic blood), Romans (old Roman Road to Portela do Homem in Peneda-Gerês National Park), Swabians, and Moors and constant intermixing of ethnic groups, the Lusitanians had developed into Portuguese.

4. Contemporaneous Culture

The average person in the north of Portugal owns and farms a miniplot (about 1.5 hectares (3.7 acres) that barely sustains his family. However, it is his land and a symbol of freedom. He is generally a staunch Roman Catholic and a militant anticomunist; but too often he can neither read nor write (about 40% illiteracy rate) and this reduces his opportunities to better himself. He most often farms his land with animal power and with the strength of his hands and those of his family. He is conservative, independent, and accepting of his existence.

His sons, however, through better education, serving in the army or working abroad have seen other life styles. The houses of the "emigrants" are clearly different from their neighbor's older homes by being painted bright colors and constructed of block and brick and cement of a different architectural style. South of the Tejo River the average peasant, in contrast to his northern counterpart, owned no land and generally worked as a day laborer or sharecropper on vast estates of absentee landlords - the latifundists. The peasants of the south welcomed the underground communist organizers during the Salazar years because they were offered some hope for something better.

Socio-Economic Features

1. Regional Economy and Land Use (present, planned, trends)

The "Minho" or northwest corner of Portugal, because of its favorable climate and abundant rainfall has the most intensive agriculture in the country. It is also densely populated but lack the economic importance of southern Portugal.

The "Trás-os-Montes" or northeast area of Portugal is arid compared with the Minho. This dryness, coupled with soil conditions make this a region of cereal cultivation, principally rye, and animal grazing. The Trás-os-Montes area is sparcely populated compared with the Minho, and is noted for the production of port wine along the terraced slopes of the Douro valley.

The cool northern part of Portugal is mantled in pine forests which produce rosin and terpentine in quantities sufficient to rank the country third

to the US and France. The region primarily produces mixed cereals and livestock; and, to a lesser extent, grapes, fruit and nuts. It is noted for its hidroelectric power generation. Northern Portugal is a leading tungston producing area and tungston is one of the country's leading exports.

2. Demographic Features

The coastal area of both northwestern Portugal and Spain are among the most densely populated in Europe with over 100 people per square kilometer. This population density falls off rapidly as you go into the interior and gain elevation in the mountains that are in less hospitable climate and terraine.

At the Peneda-Gerês Park there were a total 15,186 people living in 114 villages in March of 1972. Of those people, 59.39% were over the age of six and 25% are illiterate. At that time (1972) there existed 38 schools with 48 teachers, 72 of the villages had access by road, 43 had electricity and there were barely 38 telephones. In 1981 almost without exception, the villages inhabited year round have electricity and are accessed by road or about to be.

3. Regional Transportation System (present, planned)

The existing regional transportation system north of the Douro River will be unlikely to be modified in any major way. Present routes follow historical routes and the existing infrastructure is well implanted. In addition to the highways, roads, railways and commercial air routes described under "national transportation system", air taxi service is available at Bragança, Vila Real and Oporto.

4. Tourism, Recreation and Existing Infrastructure

Portugal is the touristic bargain of Europe both in financial and cultural terms. The tourist is able to feed and lodge himself at costs considerably less than the rest of Europe. Good transportation by train, plane and car rental is available and a good rural bus service provides access to even remote towns. Guide books in English and Portuguese are available and tours can be taken with several companies.

In terms of size, Lisbon (the capital city) is the largest with Porto being second. Braga and Setúbal are about the same size for third and fourth and Coimbra is the fifth largest. Portugal produces its own food and exports pine resins, ocean fishing products and exquisit Port Wine. All of the cities mentioned above have many churches and old sections which have ancient towers and castles. People are friendly when asked for help and abject poverty is not apparent. In the country, the peasant is friendly, curious, open and honest.

ITINERARIES AND DISTANCES

	<u>Km</u>		<u>Km</u>
Melgaço - Castro Laboreiro...	27	Gerês - Pedra Bela	6,5
Castro Laboreiro - Rodeiro ..	5	Gerês - Malhadoura	12,5
Melgaço - Senhora da Peneda .	27	Gerês - Ermida	11,5
Riba de Mouro - Gavieira	15	Gerês - Albergaria	9,5
Arcos de Valdevez - Soajo ...	21	Gerês - Portela do Homem	11,5
Arcos de Valdevez - Mezio ...	15	Gerês - Carris	21,5
Ponte da Barca - Lindoso	29	Gerês - Bouça da Mõ (por Lamas)	20
Terras do Bouro - Albergaria.	20	Gerês - Bouça da Mõ	13,5
Braga - Gerês	43	Gerês - Junceda	16,5
		Gerês - Cruzeiro S. João	16
		Rio Caldo - Paradela	48
		Montalegre - Tourém	29
		Covelães - Pitões das Júnias ..	8

Walk for Alpinists or Riders:

	<u>Km</u>
Gerês - Abrótegas - Altar de Cabrões - Gerês	38,5
Gerês - Leonte - Pê de Cabril - Junceda - Lamas - Gerês	28,5
Gerês - Borrageira - Gerês	20
Gerês - Lamas - Bouça da Mõ - Albergaria - Leonte - Gerês	36
Gerês - Leonte - Vidoal, Borrageira, Lomba de Pau, Conho, Prados Caveiros - Rio de Monção - Albergaria - Leonte - Gerês	27,5
Lindoso - Portela do Homem	19



Synthesis

From a national and regional point of view, the Peneda-Gerês National Park exists as a solitary entity, effectively unrelated to other Portuguese parks and protected areas. Its legislation is inadequate and does not permit its effective administration and management. The park exhibits characteristics of the internationally recognized categories of both "national park" and "protected landscape". It is physically well located in its regional context to protect its considerable natural features, including the wolf which is an internationally recognized endangered species. Its location is also appropriate to maintain a human landscape typical of the Portuguese cultural heritage. The regional analysis suggests that some areas presently outside of the park boundaries may warrant inclusion in the park for archaeological reasons.

CHAPTER TWO
ANALYSIS OF THE CONSERVATION UNIT

Biophysical Features

1. Topography

The topography of the park is mountainous with numerous valleys. Major mountain ranges include the Serra da Peneda, Serra do Soajo, Serra Amarela and the Serra do Gerês. The NE corner of the park, along the border with Spain, partially includes the Serra do Laboreiro.

The altitudes of some of the major points of interest in the park are:

Caldas do Gerês	350 m	Pitões das Júnias	1 099 m
Pê de Cabril	1 234 m	Castro Laboreiro	950 m
Borrageira	1 433 m	Giestoso (Castro Laboreiro)	1 337 m
Altar de Cabrões	1 538 m	Pedrada (Soajo)	1 416 m
Nevosa	1 545 m	Mezio (Soajo)	636 m
Cornos da Fonte Fria .	1 456 m	Louriça (Amarela)	1 355 m

2. Watersheds and Drainage Patterns

The park includes portions of the watersheds of the Minho, Lima and Cávado Rivers. While local topography causes some variations, the dominant flow is from NE to SW. Some of the important affluents of the above rivers are the Rio Laboreiro, Rio da Peneda, Rio Adrão, Rio Cabril, Rio do Homem, and Rio Gerês.

3. Water

Peneda-Gerês National Park is fortunate to have water of good quantity and generally good quality. However, water for drinking purposes downstream from any of the villages is inadvisable because of the animal and human waste that washes from the villages into the streams. Fortunately there are many good springs.

Watershed management to protect hydroelectric projects from excessive silting and insure controlled, year-round releases of water is important. Protection against wildland fires is extremely important and controlled or prescribed burning should be done judiciously.

A range management specialist should be monitoring the effects of grazing by sheep, goats and cattle so that the vegetative matrix guarantees drainage protection. In cases of overgrazing, the "Freguesias" should be advised through the "Delegado" in charge of the District and the land allowed to reestablish sufficient vegetation.

Serious erosion problems should be treated as they begin to appear.

4. Climate and Weather

The climate of the park falls well within the parameters of regional weather patterns. Occasional cloudbursts occur which can cause serious local flooding and washouts of roadbeds such as happened in the late 1970's near Bouça dos Homens. Weather stations of various sizes occur in several areas of the park, however, coverage could be improved with installations at Serra Amarela, Gerês, Pitões das Júnias and Tibo. The park climate ranges from moderate, such as at Caldas do Gerês, to colder areas such as Carris, Soajo, Pitões das Júnias and Castro Laboreiro. Average annual temperatures are from 11-13 degrees centigrade, with winters lowering to about 4 degrees and summers reaching about 18 degrees. The relative humidity often reaches about 75% in several places within the park. Rainfall averages 160 cm annually and on the Serra da Peneda, sometimes surpasses 200 cm, which is the highest in Portugal.

5. Geology and Geomorphology

The geology of the park reflects the general regional patterns of granitic mountains. A detailed geological map of the park is expected to be completed by 1982 and will include geological and geomorphological features.

6. Soils

The soils of the park are predominantly acidic. The pH of the highest mountain areas is usually less than 4.5 while the lower valleys range from 4.6 to 5.5. The soils are mostly derived from the granitic base material and contain little organic material.

7. Vegetation



The Iris (*Iris boissieri*) is found nowhere else. Limited access and use on the road which parallels the Homem River to Minas dos Carris. helps to insure their protection.

The flora of Penada-Gerês National Park is extremely varied when compared with the rest of Portugal due to the varied microclimates and elevational differences in the Park. There are 18 species not found in the rest of the country and five plants whose names are linked with the Serra do Gerês. Apart from the Iris (Iris boissieri) and the Gerês fern (Woodwardia radicans) are found nowhere else.

In general terms, the predominant species up to 800 meters in elevation are the following: "Carvalho alvarinho" or "roble" (Quercus robur); "sobreiro" (Quercus suber); "castanheiro" (Castanea sativa); "freixo" (Fraxinus angustifolia); "videiro" (Betula pubescens); "azevinho" (Ilex aquifolium) which is being illegally taken commercially for Christmas holly decoration; "salgueiro" (Salix atrocinera); "choupo" (Populus sp.); "padreiro" (Acer pseudoplatanus); "medronheiro" (Arbutus unedo); "catapereiro" or "pereira brava" (Pyrus communis); "macieira brava" or "pilriteiro" (Crataegus monogyna); "cerejeira brava" or "azereiro" (Prunus avium); and an efficient cover of shrubs which are predominantly Ericas, Ulex, and Rubus sp.

Between 800 meters and 1200 meters above sea level is found Quercus pyrenaica, Pinus sylvestris, Betula pubescens, Salix atrocinera, Salix salvifolia, "teixo" (Taxus baccata), "tramazeira" or "cornogodinho" (Sorbus terminalis), Acer pseudoplatanus, Pyrus communis var. macrocarpa, Elex aquifolium, all of the shrubs like "urza" or "torga" of the genus Erica, "giesteira" (Cytisus scoparius) and "tojo" (Genista leptoclada).

Above 1200 meters in elevation you can find Quercus pyrenaica (as high as 1300 meters in sheltered areas), Betula pubescens, Pinus sylvestris, "abrigo" or "frescura" (Taxus baccata), Sorbus terminalis, "salgueiro anao" (Salix repens), "zimbros anao" (Juniperus communis), and "caldoneira" (Genista lusitanica).

8. Fauna

A detailed, park-specific fauna inventory has never been carried out. However, notable species which park records show exist in the park are listed in an Appendix.

The IUCN Red Data Book of rare threatened and endangered species includes the following whose range likely extends into the park:

<u>Order</u>	<u>Family</u>	<u>Genus</u>	<u>Species</u>	<u>Portuguese</u>	<u>English</u>
Insectivora	Talpidae	Galemys	Pyrenaicus		Pyrrican desman
Carnivora	Canidae	Canis	Lupis	Lobo	Wolf
Carnivora	Mustelidae	Lutra	Lutra var. lutra	Lontra	European otter
Carnivora	Felidae	Felis	Pardina		Spanish lynx

The desman is a mole-like mammal that lives in fast water habitats. According to the Red Data Book, its rare status is due in part to hydroelectric installations and polluted waters. The IUCN mentions that the lynx is endangered because of habitat loss due to reforestation with non-native eucalyptus and pines which results in less rabbits which are a favored prey species. Some rabbits are also lost to myxomatosis. It is doubtful whether lynx exist in the park.

Species considered to be extinct in Peneda Gerês are the Ibex (Capra pyrenaica), a European bear (Ursus arctos) and the "galo da Floresta" (Tetras urugallus). Park records indicate that bears disappeared in the region around 1650 and the Ibex about 1890.

The park includes a small herd of wild ponies of the Luso-Galician breed which appear to be surviving well, and an endemic species of domestic dog, the Castro Laboreiro. The Barrosão cattle are also a species whose origin is believed to have been in the Montalegre area immediately adjacent to the SE edge of the park.

Because of the agricultural and livestock lands surrounding the natural areas in the center of the park, a conflict exists between wolves and livestock, and between the European boar and vegetable gardens. The park has a policy of paying rural property owners in the park for damages provoked by these two species when, through common agreement, these are definitely determined to have been the cause.



The European boar (Sus scrofa) or Javali is extremely destructive and indemnization is paid by the Park when damage is done to farms within the Park boundaries.

The roe deer or corço (Capreolus capreolus) is a protected animal in Portugal. Only the hunting of small game in season like rabbits or birds is allowed on weekends and holidays. Be that as it may, few hunters would resist the temptation to shoot a deer even if they were only armed with shotguns or .22 caliber type rifles. It is no trick, however, for a good marksman to kill a deer with a .22 rifle and a shotgun slug is easily molded if it is not available commercially and this is serious deer hunting armament.

Clandestine hunting or poaching is said to be common with hunters coming over the border from Spain to hunt in good deer habitat like the Cabril Valley.

Hunters for game birds also have a hard time resisting the impulse to blast an eagle from the sky if it comes within range. They might even go out of their way to hunt one if they see one in the vicinity.

It is imperative that the zoning of the Natural Area of the Park Proper prohibit all hunting of any sort and the Rural Area Zone (the old Pre-Park Zone) be restricted only to the residents living within the Park boundary within the same laws as the rest of the country.

9. Influence of Fire

There has always been naturally caused fire by lightning. However, man's use has been restricted by the natural resistance of native species and the micro-climates with humidity in the native stands even though man used fire to burn off the forest and improve grazing whenever he could.

In the late 1940s, a major drive to reforest large areas of northern Portugal was undertaken by the Portuguese Forest Service. In the area presently occupied by Peneda-Gerês National Park, some 57 forest Guard Stations were established and manned. This met considerable resistance from the local communities who lost communal grazing lands to the new plantations and arson fires were set in retaliation to the strict regimen enforced by the Forest Guards. Unfortunately, some of this bad feeling has carried over and comes back up when the Park mentions forestry practices to the local communities.

Because the pine stands are uniform age, the crowns are uniform height and fire in the dead pine needles at the base of the trees rapidly propagates through the resinous branches to the crowns of the pines. These "crown fires" usually result in the loss of the entire stand until the fuel type is broken by another type or break in the fuel. They are catastrophic and with any kind of wind, slope and fuel hazard loading are very difficult if not impossible to control. Unfortunately, the fire storm created by the pine plantation destroys native undergrowth and destroys extensive areas at the head of the fire. Resulting water erosion during the rainy season may compromise the area for future use and loss of topsoil could prejudice the burn area; particularly if the mineral cap is shallow and underlaid by granite or other rock.

There is presently a relatively healthy relationship between the local communities and the Park and arson sets are few. Man caused fires occur because of ignorance or carelessness - often by campers. Many of the local towns (aldeias) request that the Park personnel burn specific areas to improve grazing and controlled burning is being used during the Fall, Winter and Spring months when burning conditions are not so volatile.

10. Critical Areas and Special Considerations

There was considerable controversy over the opening of the International Boundary at Portela do Homem. Today it is an accomplished fact that the Port of Entry has been established and irreplaceable distance markers (miliários) on the old Roman Road have been destroyed through ignorance. The above mentioned zoning and regulations would avoid a duplication of that mistake and future compromise of the Roman Road.



Special precautions should be made through legislation to avoid any damage to the road bed or distance markers (miliários) on the old Roman Road.

There is an important archaeological resource at Gião which is a megalithic sanctuary. It is the only one of its kind that is known and should be included within the Park boundary. The addition of that land area north of the Cavado River between the present Park Boundary and Spanish frontier near Montalegre would unify an archaeological neolithic settlement. However, it does need this second addition to the Park.

The flooding of the fields and a portion of the village of Várzea by the dam on the Lima River will affect the Portuguese as well as Spanish farms. The release from this new dam as well as the existing ones needs to be controlled for adequate release of water immediately downstream from the dam to insure the continuation of aquatic life for trout fishing as a tourist and local sport and food source.

At the present time, it is possible to cut timber in Peneda-Gerês National Park without permission. This was done after 31,000 trees were burned. The Park Administration needs legislation that would allow them to control this kind of activity.

A law passed in 1891 by the Portuguese Government promised to give firewood to the poor of Gerês. There seems to be a problem with the definition of who is "poor" and could receive firewood. At the present time, considerable energy is going into providing wood to many people in the community of Gerês by Park employees.

Under present conditions, the Park presently has five burroughs (Conselhos Municipais) which can build roads in their jurisdiction without approval - even in the Park. Enabling legislation could correct this.

11. Scenic Values and Visual Quality

Landscape - From the point of view of landscape and a wealth of fresh waters, this region is outstanding in Europe. The areas around Castro Laboreiro, Louriça, Calcedónia, Junçada, Pedra Bela, Borrageira, Altar de Cabrões, Planalto da Mourela and Pitões are among the most beautiful. On the edge of the park are also four reservoirs which enhance the charm of the region.

At the higher elevations there is a feeling of varying horizons as one looks from ridgetop to adjacent ridgetop. The natural vegetation is colorful in Spring and Fall and protects streams which are a visual delight. The native forest types provide a forest aspect that is at once dense and yet full of surprises in the bent and turned forms of the hardwood species and the sudden surprise glens and brooks within this primeval forest.

The terraces and rock walls that were raised by men give evidence of long occupation on the land and an immense accumulated effort. The work in granite is almost an art form in itself. The fact that man still survives and makes a living in some inhospitable places is an added bonus and one marvels at the work that is involved.

Cultural Features

1. History

History in the area of the park broadly conforms to the general historical patterns of the surrounding region. The park includes a variety of Megalithic remains described under archaeology, as well as remnants of a Roman road with columnar distance markers and its bridge foundations. Castles from Medieval times are found in Lindoso and Castro Laboreiro and monasteries are flourished at Senhora da Peneda and Pitões das Júnias.

In the European Nature Protection Year of 1970, Portuguese Law No. 9 was published in the Office Gazette of June 19, making possible the creation of National Parks. On 11th October 1970 the President of the Republic inaugurated the Peneda-Gerês National Park, which is now subject to the regulations laid down under Decree-Law No. 519-C of 1979 and more recent legislation.

2. Archaeology

Peneda Gerês National Park includes some of the richest archaeological remains in Portugal, primarily because of the relative inaccessibility of its mountainous backcountry until recent times.

The first scientific investigations carried out by the Archaeology Unit of Minho University in July, 1978 and the work of the Park's Department of Archaeology which was established in July, 1979 have resulted in important advances in knowledge about the human occupation of the area since the Megalithic Culture. As in other places in the NW of Portugal, little is known about the villages or encampments of this culture. However, within the park both on the high lands of Castro Laboreiro and Mourela and on the plains of Serras da Peneda, Soajo, Amarela and Gerês, some of the most extensive Megalithic tomb groupings of the northern Iberian Peninsula occur.

Confirmation of this fact through field studies permitted the start of the First Archaeological Map of the park which is an attempt to geographically define natural regions of archaeological interests. These are one of the strongly conditioning factors in the spatial organization of pre-historic cultures. Some of the Megalithic tomb groupings are today divided by the park boundary, particularly near Montalegre where all of the region between the right margin of the Cavado River and the Spanish border form part of a geographic unit with the eastern sector of the park; and, especially in the area of Mezio where an important group of "dolmen" are found within a notable stone walled sanctuary with petroglyphs at Gião which is unique in the Iberian Peninsula.

These and other archaeological sites within the park require immediate attention to record their value and to preserve them from human encroachment. Since 1979 the Department has concentrated on two major projects besides the map.

The first is a study of pre-historic rock carvings at Bouça do Colada near Lindoso at a Bronze Age sanctuary discovered towards the end of 1979 and at Gião.

The second is the recuperation and integral restoration of the Roman Road between Bouça da Mõ and Portela do Homem. Within the 4.5 Km segment, four dozen Roman distance markers have been found, 27 of which still bear their original engravings. This segment of the Roman Road No. 18 of the Itinerarium Antonini is one of its most important because of the large number of distance markers found there. For restorations of this roadway, which would include possible rebuilding of the bridges, substitution of the engraved Roman marker columns with replicas and excavation of the roadbed in such a way as to rehabilitate it; help has been requested from UNESCO.

3. Anthropology

Much of the archaeological work and historical information about the inhabitants of northern Portugal is reflected in many of the ways that they live today. In essence, living history is being lived without the need to recreate that which once was. It is an opportunity to continue the fine anthropological work which has already been done.



The use of granite blocks and thatched roofs is an integral part of the life style of the people in the mountainous region of northern Portugal.

4. Contemporaneous Culture

Man has successfully survived in the mountainous area of Peneda-Gerês National Park for many centuries. He has done this by an efficient irrigation system (Prado do Lima) in which water in small quantities is gravity fed onto the inclined pastures in such a way that it meanders across the face of the pasture uniformly watering it. This was only possible after terracing on some steep sidehills using rock walls. If this type of agriculture is given up for more destructive grazing practices, it may be necessary to subsidize continued agricultural practices to avoid erosion and eventual compromise of the hydro-electric water impoundments.

Since the vegetative cap is not very thick, rotation farming is used to allow the land to rest and liberal use of a mixture of animal manure and vegetative matting (estrume) allows more food production together with additions of mineral properties like calcium where the soil is deficient in these.

There are 114 small villages that lie within the boundaries of the Park. Many are made up of only a few houses and some like Branda da Bouça dos Homens is inhabited only in the summer when the sheep, goats and cattle are on their summer range and some of the houses are not occupied at all.

The villages are generally located central to the individual farm plots and the arable land is not used up by houses dotting the landscape, but compact living with narrow streets houses built of granite blocks and animals often sleeping on the ground floor while the human occupants sleep on the floor above them. Animal manure is allowed to accumulate, brush mats are laid down, with more manure on top, matt, manure, matt,.... etc. forms a layered mulching (estrume) which ferments and also produces heat. With tiny windows, the homes have a huge hood leading to the chimney and an open fire is kept going. The smoke cures sides of pork which are hung inside the hood. This combination maintains a relatively warm ambient temperature inside. The local people say they have 3 months of infernal summer (verão) and 9 months of winter (inverno).

There are several examples of communal living that is good common sense. A community oven is often used which is made of granite blocks. In Pitões das Júnias, baking is done on Monday and one family per week is responsible for cutting the firewood and firing the oven. The bread keeps nicely eight days.

Another example is herding of animals which are done on open range. Herding responsibility is rotated according to the number of animals one has in the herd; the more you have, the more days you are responsible for herding yours and your neighbors' animals.

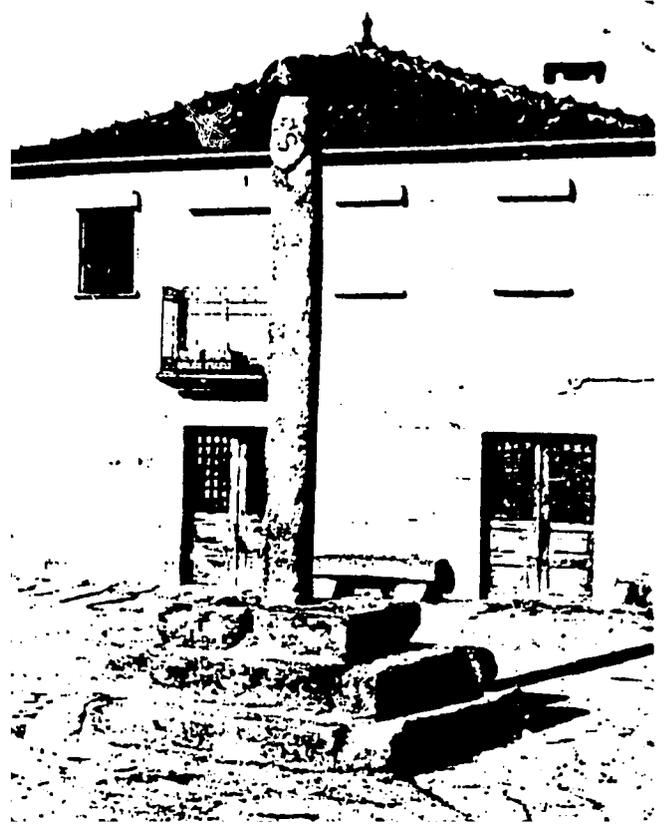
A non-paid President of the "Junta de Freguesia" community arbitrates disputes and holds town meetings. Most houses in the villages are without running water or a central sewer system. However, most have electricity and telephones in the town. There is enough to eat and health is robust. Medical facilities are distant as a rule and medical emergencies are compounded by time for transport by land.

In order to maintain the touristic attraction, zoning and building codes concerning the external appearance of buildings, their roofs and surroundings

is extremely important. There may be some need for government subsidies or low interest loans so that people can modernize the inside of their houses and reconstruction of some monuments may be appropriate.



The "Pelourinho" of Soajo village had to be constructed after it was broken when a vehicle crashed into it.



The "Pelourinho" after reconstruction. As the legend goes, a stranger could stay in town for the time it took for a freshly baked loaf of bread to cool on the point of a lance.

Socio-Economic Use of the Area

1. Present Land Use and Trends

The total park area contains about 22,000 hectares of private land mostly concentrated around the villages. Government owned lands constitute about 55,000 hectares, of which about 20,000 hectares are natural areas. The private lands are predominantly devoted to self sufficient agriculture and livestock production with some disperse grazing which ranges into portions of the government owned lands.

Because of the tendency of young males to emigrate abroad as bakers or butchers a local labor shortage has evolved and some land use practices are changing. Tractors are replacing ox-drawn plows and summer wildfires on grazing lands are replacing the formerly controlled winter burns. As the emigrants return to their villages with their accumulated savings, a tendency exists to build bigger and flashier houses than those of their neighbors, thereby irreparably altering the architectural aesthetics of the ancient stone buildings which dominate many of the villages. Likewise the traditional granite corn storage bins ("espigueiros") are starting to be replaced with ones made of concrete, tile and other modern materials.



These grain storage bins ("espigueiros") are found only in neighboring Galicia in Spain; and in Rumania. The broad stones at the top of the pedestles upon which the stand keep the rodents out. Air passing through the lowerèd sides dries the grain, preserving it.

2. Visitor Use of Peneda-Gerês National Park and its Environs.

The main attraction of the Park for visitors since the times of the Romans are the mineral waters of Gerês. Many people feel that they contain curative powers and the water is drunk and bottled. There are some facilities that allow immersion in the water and the use of this water under pressure, jacuzzi style, and other .

Accurate travel figures are lacking but the season for heavy travel begins May 1 and continues through October 15. Spring and Fall is often rainy with occasional snow at the higher elevations. It is estimated that there are 300,000 visitors per year to the Park with two thirds of them visiting Gerês. About 15,000 local inhabitants live and work in the Park year-round. There is a considerable hotel, pension, residential and private home infrastructure (See following subprogram of Tourism for details). In Gerês the foregoing combination provides 206 rooms with bath and 619 rooms without bath for a total of 825 rooms.

Peneda-Gerês National Park also provides a house with six rooms for Park Officials and Instructors, a house for tourists with three rooms and a three room dormitory with shower facilities for two instructors and 24 students in Gerês; a house in Pitões das Júnias for tourists; a house at Dorna for tourists; a house at Penha for tourists; a house at Veranda de Murço for tourists; and a house at Lamas de Mouro for officials. The Park also provides a carry-all with 9 seats and a bus with 15 seats for student groups which the Park provides gratis. Tourists may also rent these vehicles. Between Mezio and Soajo, there is a facility called the Soajo Adventure School with a 30 bed capacity. It is run principally to guide visitors on hikes in the Park.

Information - Information may be obtained at: Arcos de Valdevez, Gerês, and in Braga at Rua de S. Geraldo, 29-31 - Tel. 26 472.

OVERNIGHT LODGING INFRASTRUCTURE, LOCATION,
NUMBER AND TYPE AT THE "TERMAS DO GERÊS"

Hotel Parque	26	rooms with bath,	36	without bath		
" Termas	31	"	"	"		
" Universal	7	"	"	"	, 83	" "
" Ribeiro	3	"	"	"	, 46	" "
" Maia	60	"	"	"		
Pensão Geresiana	6	"	"	"	, 38	" "
" Baltazar					32	" "
" da Ponte	6	"	"	"	, 44	" "
" Jardim					29	" "
" Fernandes					25	" "
" Carvalho Araújo	4	"	"	"	, 16	" "
" Moçambique					18	" "
" Maria Adelaide	10	"	"	"	, 15	" "
Residencial Casa da Ponte	9	"	"	"	, 11	" "
" Príncipe	2	"	"	"	, 16	" "
" Pensão Moderna					20	" "
" Eifel	30	"	"	"	,	
" S. Gonçalo	9	"	"	"		
Vivenda Moura					10	" "
Cafê Mira-Golf					8	" "
Casa Carvalhal					15	" "
" Lurdes Capela					12	" "
" Luís de Sousa Carvalho					8	" "
" Maria Capela					20	" "
" Santa Comba					8	" "
" do Rio					7	" "
" Eufêmia Espada					10	" "
" Zulmira Teixeira					11	" "
" Manuel Antunes					12	" "
" Alfredo Guedes					11	" "
" Lino Pires					12	" "
" Hermínio Fernandes					11	" "
" João de Oliveira					12	" "
" Atlântico					11	" "
" Estela Esmeralda					12	" "

Park Visitors can camp at the following areas near Gerês:

<u>Name</u>	<u>Location</u>	
Caldas das Taipas	Parque Nacional	Tel. 47 156
Caldas de Vizela	Within Parque das Termas	Tel. 48 268
Braga	Next to Estrada Nacional	Tel. 101-22 550/ 42 450
Guimarães	At Estância da Penha	
Amarante	Next to Rio Tâmega	
Chaves	S. Roque	Tel. 29
Caminha	Mata de Camarido	
Vila Praia de Âncora	Pine Plantation of Gelfa	
Viana do Castelo	Cabedelo (Orbitur and Inatel Tour Cos.)	
Porto	Rua Costa Cabral, 186 (Acadêmico F. Club)	
Gerês-Vidoeiro (under const. for trailers)	Vidoeiro-1Km from Gerês..	Tel. 65 181
Gerês-Albergaria (to be closed in June 1981)	Ponte Feia 9.5Km	Tel. 65 181

Hiking, trout fishing and horseback riding (Gerês) is available.

Sightseeing - There are many and varied traces left by our forebears in this region, in the form of weapons and utensils made of stone, bone, bronze and wood, pottery and bead and amber necklaces. Even older documents to the past, perhaps 5000 years ago, are the dolmen of Castro Laboreiro, Mezio, Paradela, Cambeses, Pitões and Tourém. There are also "castra" to be found scattered over this territory, examples being those of Castro Laboreiro, Pitões, Tourém and Cidadelhe. Everything points to the occupation of Calcedônia by the Celts before the arrival of the Romans.

There are to be seen in this National Park the largest number of Roman milestones anywhere in the Iberian Peninsula. These were placed between the years 79 and 353 A.D. and they are classified as national monuments. Situated along the Roman road that linked "Bracara Augusta" to Rome, they make it easy to reconstitute the whole course of the road that lies within the confines of the park, from Bico da Jeira, Volta do Covo, Ponte Feia as far as Portela do Homem.

A visit may be paid to the remains of the Monastery of Santa Maria das Júnias, which is believed by some to date from the 9th Century, and was burnt down during the War of Restoration in 1640.

The Castle of Castro Laboreiro, which is presumed to date back to Roman times, was later walled by Dom Afonso Henriques. What remains of the fortifications was erected by Dom Dinis. At an unknown date it was almost completely destroyed by the explosion caused by lightning that struck the powder magazine.

The Castle of Lindoso, built by Dom Dinis in 1287, is wonderfully situated, and is hoped that in the future it will be used as an interpretive centre for the National Park.

The Soajo franchise pillar, that of Castro Laboreiro, the famous cylindrical granite monolith known as the Cross of São João do Campo and the Pedra de Águas of Pincães, all these are of great interest from an historical point of view.

Nearly all the villages within the area of the park are of great interest for their spontaneous architecture, ethnology and for their picturesqueness.

Popular Pilgrimages (Romarias) - The "Romaria" which attracts most crowds anywhere in the North of Portugal is that of São Bento da Porta Aberta, at the Sanctuary of the same name. This takes place from 10th to 15th August. The "Romaria" of Nossa Senhora da Peneda is also much frequented: this festival of Alto Minho is held during the first week in September.

3. Visitor Use Analysis

May 1, 1981 was the opening of the Visitor Use Season at the Termas do Gerês. On 2 May we saw 13 buses at the same time on the main (and only) street of the town of Gerês where they can go and they even were parking on the sidewalk. A new road will relieve some of this pressure.

A study needs to be done on the visitor use using some of the following means:

1. Put in a traffic counter on the main road going into Gerês from the south. A person with a hand counter can determine number of people per vehicle during the daylight hours. Might also determine whether they are from the south (A-LS = Lisbon), the north (M-ZS = Porto), AR = Azores, and MA = Madeira by these license plate codes;
2. Use the hotel registers for actual head count and to determine the occupancy rate for the months they are open;
3. Request the number of people that have entered the Park via Portela do Homem from Spain;
4. Go to our agencies for their statistics as well as the individual bus companies and have them keep records for the Park;
5. Make spot checks on other Park roads where appropriate.

Often, a convincing argument for more funding can be made based on the comparative travel figures from year to year.

Only by having the travel information will Park Managers be able to see trends in use and predict what is going to happen in the future. For instance, we know that after a certain point, concentrations of large numbers of people begin to be counterproductive. If we know where, in terms of numbers, the problem began, we are in a position to reduce use and get back to an easier condition to manage.

Synthesis and Statement of Significance

The Peneda Gerês National Park is made up of two distinct types of areas: natural environment and rural environment. The natural environment has suffered relatively few human alterations and is uninhabited. The rural environment by contrast contains many small villages hundreds of years old, which represent a typical aspect of the Portuguese cultural heritage. Scattered throughout these two types of areas are numerous sites, monuments and artifacts of historical importance.



Natural Environment Area

(Glaciated Cirque)

CHAPTER THREE
MANAGEMENT AND DEVELOPMENT

Objectives of the Area

Decree-Law No. 519-C of 1979 in its Article 4 provides for the following general attributes for Peneda Gerês National Park:

- "(1) The safeguards of its natural heritage as a synthesis of a protection ethic;
- (2) The defense and appreciation of its cultural, historical and architectural heritage;
- (3) The socio-economic and cultural development of the park's inhabitants, particularly in reference to the education and health sectors;
- (4) The compatibilization of the direct use of its natural resources with those items described in (1) and (2);
- (5) The promotion of means to interpret its heritage and of means to bring order to its recreational activities in such a way as to sensitize visitors towards the respect, use and enjoyment of their natural and cultural heritage."

Within this general context, and in view of the dual role the park can legitimately have if carefully zoned, its objectives should include ones appropriate for its "natural environment" (national park) component as well as ones appropriate for its "rural environment" (protected landscape) component. In both cases an overall goal is to foster economic returns through development of the park as an attraction for national and international visitors.

Natural Environment Component Management Objectives:

- (1) To maintain the ecosystems in a natural state;
- (2) To maintain natural ecological diversity, including reestablishment of original species;
- (3) To conserve genetic resources;
- (4) To provide education, research and environmental monitoring;
- (5) To conserve watershed production by controlling erosion and sedimentation, thereby protecting downstream investments;
- (6) To provide recreation and tourism services;
- (7) To protect sites and objects of cultural, historical, and archaeological heritage.

Rural Environment Component Management Objectives:

- (1) To provide recreation and tourism services;
- (2) To protect sites and objects of cultural, historical and archaeological heritage;
- (3) To protect scenic beauty and cultural landscapes, including indigenous architectural and traditional cultural patterns;
- (4) To stimulate rational use of marginal land and rural development;
- (5) To produce timber and forage on a sustained yield basis;
- (6) To provide education, research and environmental monitoring;
- (7) To conserve watershed production by controlling erosion and downstream sedimentation;
- (8) To preserve breeds of domestic animals characteristic of the area for scientific and educational purposes as well as public viewing and appreciation.

Limitations, Constraints and Capabilities

At the present time Peneda-Gerês National Park is limited by its enabling legislation which we are discussing in more length later under the heading of institutional factors. Another constraint on their adequate management is a budget that allows them to do what they need to do. They are operational, but need legal backing to act firmly.

The Park Rangers on the payroll were carried over from the Forest Service and are generally at the end of their careers age wise. Some have health problems and they are not as active in contacting the visiting public as they might be. This could be a function of a lack of training. Be that as it may, we are optimistic about future possibilities.

The mid-level and top-level direction of the Park is committed to the Park and have a strong conservation ethic and sense of aesthetics. There is a need for training and both mid-level and top management needs to be able to see other National Parks at work in order to get ideas and develop standards of operation. The infrastructure of the Park is essentially in place in terms of roads, housing and workshops. They are able to turn out quality signs, trails and facilities. Again, ideas and standards would help.

The stable operation is efficient. The livery operation using carriages adds another tourist attraction that is of very high quality. Everything taken together is very positive from a capability standpoint.

Basic Concept for Use, Management and Development

The basic concept for the use, management and development of Peneda-Gerês National Park should be the following:

- (a) Preserve the scenic, natural, and historical resources of the Park;

- (b) Provide for the enjoyment of these resources by national and international visitors; and
- (c) Protect, manage and allow for natural processes in the previously mentioned resources in such a way that they are left unimpaired for the enjoyment of future generations.

Management Zones

The zoning system increasingly utilized in New World countries can be modified to meet requirements of European countries with a long history of human occupied landscapes. The zoning categories employed for Peneda Gerês National Park are broadly divided into three groups: "Natural Environment Areas", "Rural Environment Areas" and "Other Altered Areas/Cultural Environment".

The latter group may be either of sufficient size to warrant designation as a defined zone or may consist of individual points such as a single castle, megalithic tomb, or other site of cultural or scientific interest. It may include enclaves designated for landscape recuperation, intensive recreational use or infrastructure development within Natural or Rural Environment Areas.

Within these three broad categories, specific zones are schematically shown on the following chart, followed by definitions and descriptions of how they are employed in Peneda Gerês National Park. The physical distribution of these zones within the park are shown on the General Development Map. Since cultural sites, monuments, and objects are widely dispersed and appear on other maps, they were not included.

1. Integral Protection Zone:

- (1) Definition - This zone normally consists of natural areas which have received a minimum of man-caused alteration. It may contain unique and fragile species of flora or fauna, ecosystems, or natural phenomena which deserve rigorous protection for scientific purposes or environmental regulation. Roads and motorized vehicles are excluded.
- (2) Objectives:
 - To preserve the natural environment by permitting only non-destructive scientific uses and protective functions;
 - To conserve natural and cultural resources.

(3) Description:

Areas within Peneda Gerês National Park zoned for the above purposes are:

- . Planalto da Matança;
- . Saramagueiri;
- . Ramiscal;
- . Mata do Cabril;
- . Encosta Calvos e Palheiros;

		NATURAL ENVIRONMENT AREAS		RURAL ENVIRONMENT AREAS		OTHER ALTERED AREAS/ CULTURAL ENVIRONMENT		
		INTEGRAL PROTECTION ZONE	NATURAL ENVIRONMENT ZONE	EXTENSIVE USE ZONE	INTENSIVE USE ZONE	RECOVERY ZONE	SPECIAL USE ZONE	CULTURAL ZONE Monuments Groupings of buildings or objects Objects
PRINCIPAL ACTIVITIES	X							
COMPLEMENTARY ACTIVITIES	O							
DOES NOT PERTAIN	-							
Scientific and/or Cultural Uses		X	O	O	-	O	-	X
Natural Recup-eration		O	X	O	-	O	-	O
Human Induced Re-cuperation		-	O	O	-	X	O	X
Conservation of Nat-ural and Cultural Resources		X	X	O	O	-	-	X
Intensive Agricultural and Livestock Use		-	-	O	X	-	O	-
Limited Agricultural and Livestock Use		-	-	X	O	O	-	O
Fuelwood and Other Forestry Production		-	-	O	X	-	O	-
Dispersed Agroforestry and Grazing		-	O	X	O	O	-	O
Reforestation With Native Species		-	X	O	-	X	-	O
Intensive Recreational Use		-	-	O	-	-	X	O
Limited Recreational Use		-	X	X	-	O	-	O
Industrial Uses		-	-	-	-	-	X	-
Infrastructure Development		-	-	O	-	-	X	-
Basic Tourism Development (Hotels)		-	-	O	-	O	X	O

- . Mata de Albergaria;
- . Abelheirinha e Água da Pala;
- . Modorno;
- . Vale de Couce e Concelinho;
- . Compadre;
- . Cornos da Fonte Fria;
- . Sobreiral da Malhadoura.

(4) Norms and Guidelines for Use:

- Only scientific use and natural or cultural resource conservation are permitted in these areas;
- Hunting, grazing and agriculture are prohibited;
- Scientific studies should be carried out in such a way as to not alter the protected ecosystem;
- No samples of plants or animals should be collected without specific authorization by Park authorities;
- Administrative activities should be primarily limited to guard patrols;
- The boundaries of the areas should be marked.

2. Natural Environment Zone:

(1) Definition - This zone normally consists of natural areas which have received a minimum of man-caused alteration. It can contain unique species of flora or fauna, ecosystems, or natural phenomena of scientific value which are sufficiently resistant to tolerate moderate public use. Roads and motorized vehicles are excluded with exception of minimum access for administrative purposes.

(2) Objectives:

- To preserve the natural environment while facilitating scientific studies, environmental education and such recreational activities as hiking and backpacking;
- To encourage natural recuperation of altered areas.

(3) Description:

The three areas in the park designated as Natural Environment Zone correspond roughly to those areas defined as Nucleus 1, 2 and 3 in the Annex to Decree-Law 519-C of 1979. Minor modifications have been made in accordance with current information.

(4) Norms and Guidelines for Use:

- Natural recuperation of altered areas and planting of native species will be permitted in this zone;

- Dispersed grazing should be avoided;
- Hunting should be prohibited;
- Dispersed recreational activities such as hiking are permitted;
- Scientific studies carried out in this zone should be one in such a way as to not alter the ecosystems present;
- Motorized vehicles are prohibited except for minimum access for administrative purposes.

3. Extensive Use Zone:

(1) Definition - This zone primarily consists of lands in a rural environment which have been subjected to human alterations. It may contain general landscapes and samples of significant features. The topography and lands should be sufficiently resistant to withstand educational and recreation activities in a dominantly rural environment. It may serve as a transition between lands intensively utilized and those in a natural or semi natural condition.

(2) Objectives:

- To remain a rural environment without intensive human impact while facilitating public access and use.

(3) Description:

Extensive Use Zone - Areas within Peneda Gerês National Park zoned for the above purposes are:

- . Planalto de Castro Laboreiro;
- . Chão das Coutadas;
- . Seida;
- . Montes de Entre-Ambos-os-Rios, Ermida e Germil;
- . Vilarinho das Furnas;
- . Lamas - Junceda;
- . Cabril;
- . Outeiro e Mourela;

(4) Norms and Guidelines for Use:

- Controlled agriculture and livestock practices will be permitted;
- Dispersed grazing will be permitted;
- General outdoor recreation will be permitted;
- Use of motorized vehicles is permitted.

4. Intensive Use Zone:

(1) Definition - This zone consists of generally altered areas. It may contain or be adjacent to superlative scenic sites and it is generally capable of supporting concentrated recreational or other uses. Its topography is capable of withstanding installations and transit. The presence and influence of human settlements and concentrations of visitors is accepted.

(2) Objectives:

- To maintain a rural environment with intensive human impact, perpetuating existing land uses and life styles.

(3) Description:

Intensive Use Zone - Areas within Peneda Gerês National Park zoned for the above purposes are:

- . Tourém;
- . Outeiro - Covelães;
- . Xertelo - Lapela;
- . Cabril;
- . Fafião;
- . Vilar da Veiga - Covide;
- . S. João do Campo;
- . Germil;
- . Ermida;
- . Entre-Ambos-os-Rios;
- . Britelo - Lindoso;
- . Soajo;
- . Lordelo;
- . Gavieira;
- . Ribeiros;
- . Castro Laboreiro;
- . Lamas de Mouro.

(4) Norms and Guidelines for Use:

- Means of subsidization will be procured to assist in external renovations or other construction in selected villages to disguise improvements in the standard of living while recognizing the dynamics of evolution of the land and its use;
- Intensive agriculture and livestock practices will be permitted;
- Production forestry practices, particularly fuelwood, will be permitted.

5. Recovery Zone



Recovery zones will eventually return the Park to a natural vegetation type by allowing natural processes to work.

(1) Definition - This zone consists of areas where the natural vegetation or soils have been damaged or otherwise altered, or areas containing significant concentrations of exotic flora and/or fauna species which are to be replaced by planned management techniques. Once rehabilitated they would be reclassified in another zoning category.

(2) Objectives:

- To detain the degradation of resources;
- To restore the areas to a more natural state.

(3) Description:

Areas within Peneda Gerês National Park zoned for the above purposes are:

- . Tieiras;
- . Penameda;
- . Couto da Redonda;
- . Porto Chão;
- . Carvalhinha;
- . Vale do Gerês;
- . Malhadoura;
- . Surreira do Meio Dio;
- . Sapateiro.

(4) Norms and Guidelines for Use:

- Human intervention is encouraged in this zone to remove exotic species and to plant or release native species which formerly existed.

6. Special Use Zone:

(1) Definition - The zone consists of areas which are essential for administration or intensive recreation activities, as well as public works which are incompatible with the areas management objectives.

(2) Objectives:

- To minimize adverse impacts on the park environment;
- To draw attention to incompatible works or activities so that where possible, they might eventually be phased out.

(3) Description:

Areas within Peneda Gerês National Park zoned for the above purposes are:

- . Lamas de Mouro;
- . Castro Laboreiro;
- . Peneda;
- . Mezio - Soajo;
- . Vale de Lima;
- . S. João do Campo;
- . Vale do Gerês;
- . Vale do Cávado;
- . Paradela;
- . Covelães

(4) Norms and Guidelines for Use:

- Intensive recreational development sites will be included in this zone;
- Industrial uses and roads otherwise incompatible with the zone in which they are found will be classified as special use zones;
- Infrastructure development including hotels will be concentrated in this zone.

7. Cultural Zone:

(1) Definition - This zone primarily consists of areas containing historical and archaeological features or other cultural manifestations to be preserved, restored and interpreted to the public. Isolated monuments, grouping of building or objects may exist within other zones.

(2) Objectives:

- To protect the artifacts and sites as integral elements of the natural environment, facilitating related educational and recreational uses.

(3) Description:

The sites, monuments and objects in Peneda Geres National Park which meet the above criteria are scattered throughout the park.

(4) Norms and Guidelines for Use:

- No archaeological material should be removed from any portion of the park without authorization of the Park Director;
- As a general rule, all artifacts excavated in the park will remain in the park.

Boundaries

The existing park boundary is defined in the official annex to Decree-Law 519-C of December 28, 1979. It follows well defined natural man-made features, readily recognizable on the ground; the text is as follows:

"The boundary starts at a point on the border with Spain identified as No. 2; follows a curve in National Highway No. 202-3 in an area known as "Solar dos Mouros"; follows National Highway 202-3 to Porto Ribeiro, Batateiro Road, Forest Road from Lamas do Vez to Mezio via Alto da Peneda, Lordelo, Vilela Seco, and Lombadinha; National Highway No. 202 to Soajo; Soajo Municipal Road to Cidadelhe Road; road from the previous crossing to the bridge over the Tamante River; Rivers Tamante, Fervença, Fraga, Murzeiro, Bergaço to the division of the boroughs of Ponte da Barca and Terras do Bouro, near Bergaço; division of the boroughs to the geodesic marker at Louriça; Furnas River to the Vilarinho das Furnas Dam; this dam's road until it crosses National Highway No. 304, near Covide; National Highway No. 304; bridge over the Caniçada Dam; River Cávado and dams until it meets Lama Chã west of Sezelhe; following Lama Chã stream to international border marker No. 121; following the international boundary to marker two, where the description started".

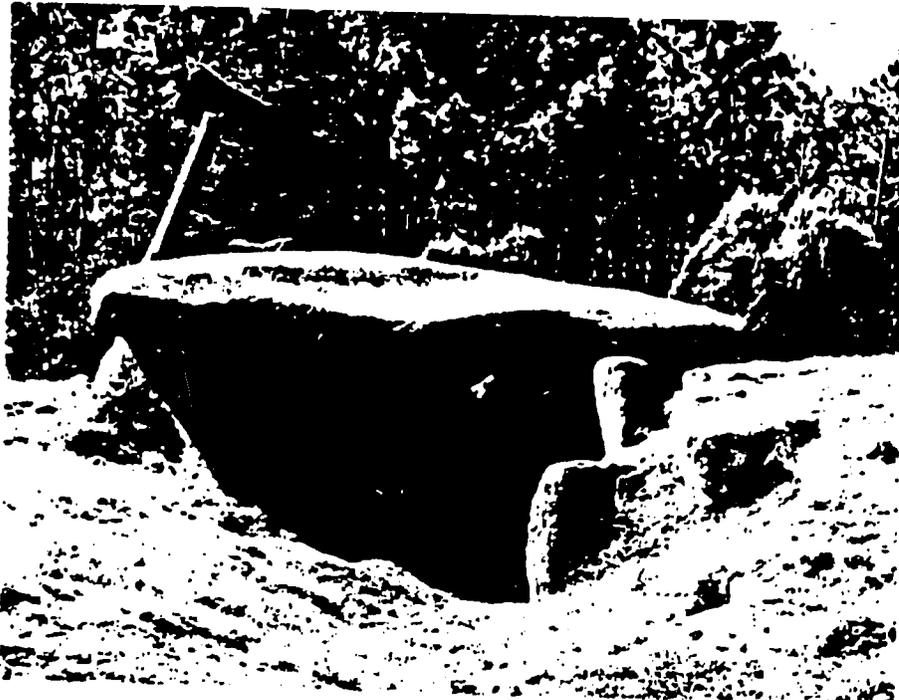
The archaeological resources found in the area of Gião, particularly the rock engravings which are believed to be unique on the Iberian Peninsula, merit inclusion in the park. An extension of the park in this area should extend from Mezio west to, but not including Cabana Maior; south to Vilar de Lobos; and back to the existing park boundary at Garçedo.

A second area near Montalegre should also be added to the park. This includes part of an archeological grouping which is presently bisected by the park boundary.

It contains no pine plantations and is a relatively uninhabited natural area with native forests.

The borough of Montalegre has requested the area be annexed. The new boundary would follow the course of the Cávado River to the Spanish border, including all lands north of the Cávado.

The possibility should be left open in the future for further additions to the park if scientific discoveries suggest that such actions would be appropriate.



This megalithic dolmen dates back to around 2500 B.C. and is one of several that follow a straight line from the megalithic sanctuary in Gião. This unique area should be included within the Park boundary.

Management Programs

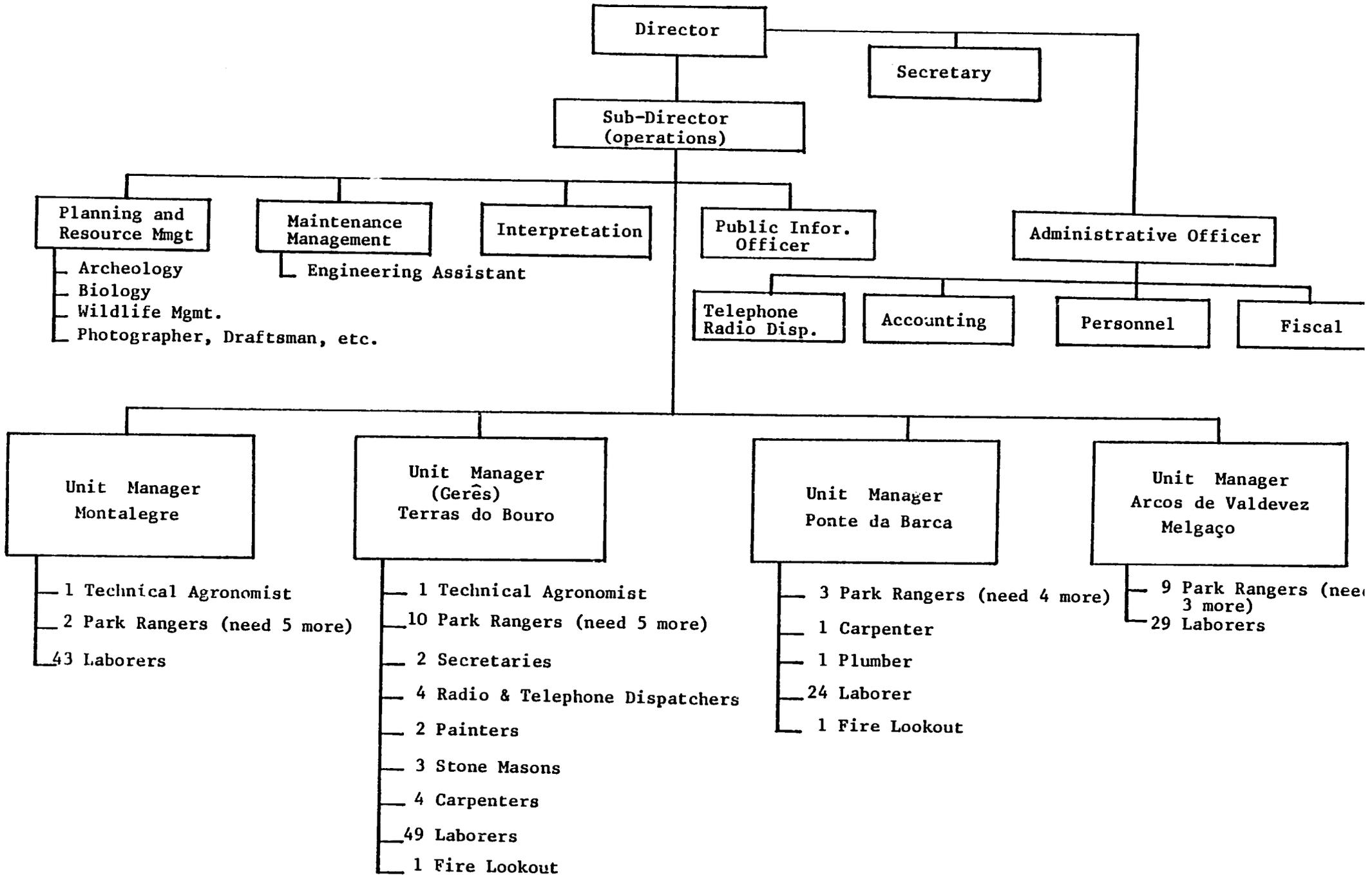
Eleven Management Programs have been developed to meet the immediate and long term needs of Peneda Gerês National Park. These are shown in tabular form on the Development Schedule Chart which includes the activities to be carried out in various stages of the park's development.

Complementary to the Cooperative Scientific Sub-program it is worth noting that agreements presently exist between the park and several organizations concerning ongoing scientific studies in the park. These include the University of Minho's Archaeology Unit, Sociology Office and Earth Sciences Office.

Agreements are presently being processed with the Polytechnic Institute of Vila Real and the National Institute of Agrarian Research. Work has been carried out in the park by the Faculties of Science and of Letters of Lisbon and Oporto, and by the Faculty of Science of Coimbra. Representatives of both the Agrarian Institute of Lisbon and the Faculty of Engineering of Oporto have also carried out studies in the park.

Complementary to the Administration Sub-program the following organization diagram is considered appropriate for the park:

ORGANIZATION DIAGRAM
PENEDA GERÊS NATIONAL PARK



SUBPROGRAM ACTIVITIES

STAGE

Environmental ManagementPROTECTION

- | | I | II | III | IV | V |
|---|---|----|-----|----|---|
| 1. Continue promotion in Ministry of Health to establish health centers in Covelães, Gerês, Soajo and Castro Laboreiro, utilizing existing structures. | X | X | X | | |
| 2. Continue promotion in Ministry of Health to establish mobile health units, based in Covelães, Gerês, Soajo and Castro Laboreiro. | X | X | X | | |
| 3. Request Ministry of Health to present a first aid course for Park Rangers. | | X | | | |
| 4. Acquire two Park Ranger Houses in the Intensive Use Zone of Cabril. | | | X | | |
| 5. Establish a commission with park and municipal authorities to select an appropriate number of villages (aldeias) which should be preserved as historical examples. | | X | | | |
| 6. Purchase one light vehicle, one truck and two motorcycles for each management unit. | X | X | X | | |
| 7. Purchase three vehicles for headquarters. | X | X | | | |
| 8. Purchase 20 mobile radios for cars. | X | X | X | | |
| 9. Purchase 10 handi-talkie portable radios. | X | X | | | |
| 10. Construct a fence at Turfeira de Tourem to protect the peat swamp. | X | | | | |
| 11. Construct a fence at Calvos to protect (<u>Iris boissieri</u>), if necessary. | | | X | | |
| 12. Fence camping areas utilizing native materials. | | | X | X | |
| 13. Assure that park is included in the regional forest fire plan. | X | X | X | X | |
| 14. Improve fire tool caches in strategic areas in São Lorenzo, Gerês, Parada, Entre Oteiros and Lamas de Mouro. | X | X | X | | |
| 15. Promote establishment of volunteer fire dept. in Gerês. | X | | | | |
| 16. Equip Gerês with material for structure fires such as fire extinguishers and a portable pump. | X | X | | | |
| 17. Purchase wildland fire tanker truck for wildland fires in Park and structural fires in Gerês. | X | | X | | |
| 18. Purchase two radio repeaters. | | X | | | |
| 19. Construct kennel to maintain the race of Castro Laboreiro dogs in the Intensive Use Zone of Castro Laboreiro, and establish registration system to maintain pedigree. | | X | | | |
| 20. Establish a breeding farm of Barrosão cattle in the Extensive and Intensive Use Zones in Mourela near Montalegre. | | X | | | |

SUBPROGRAM ACTIVITIES	STAGE				
	I	II	III	IV	V
21. Maintain the program of indemnizations for damages by wolves (<u>Canis lupus</u>) and javali (<u>sus scrofa</u>); and regulate program with payment only with proof of damages.	X	X	X	X	X
22. Establish hunting regulations which prohibit hunting in park by any outsiders and only controlled hunting by people living in Park on designated days only in Areas of Rural Environment; no hunting at all in Area of Natural Environment. More prevention patrols to stop poaching (clandestine hunting).	X	X	X	X	X
23. Establish regulations for use of reservoirs prohibiting motorized boats in Vilarinho das Furnas and Paradela.	X				
24. Establish regulations defining appropriate uses within each of the zones.	X	X			
25. Establish a program of indemnization for use of communal lands (baldios).	X				
<u>RESOURCE MANAGEMENT</u>					
1. Eliminate gradually exotic tree species from places like Tieiras, from Leonte to Portela do Homen, Porto Chão, from Leonte to Zanganha, from Leonte to Pedrabela and from Malhadoura within the Recovery Zone. This will allow native tree species to come back.	X	X	X	X	
2. Remove most of the fences used to cope wild animals in Gerês at Videeiro. Also release of javali in Mezio since it cannot be seen generally anyway and because it does not fit into the National Park concept. Some useful publicity might be generated in conjunction with the release into the wilds.	X				
3. Reintroduction of native tree species only in Rural Environment Area (Recovery Areas and Intensive Use Zones) where a place like a campground has to be quickly restored.		X	X	X	X
4. Gradually eliminate grazing of cattle and goats to permit natural recovery or reforestation with native species of Penameda, Couto da Redonda, Carvalhinha, Surreira do Meio Dia and Sapateiro, all in the Natural Recovery Zone.		X	X	X	X
5. Prepare a long term fire plan for controlled (prescribed) burning for range improvement and reduction of wildfire hazard and control needed in Areas of Rural Environment.	X	X			
6. Reintroduce ibex (<u>Capra pyrenaica</u>) only after adequate studies have been made concerning their habitat and their numbers are inventoried in Spain at Ordesa National Park. Reintroduction would only be done in Peneda-Gerês after the strictest protection measures have been taken.				X	X
7. Prohibit introduction of exotic aquatic species in certain rivers and water impoundments.	X	X	X		

SUBPROGRAM ACTIVITIES	STAGE				
	I	II	III	IV	V
8. Improve fish hatchery in Albergaria for reintroduction of native species (<u>Salmo fario</u>) in selected locations.				X	
9. Maintain trails normally utilized by rural populations so that they can also be used by visitors (tourists).	X	X	X	X	X
10. Complete road network in Rural Environment Areas to be built by Park: Baleiral to Tibo and Camping Area in Gerês.	X	X			
11. Suggest to "Junta Autónoma das Estradas" to upgrade the roads already constructed from Oteiro to Vilar da Vega, Lamas de Mouro to Mezio, and Ambos os Rios to Germil.	X				
12. Revegetate road cuts like Baleiral to Tibo.	X	X			
<u>RESEARCH</u>					
1. Complete geologic map of Park.	X				
2. Prepare a plant distribution map of the Park.	X	X	X		
3. Habitat survey is needed of principal animals by Portuguese or foreign scientists with detailed attention to the following: Wolf (<u>Canis lupis</u>); Roe deer (<u>Capreolus capreolus</u>); Royal eagle (<u>Aquila chrysaetos</u>); Otter (<u>Lutra lutra</u>); Wild cat (<u>Felis silvestris</u>)	X	X	X	X	X
4. Carry out a flora inventory of the Park by Portuguese or foreign scientists and establish a herbarium.	X	X	X	X	X
5. Establish an insect and butterfly collection by experts in those fields.	X	X	X	X	X
6. Carry out a fauna inventory of the Park by Portuguese or foreign scientists and establish a study skin collection of mammals and birds.	X	X	X	X	X
7. Cultural resources survey; might use photo reference points every 5 years.	X	X	X	X	X
8. Establish a collection of cultural, archaeological and anthropological artifacts of the park to be used later in museums and visitors centers.	X	X	X	X	X
9. Carry out a comparative study of habitat in PGNP with the habitat of the Ibex in Spain with a view towards possible reintroductions.		X	X		
10. Carry out genetic studies on plant materials of the park, including domesticated plants.	X	X	X	X	X
11. Establish enclosures to study botanic evolution.	X	X	X	X	X

SUBPROGRAM ACTIVITIES	STAGE				
	I	II	III	IV	V
12. Prepare soils map of Park.				X	X
13. Study existing land uses to form a base for future carrying capacity controls.	X	X			
14. Proceed to develop agreements with various organizations in order to carry out cultural, archaeological and anthropological studies.	X	X	X	X	X
15. Make visitor use survey and study.	X		X		X
<u>MONITORING AND SCIENTIFIC COOPERATION</u>					
1. Starting in 1984, request every 10 years that aerial photographs be taken of the park.		X			X
2. Establish complete weather stations in Serra Amarela, Gerês, Pitoes da Junias and Tibo.		X	X	X	
3. Upgrade other weather stations in the Park.		X			
4. Carry out periodic comparative studies on resources which have been inventoried to determine if species are disappearing or if composition is changing.			X		X

SUBPROGRAM ACTIVITIES

STAGE

Public UseRECREATION

1. Establish authorized camping areas, reception centers, and recreational developments in:

- Vilar da Vega
- Mezio
- Lamas de Moura
- Entre Ambos os Rios
- S. João de Campo
- Paradela
- Covelães

2. Restore one more abandoned guard house in each management unit (conselho) for visitors.

3. Establish authorized camping area at Vilela Seca.

4. Encourage each village (aldeia) to establish an exhibition explaining their way of life, products and customs.

5. Construct entrance signs at all park entrances.

6. Place signs on trails so they can be used by visitors without confusion.

7. Improve reception centers in Braga, Arcos de Valdevez, and Montalegre.

8. Prepare a catalog of signs to be made for the park.

ENVIRONMENTAL INTERPRETATION

1. Establish visitor centers in Lindoso, Castro Laboreiro, Pitões das Júnias, and Gerês.

2. Establish a self-guided nature trail in Gerês-Vidoeiro.

3. Establish an arboretum of native species at Vidoeiro.

4. Establish one interpretive trail each year in Castro Laboreiro (castle trail), Lamas do Vez, Mezio, Pitões das Júnias (Mosteiro, Cascata, and Cornos da Fonte Fria) and appropriate locations within the villages.

5. Establish self-guided auto tours in appropriate areas

6. Construct interpretive signs at the Mezio "anta", at the Soajo "pelourinho" and at other appropriate sites within the park.

7. Prepare interpretive publications and audio visual materials.

I II III IV V

	I	II	III	IV	V
1. Establish authorized camping areas, reception centers, and recreational developments in:					
- Vilar da Vega		X	X		
- Mezio	X	X			
- Lamas de Moura	X	X			
- Entre Ambos os Rios		X	X		
- S. João de Campo			X	X	
- Paradela			X	X	
- Covelães				X	X
2. Restore one more abandoned guard house in each management unit (conselho) for visitors.		X	X	X	
3. Establish authorized camping area at Vilela Seca.			X		
4. Encourage each village (aldeia) to establish an exhibition explaining their way of life, products and customs.	X	X	X	X	X
5. Construct entrance signs at all park entrances.	X	X			
6. Place signs on trails so they can be used by visitors without confusion.	X	X	X	X	X
7. Improve reception centers in Braga, Arcos de Valdevez, and Montalegre.	X	X			
8. Prepare a catalog of signs to be made for the park.	X	X			
<u>ENVIRONMENTAL INTERPRETATION</u>					
1. Establish visitor centers in Lindoso, Castro Laboreiro, Pitões das Júnias, and Gerês.			X	X	X
2. Establish a self-guided nature trail in Gerês-Vidoeiro.		X			
3. Establish an arboretum of native species at Vidoeiro.			X		
4. Establish one interpretive trail each year in Castro Laboreiro (castle trail), Lamas do Vez, Mezio, Pitões das Júnias (Mosteiro, Cascata, and Cornos da Fonte Fria) and appropriate locations within the villages.	X	X	X	X	X
5. Establish self-guided auto tours in appropriate areas			X		
6. Construct interpretive signs at the Mezio "anta", at the Soajo "pelourinho" and at other appropriate sites within the park.	X				
7. Prepare interpretive publications and audio visual materials.	X	X	X	X	X

SUBPROGRAM ACTIVITIES

STAGE

	I	II	III	IV	V
<u>ENVIRONMENTAL INTERPRETATION</u> (Cont'd)					
8. Utilize students' vacation periods for park purposes such as environmental interpretation and others, either through the existing "National Program of Students' Free Time", or other appropriate mechanisms.	X	X	X	X	X
9. Encourage the development of museums by the villages and the local guides with knowledge of the history they are interpreting.	X	X	X	X	X
<u>EDUCATION</u>					
1. Lend park films to schools.	X	X	X	X	X
2. Present exhibitions to schools in the park and outside of it through films or slides, talk, and debates. Purchase one 35 mm projector for each unit manager and one for the Park headquarters; purchase a 16 mm movie projector for the two existing films of the Park.	X	X	X	X	X
3. Distribute Park publications to schools.	X	X	X	X	X
4. Approach new teachers in the primary schools to inform them about the park and request that they include lessons on the park and its values in the curricula.	X	X	X	X	X
5. Encourage visits by schools groups to the Park to complement classes in the natural and social sciences.	X	X	X	X	X
6. Prepare an educational program on the rational utilization of the Park resources presently employed by inhabitants including agricultural practices and traditional life styles.	X	X			
7. Remodel the house in Porto Chão as center to receive students.				X	X
<u>TOURISM</u>					
1. Establish a protocol with the National Tourism Directorate (Secretaria de Estado do Turismo) to include the Park in national and international efforts by Portugal to promote tourism.		X			
2. Establish a protocol with the National Highway Board (Junta Autónoma das Estradas) for both road maintenance, when appropriate, and installation of directional signs on major roads leading to the park.	X				
3. The park will authorize private tourist bus companies to establish regular circuits within the Park. The Park must authorize all such circuits and, when functioning, will phase out its own bus trip program.	X	X	X	X	X

SUBPROGRAM ACTIVITIES

STAGE

	I	II	III	IV	V
<u>PUBLIC RELATION & EXTENSION</u>					
1. Prepare a film on the park.			X	X	X
2. Prepare posters depicting typical scenes of the Park.		X	X		
3. Prepare or solicit informative media coverage explaining the park's policies and management practices. (Radio, TV, newspaper articles).	X	X	X	X	X
4. Provide help and clarifications to journalists and reporters when preparing material concerning the Park.	X	X	X	X	X
5. Facilitate cultural interchange between the park and surrounding areas (theater and folklore groups)	X	X	X	X	X
<u>MAINTENANCE</u>					
1. Expand park headquarters as appropriate.	X				
2. Fix up uninhabited houses.	X	X	X	X	X
3. Additional road building equipment is needed; purchase D-7 Caterpillar Bulldozers with adjustable, canted blade, motorgrades, front end loader and two dump trucks.			X	X	X
4. Maintain facilities and keep litter picked up and bathrooms clean so tourists will use them.					
<u>ADMINISTRATION</u>					
1. Encourage appropriate public services (health, agriculture, education, tourism) to assist in the integrated development of the Park, but always assuring that the Park staff approves and coordinates such development.	X	X	X	X	X
2. Establish organic legislation which: defines the structure of the Park's organization, authorizes personnel levels; creates a Scientific Advisory Commission, and establishes a mechanism for rulemaking for such matters as Park hunting and fishing regulations, architectural standards, zoning enforcement, timber sales, control of motor boats and others.	X				
3. Update the management plan.					X
4. Encourage attendance at available local courses by personnel of the Park, as appropriate	X	X	X	X	X
5. Provide for appropriate PGNP staff to attend the Manager Training Course in Sesimbra of the NNCS scheduled for April/May ' 82.	X				
6. Provide for appropriate PGNP staff to attend the Ranger					

SUBPROGRAM ACTIVITIES

	I	II	III	IV	V
ADMINISTRATION (Cont'd)					
7. Provide training of senior level staff through on-the-job-training and study tour in the U.S. National Park System in 1982.	X				
8. Provide training of mid level PGNP staff through on-the-job-training and study tour in the U.S. National Park System in 1981.	X				
9. Provide training of environmental education staff through on-the-job and study tour of U.S. National Park System in 1982.	X				
10. Provide training of appropriate PGNP staff members through their participation in the International Seminar on National Parks and Equivalent Reserves.		X			
11. Provide training of PGNP senior staff by participation in the World Park Congress and related workshops to be held in Bali, Indonesia in 1982.	X				
12. Provide orientation to PGNP by personnel of the National Nature Conservation Service.	X				

Integrated Development Program

1. Development Areas

(1) Name of Development Area

. Lamas de Mouro

Activities, Services and Installations:

- Reception center;
- Camping;
- Picnic;
- General outdoor recreation;
- Fire control brigade installations;
- Restaurant;
- Installations for scientists or small groups of students.

(2) Name of Development Area

. Castro Laboreiro

Activities, Services and Installations:

- Visitor center;
- Kennel;
- Installations for scientists and students;
- Installations for visitors to rent;
- Arts and crafts center.

(3) Name of Development Area

. Vilela Seca

Activities, Services and Installations:

- Campground

(4) Name of Development Area

. Mezio

Activities, Services and Installations:

- Reception center;
- Horse rental by local residents;
- Installations for visitors to rent;
- Camping;
- Picnic
- General outdoor recreation;
- Restaurant;
- Installation for scientists and students.

(5) Name of Development Area

. Entre-Ambos-os-Rios

Activities, Services and Installations:

- Reception center;
- Campground;
- Picnic area;
- Restaurant;
- General outdoor recreation

(6) Name of Development Area

. Lindoso

Activities, Services and Installations

- Visitor center;
- Installations for students and scientists;
- Casa da Penha for visitors to rent;
- Castle historic site.

(7) Name of Development Area

. São João do Campo

Activities, Services and Installations:

- Reception center to be later developed into a visitor center (emphasis on Roman Road);
- Camping;
- Picnic (outside of park);
- Restaurant (outside of park);
- Roman Road reconstruction and interpretation.

(8) Name of Development Area

. Vilar da Vega

Activities, Services and Installations:

- Reception center

(9) Name of Development Area

. Gerês and Videeiro

Activities, Services and Installations:

- Visitor center;
- Camping and picnic areas;
- Installations for students and scientists;
- Arboretum nature trail in former tree nursery;

- Warehouses;
- Carpentry;
- Auto repair shop;
- Trout hatchery;
- Horse and carriage rentals;
- Installations for visitors to rent;
- Guided bus tours.

(10) Name of Development Area

. Parabela

Activities, Services and Installations:

- Reception center;
- Camping;
- General outdoor recreation;
- Picnic area.

(11) Name of Development Area

. Covelães

Activities, Services and Installations:

- Reception center;
- Installation for scientists and small student groups;
- Camping;
- General outdoor recreation;
- Picnic.

(12) Name of Development Area

. Pitões das Júnias

Activities, Services and Installations:

- Visitor center;
- Privately operated guest house and restaurant;
- Park operated rental installations for visitors

2. Development of Personnel

The top-level and mid-level Park managers and technicians working in the National Park of Peneda-Gerês and the Nature Parks have good technical training in their respective fields. The foresters, archaeologists, agronomists, biologists and whatever else are prepared to go into that kind of work. However, National Parks Management needs a degree in Parks and Recreation or Natural Resources Management which is unavailable in Europe. Moreover, it is hard to find good examples to pattern action by on the Iberian Peninsula. Therefore, it is very important that this training be given in the United States or Brazil.

At the level of the Park Guard (we would prefer to call them Park Ranger), there is virtually no preparation since they were absorbed from the old

Forest Service, are generally older, and some may have trouble reading or writing. However, we do have them working and they are being paid a salary. We need to work with what we have and the Rangers that we talked to seemed to be good, conscientious employees. We would recommend across the board training (See attached timetable) with the following priorities:

- a) Send the top level and selected, mid-level managers to training and workshops. This can be within the country or if they have a working knowledge of English, to the U.S.A.. A separate recommendation has been prepared for AID. Since both the National Park and Nature Parks will be exchanging personnel in the future, it is most important that they are trained together. One single National Park cannot work in a vacuum.
- b) Bring in trainers from abroad who speak Spanish and, preferably, Portuguese to conduct courses within Portugal. If neighboring Spain receives some of this training, several Portuguese might be sent to the course. It would be better to conduct the course first in Portugal to top and mid-level managers. They could then help to instruct the Park Ranger Course given later. The courses should be about three weeks long to maximize the training effect, but not wear people out.
- c) Have refresher training and orientation courses by trainers from the U.S.A. that have language capability. Continue to send people abroad for on-the-job training and specific technical courses and workshops.

It is very important that the conservation movement in Portugal gets off on the right foot. There is an entire tourist industry ready to be tapped and it would be a shame to lose this clean income for Portugal because the resources that attract the tourists were badly handled.

Tourists in the developed countries are used to going to National Parks and equivalent reserves. They have come to expect a certain standard of operation and adequate training will insure that Portugal meets that standard.

National Parks should not be thought of in a restrictive, scientific sense. For instance, the National Park Service of the U.S.A. runs all of the monuments and memorials and vegetated areas in the District of Columbia in Washington, D.C.. Peneda Gerês is actively involved in developed area, historical heritage management.

3. Institutional Factors

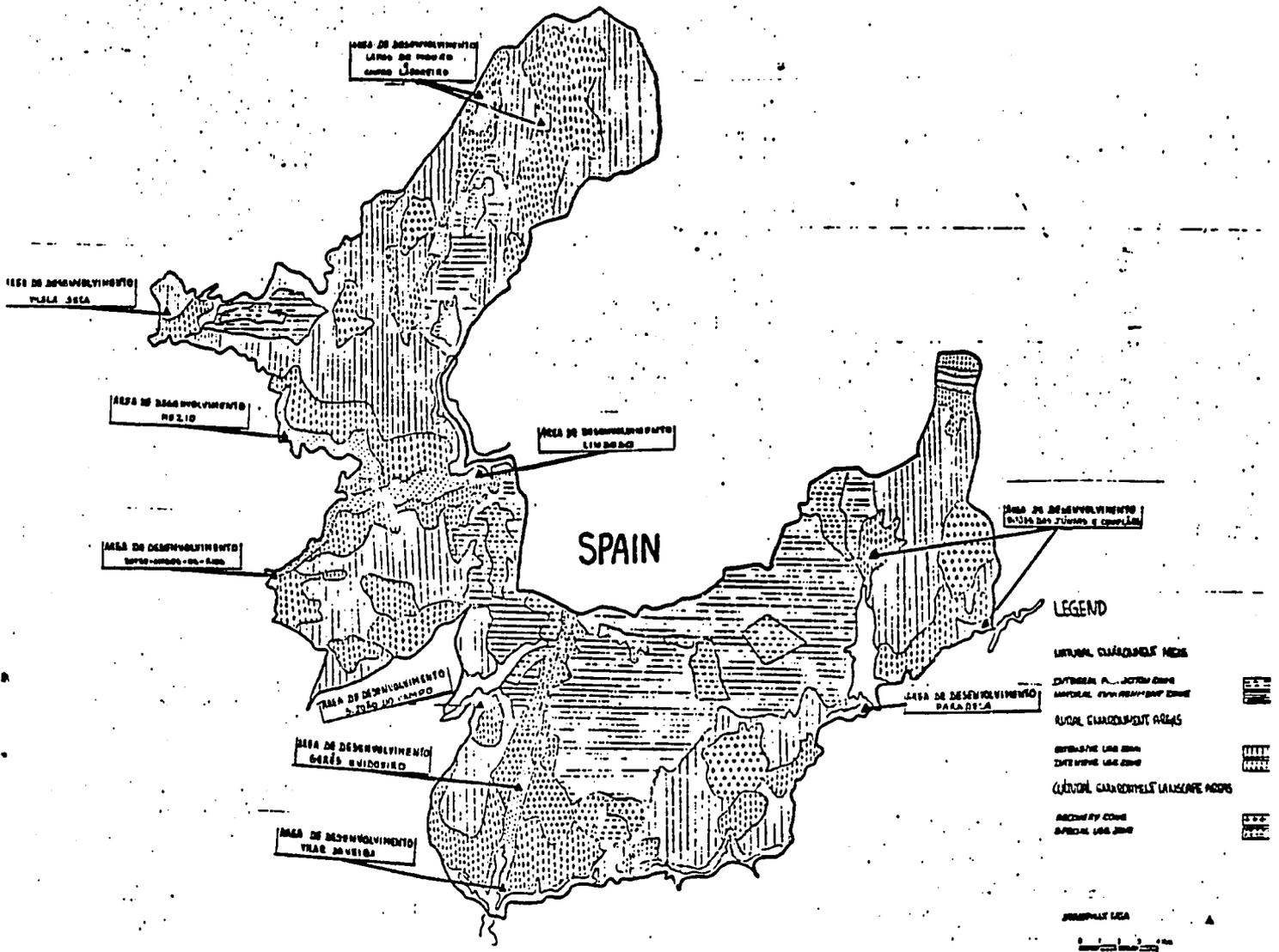
Since Peneda Gerês National Park is the only main conservation reserve in the Ministry of Agriculture and Fisheries (MAP), it requires separate legislative attention which it has only received in a most cursory manner. It still needs an Enabling Act which:

- a) Establishes the structure of the organization;
- b) Establishes the personnel requirements;
- c) Creates a Scientific Commission;
- d) Sets up the required regulations for the utilization and use regulation of the Park zoning as set forth in this Management Plan.

A separate Law is needed which enables the Ministry of Agriculture (MAP) to provide for the necessary rules and regulations for the legal control of special Park problems such as: campground regulations; carrying capacity controls of both humans and cattle; special regulations that are stricter for hunting and fishing; regulations which would establish building codes; regulate the use of floristic resources; special and severe penalties for the violation of archaeological, anthropological and historical national heritage from despoilation by foreigners and nationals alike; recreational resource use of existing reservoirs, etc.. This separate law would allow the publication of proposed rulemaking by MAP. After 60 days for public comment, it would become regulation for control unless there was excessive negative comment.

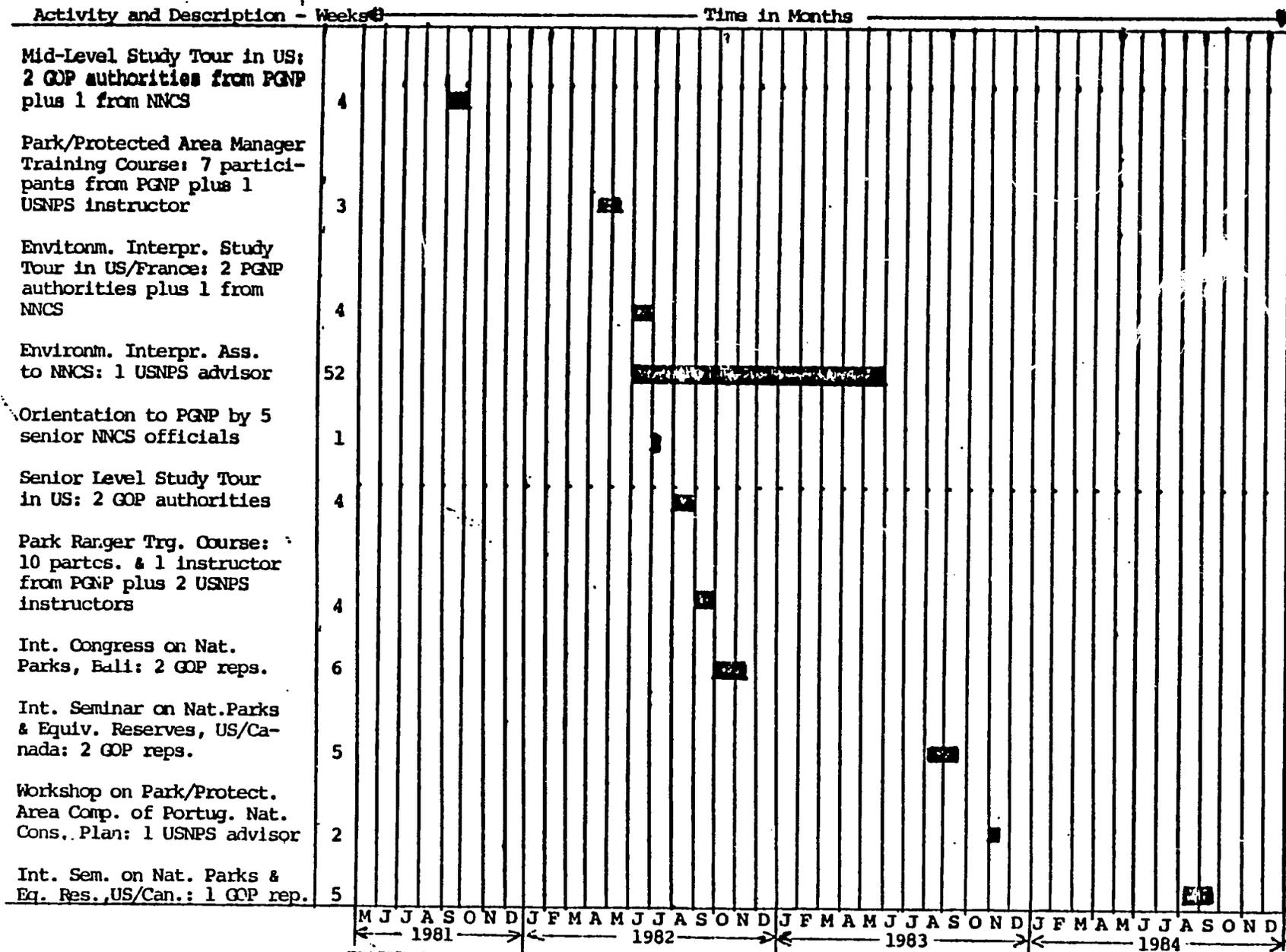
There is a need for a budget commensurate with the establishment of the new laws and to enforce the regulations. More funding is needed for radios, vehicles, audio-visual educational equipment and additional personnel.

General Development Map PENEDA-GERÊS NATIONAL PARK PORTUGAL



TECHNICAL ASSISTANCE AND TRAINING

TIME PHASE PLAN



LITERATURE CITED

- Keef, Eugene K and Coffin, Hicks, Mussen, Jr., Rinehart, and Simon (coeds.)
Area Handbook for Portugal. U.S. Govt. Printing Office, Wash. D.C., 1977
1-57.
- Klein, David R. "An Assessment Of Potential Values, Research Needs And
Management Problems of Peneda Gerês National Park, Portugal". Univ. of
Alaska, 1973.
- Macedo, Adolfo. "Poluição Estética no Parque Nacional", Giesta - Revista
dos Amigos do Parque Nacional da Peneda Gerês. Redacção, Largo da
Maternidade, 62 - 4ª Esqª, 4000 Porto, Segundo Trimestre de 1980, Ano I/nº 2,
Pages 13-15.
- Secretaria de Estado da Agricultura. Plano Director do Parque Nacional
Peneda Gerês, 1972.

APPENDIX ONE
FAUNA CHECKLIST

Principal species in Peneda Gerês National Park as derived from park records include:

Mammals:

Genus	Species	Portuguese	English
Canis	lupus	Lobo	Wolf
Vulpes	vulpes	Raposa	Fox
Martes	foina	Foinha	Weasel
Mustela	putoris	Toirão	Skunk
Meles	meles	Texugo	
Lutra	lutra	Lontra	European Otter
Felis	sylvestris	Gato selvagem	Wildcat
Genetta	genetta	Genete	
Sus	scrofa	Javali	European Pig
Capreolus	capreolus	Corço	Roe Deer
Equus	caballus	Garrano do Gerês	Wild Horse
Oryctolagus	cuniculus	Coelho	Rabbit
Lepus	capensis	Lebre	Hare

Raptors:

Aquila	chrysaetus	Águia real
Hieraaetus	fasciatus	Águia de Bonelli
Hieraaetus	pennatus	Águia calçada
Butes	butes	Águia de asa redonda
Accipiter	gentilis	Açor
Milvus	milvus	Milhafre real
Circus	cyaneous	tartaranhão
Circaetus	gallicus	Águia cobreira
Falco	tinnunculus	Pereiro de dorso malhado
Bubo	bubo	Bufo real
Strix	aluco	coruja do mato
Otus	scops	Mocho pequeno de orelhas

Amphibians and Reptiles:

Chioglossa	lusitanica	Guioglossa
Triturus	boscai	Tritão
Alytes	obstetricans	Sapo parteiro
Rana	iberia	Rã
Lacerta	schreiberi	Lagarto d'água
Anguis	fragilis	Cobra de vidro
Coronella	austriaca	Cobra de focinho alto
Natrix	maura	Cobra d'água viperina
Malpolon	manspessulanus	Cobra ratoeira
Vipera	latasti	Víbora de focinho arrebitado

APPENDIX TWO

Acknowledgements

This management plan was prepared as the result of a request of the Government of Portugal, Ministry of Agriculture and Fisheries, to the U.S. Agency for International Development. Technical expertise was provided through the International Park Affairs Division of the U.S. National Park Service. Mr. Adolfo Macedo, Director of Peneda Gerês National Park, and his staff, graciously provided access to all locations in the park, and to numerous technical and legal documents; but most importantly, to the vast accumulation of personal knowledge and experiences they as a group possess.

Planning Team Members

The following individuals contributed to the preparation of this plan:

- Adolfo Agosto Morais de Macedo, Director of Peneda Gerês National Park;
- José Luís da Silva Gonçalves, Assistant to the Park Director;
- António José Oliveira, Assistant to the Park Director;
- António Emílio Silva, Unit Manager Terras do Bouro;
- José Pires Afonso, Unit Manager Montalegre;
- Fernando Sousa Lobo, Unit Manager Ponte da Barca;
- Elias Lima, Unit Manager Arcos de Valdevez and Melgaço;
- António Martinho do Carmo Baptista, Archaeology Department Head, Peneda Gerês National Park;
- José Manuel Carvalho de Vasconcellos, President, National Nature Conservation Service Lisbon;
- Celinda G. Lucas, Program Officer's Secretary, U.S. Agency for International Development, Lisbon;
- Luz Rezende, Program Specialist, U.S. Agency for International Development, Lisbon;
- Charles W. Wendt, Chief Ranger, Yosemite National Park, U.S. National Park Service, California;
- Gary B. Wetterberg, International Park Affairs Division, U.S. National Park Service, Washington, D.C.

P0
333.783
US8
Appendix

STRATEGY STATEMENT

AID/USDI National Park Service

Portuguese Park Planning and Management Activity

(PASA No. POR-0001-P-IP-1045-00)

In compliance with the Scope of Work of the AID/NPS PASA the following strategy statement has been prepared. It includes recommendations for Technical Assistance, Training Interventions, and Material Assistance (educational training aids) as well as a Time Phase Plan, all in the format defined by AID. Its contents have been reviewed with appropriate GOP authorities in both Peneda Gerês National Park and the National Nature Conservations Service. They are linked to the priority actions proposed in the Peneda Gerês National Park Management Plan.

Where potential GOP candidates are identified for training, the same names may appear more than once due to the fact that our personal contacts were mainly confined to the park staff. This is done to indicate the level of individual desired but does not preclude the respective Ministry from selecting another suitable candidate.

DRAFTED BY:

Gary B. Wetterberg - National Park Service, USDI

Charles W. Wendt - National Park Service, USDI

DATE: May 1981

The itinerary should include in addition to the areas mentioned above, Washington D.C., Cabrillo National Monument and Yosemite National Park. Participants must have an international drivers license and be prepared to rent cars where necessary. Costs include international transportation, local transportation in the USA, and per diem. At least one of the participants must be conversationally fluent in English.

The itinerary should include, in addition to the areas mentioned above, Washington D.C. Cabrillo National Monument and Yosemite National Park. Participants must have an international drivers license and be prepared to rent cars where necessary. Costs include international transportation, local transportation in the USA, and per diem. At least one of the participants must be conversationally fluent in English.

The US portion of the itinerary should include Washington, D.C., the NPS Interpretation and Historic Restoration Center at Harper's Ferry West Virginia, Colonial Williamsburg, Shenandoah National Park and other locations, as appropriate, in the eastern USA where interpretive displays and techniques can be observed.

Participants must have an international drivers license and be prepared to rent cars where necessary. Costs include international transportation, local transportation in the USA, and per diem. At least one of the participants must be conversationally fluent in English.

The participants should also visit, en route to or from the USA the village of Albertville France which has year round living history demonstrations of Medieval cultural life. The village is near Chambéry and in Vanoise National Park. Expenses related to this segment of the trip should be paid by the GOP.

TRAINING

4) Subject/Title

Third International Congress National
Parks and Workshop on Park Operations

Objectives

1. To strengthen the management and administration of Portuguese parks and protected areas.
2. To provide appropriate Portuguese authorities with exposure to current innovations in the management and administration of parks and protected areas on a global scale.
3. To enable Portuguese authorities to identify those philosophies, techniques and standards which most directly relate to realities in Portugal, for subsequent implementation there.

Place of Training

Bali, Indonesia

Recommended Duration and Dates

Six weeks October 1982

Possible GOP Candidates

Adolfo Augusto Morais de Macedo, Director of Peneda Gerês
National Park

José Manuel Carvalho de Vasconcellos, President of the
National Nature Conservation Service

Comments

The congress is a follow-up to ones held in 1962 in Seattle and 1972 in Yellowstone. The costs will include registration fees, round trip air fare and per diem. Applications and related correspondence should be initiated several months in advance through Mr. Jeff McNeely, Executive Officer, Commission on National Parks and Protected Areas, INCN, Gland, Switzerland.

TRAINING

- 7) Subject/Title Park and Protected Area Manager Training Course - Peneda Gerês Participants
(To be paid by the GOP)

Objectives

- 1 - To strengthen the management and administration of Peneda Gerês National Park.
- 2 - To provide the senior staff of Peneda Gerês National Park with an overview of the Portuguese park and reserve system to which Peneda Gerês does not currently pertain.
- 3 - To provide collaboration between Peneda Gerês National Park and the National Nature Conservation Service (formerly National Service of Parks, Reserves and Landscape Heritage) as required in Article 4 (2) of Decree-Law No. 519-C of 1979.

Place of Training

Sesimbra or Tróia, Portugal

Recommended Duration and Dates

Three weeks April/May 1982

Possible GOP Candidates

Adolfo Augusto Morais de Macedo, Director of Peneda Gerês National Park (PGNP)

José Luís da Silva Gonçalves, Assistant to the Director PGNP

António José Oliveira, Assistant to the Director, PGNP

António Emílio Silva, District Chief Terras do Bouro

José Pires Afonso, District Chief, Montalegre

Fernando Sousa Lobo, District Chief Ponte da Barca

Elias Lima, District Chief, Arcos de Valdevez and Melgaço

Comments

The training course is being organized by the National Nature Conservation Service of the Ministry of Quality of Life. It is being held near Lisbon at a location convenient to the Natural Park of Arrábida and the Nature Reserve Estuário do Sado. Expected attendance, in addition to PGNP staff will be about 35 senior staff officials of the parks and reserves administered by the National Nature Conservation Service. Costs will include round trip transportation for seven PGNP participants plus their per diem. Instructors will include staff from the NNCS, other appropriate Portuguese institutions, and possibly individuals from nearby European countries. One USNPS instructor has been requested and is listed separately under "technical assistance

TRAINING

- 8) Subject/Title Park Ranger Training Course - Peneda Gerês Participants
(To be paid by the GOP)

Objectives

- 1 - To strengthen the management, administration and protection of Peneda Gerês National Park.
- 2 - To provide selected PGNP park guards with an overview of the Portuguese park and reserve system and the significance of PGNP within the national context.
- 3 - To provide PGNP park guards with pertinent "hands on" skills necessary to effectively carry out their duties.
- 4 - To provide collaboration between Peneda Gerês National Park and the National Nature Conservation Service (formerly National Service of Parks, Reserves and Landscape Heritage) as required by Article 4 (2) of Decree Law No. 519-C of 1979..

Place of Training

Sesimbra or Tróia, Portugal

Recommended Duration and Dates

Three weeks September 1982

Possible GOP Candidates

One park guard should be selected from each of the five administrative districts (Melgaço, Arcos de Valdevez, Ponte da Barca, Terras do Bouro and Montalegre) of PGNP by the respective District Chiefs as course participants. One individual should be designated by the Director from his staff in Braga to act as an instructor in the course. The latter should have participated in the Manager Training Course in April/May 1982. All four District Chiefs should attend as participants as should the PGNP Construction and Works Supervisor.

Comments

The training course is being organized by the National Nature Conservation Service of the Ministry of Quality of Life. It will be held near Lisbon at a location convenient to Arrábida Natural Park and the Sado Estuary Nature Reserve where field exercises will be carried out. Expected attendance, in addition to the ten PGNP participants will be about 50 other individuals, about half of whom will be applying for guard positions with the NNCS. Costs will include round trip transportation and per diem for five guards, four District Chiefs, and one instructor from PGNP. Other instructors are expected from appropriate Portuguese institutions. Two USNPS instructors have been requested and are listed separately under "technical assistance".

Costs will include round trip international transportation, per diem and salary of the USNPS instructors. The request from AID to the NPS should be made at least four months in advance to enable recruitment and processing of the advisors. The administrative arrangements should be handled through an AID/NPS Participating Agency Service Agreement (PASA).

C. MATERIAL ASSISTANCE

- 1) Services related commodities and training aids for the implementation of the educational program described in the Peneda-Gerês Management Plan for schools adjacent to the Park and school groups visiting the Park's four Management Units and Headquarters in Braga (authorized under Project Grant Agreement 150-0001).

Equipment Requisition

Item Number	Description	Approximate Price	Number of Units	SUB TOTAL
1.	Kodak Pageant, 16 mm Movie Projector, 220 Volts, 50 cycles	\$450	2 ea.	\$ 900
2.	Kodak Carousel, 35 mm Slide Projector, 220 Volts, 50 cycles (with Zoom Lens)	280	5 ea.	1400
3.	Spare bulbs for Kodak Carousel Proj., 220 Volts	25	10 ea.	250
4.	80 Slide Carousels for Kodak Carousel Projector	21	15 ea.	315
5.	Portable screens (Approx. 7'x7') with stand (collapsible)	90	8 ea.	720
6.	Overhead Projector, 220 Volts, 50 cycles	250	1 ea.	250
7.	Spare bulbs for Overhead Projector, 220 Volts	12	3 ea.	36
8.	Spare bulbs for Kodak Pageant Projector, 220 Volts	25	4 ea.	100
9.	Kodak single lens reflex camera (135) w/f 2.8, 50mm lens with built-in light meter	170	5 ea.	850
10.	f. 3.5, 125 mm Lens for Kodak camera	90	1 ea.	90
11.	f. 3.5, 35 mm Lens for Kodak camera	110	1 ea.	110
12.	f. 5.6, 300 mm Lens for Kodak camera	225	1 ea.	225
13.	Close-up rings and UV, Yellow, Red, Green, Orange and polarizing Filters	150	1 set	150
			TOTAL	\$5396

Justification: Each unit manager needs a camera to take photographs to develop slide programs for educational purposes to school groups living in his unit or visiting it. Since the management units are remote, one from another, sharing equipment is not possible with the 35 mm slide projectors. Multiple slide carousels are needed to arrange several talks and prevent excessive handing of the slides.

The 16 mm projectors will be distributed with one at Gerês and one at the headquarters in Braga. Two movies about the Park presently exist.

The extra lens and close up attachments and filters are for the biologist, archeologist and technical people at Park headquarters.

TECHNICAL ASSISTANCE AND TRAINING

TIME PHASE PLAN

