

THE «FENIX PROJECT»

A PROTECTED AREAS NETWORK FOR THE CANARY ISLANDS¹

by

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ABSTRACT

The Fenix Project was undertaken by the Government of the Canary Islands in order to revise and re-classify 104 protected areas which were previously established in 1987, but with severe legal lagoons and technical deficiencies. A parallel proposal of a new law for protected areas was developed, whose categories and criteria of protection are here briefly commented. The end result of the Fenix Project is a rational system of 132 revised areas that initiate the Canarian network of protected areas (36,6% of the archipelago's surface). Examples and statistics are given by islands.

1. Background

The first protected areas in the Canary Islands —the Teide National Park— was declared in 1954, but systematic conservation efforts really started in the last decade as an indirect consequence of the growing deterioration of nature and the landscape. Tourism over-development has been the main factor of disturbance, in particular, the third tourist "boom" in the mid 80's, that favored real estate speculation to excessive land occupation, mainly of unexploited coastal areas (v. Machado 1990). The seven main Canarian islands cover 7,500 km² and harbor 1.5 million inhabitants, to which the yearly impact of a stream of more than 7 million tourist (at present) has to be added.

In 1985, four of the nine National Parks of Spain, where concentrated in the Canaries, giving a sense of the rich and outstanding biodiversity of in this archipelago (v. Martín ??). Furthermore, some small and difuse protected areas where established under Spanish pre-constitutional Law 5/1975 of protected areas. However, the process of an overall and systematic analysis of the

needs of nature protection in the whole archipelago was duly undertaken as soon as the recently established Canarian Autonomous Administration took over the competencies on nature conservation from the Central Government of Spain (ca. 1982). But this rational approach never concluded. In spite, and due to the alarming increase of land deterioration, the Canarian Parliament decided by urgency to approve a special autonomic Law —Law 17/1987— establishing 104 new protected areas. Such a willful [voluntaristic] [eager] decision had no precedent in Spain.

An important part of Canarian territory (33.2%) came under protection and, indeed, it froze the expansion and development of tourism, at least in the more nature and well preserved areas. However, the 104 new protected areas, established under the legal umbrella of the anachronic, limited and obsolete pre-constitutional Law 5/1975, were handicapped. Two protected areas categories were applied, "Natural Park" and "Natural Places of National Interest", but their legal content and effective

¹ This paper was sent to a Conservation Symposium at Funchal but, unfortunately, it went lost.

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protection capacity was not adequately developed nor extended by the tree-article Law 17/1987. This "declarative" law brought some extra confusion due to legal technical mistakes, superficial evaluation of the land resources and particularly, to the

lack of precision in the setting of the protected areas boundaries. The protected areas were delimited by a thick black line on maps published in the Official Bulletin at a scale of 1:100,000.

Table I. Some statistics of the Canary Islands

Island	El Hierro	La Gomera	La Palma	Tenerife	Gran Canaria	Fuerteventura	Lanzarote
Extension	269 km ²	369 km ²	708 km ²	2.034 km ²	1.560 km ²	1.659 km ²	846 km ²
—cultivated	8 %	5 %	12 %	14 %	8 %	< 1%	6 %
—forested	16 %	22 %	41%	20 %	10 %	0 %	0 %
Altitud	1.510	1.484 m	2.423 m	3.717 m	1.950 m	807 m	671 m
Age	3,0 Ma	12,0 Ma	1,5 Ma	15,6 Ma	16,1 Ma	20,7 Ma	19,0 Ma
Rainfall	426 mm	410 mm	586 mm	420 mm	325 mm	147 mm	135 mm
Plant spp.	578 pl	801 pl	806 pl	1.396 pl	1.289 pl	614 pl	593 pl
Inhabitants	7.500	17.500	80.000	610.000	653.500	31.500	57.000

The parliamentary initiative was decidedly positive in the beginning, but over time the new established areas —lacking of a modern protection regime— became just "Paper Parks", in the sense of protection never implying active conservation measures. The situation turned both ecologically and socially unsustainable (legal insecurity).

2. The Fenix Project

In 1989, Spain's Parliament promulgated the general and basic legal framework — Law 4/1989— for nature conservation for the whole Spanish state, including the needed guidelines for a modern and creative legal regime on protected areas. Existing National Parks were kept under the Central Administration whereas other existing protected areas, once re-classified according to the new legal system, would be managed and developed by the Autonomous Regions.

At this stage, the Canarian Government undertook a double initiative. It drafted a specific Canarian law for protected areas covering all needed legal and technical

aspects for an effective development and management of protected areas (45 articles). The projected law entered the Canarian Parliament as PL-51 in 1990. In parallel, the Government undertook the revision of the existing 104 protected areas (excluding National Parks) in order to re-evaluate, re-shape and re-classify them according to the new set of categories proposed in the projected law. This task became the «Fenix Project».

2.1. Objectives

The Fenix Project was conceived with the specific purpose of re-classifying all protected areas declared by the Canarian Law 12/1987 and to define their limits unambiguously by means of a detailed [textual] [literal] description of their boundaries and their mapping at an adequate scale (1:5,000 or greater resolution).

2.2. Strategic approach

During the re-shaping of the former protected areas, the project team adopted the following strategic approach:

- To match the new applied category with the requirements of the real situation of a particular area (natural resources/human occupation), even by fusing or splitting the former protected areas as needed.
- To place some parks near the main towns and touristic centres, because of their importance in educational and recreational activities.
- To place the reserves in the rear-guard, surrounded by other protected areas playing the role of a buffer zone.
- To apply as homogeneously as possible the categories of protection in all islands seeking a balance among the different islands and between the two provinces⁴.
- To try to distribute the management of the areas among the three administrations present in the archipelago (national, regional and insular), in the way that no one concentrates more than 20% of the territory.
- To include the main "hot spots" of biodiversity in the categories of reserve or Natural park.
- To establish effective "corridors" between the different biodiversity centres.
- To choose whenever possible one single large reserve against several small ones.
- To achieve a realistic balance (30:70) between passive protection and active conservation areas.

2.3. *The categories of protection*

The drafted law (PL-51) considered a set of 9 protected areas categories graded by the levels of protection rigor / human intervention. The National Park category is man-

tained —being a Central Administration responsibility— and the others where inspired by international protection categories (CNPPA, 1978).

Scientific Reserves.— These are natural areas of moderate dimensions whose declaration by law aims at a complete conservation of all biotic and abiotic elements, as well as all the natural ecological processes. They correspond to Category I of the IUCN, and are equivalent to the "Strict Nature Reserve" of the Portuguese legislation of protected areas (Decree of 1976).

Ecological Reserves.— Natural and semi-natural areas of variable dimension whose declaration by decree aims at the conservation of singular habitats, concrete species, geological formations or natural ecological processes of special interest. They correspond to Category IV of IUCN and are similar to the portuguese "Partial Nature Reserve".

Sites of Scientific Interest.— These are natural areas or otherwise, generally isolated and of reduced extension, where there are natural elements of scientific interest, specimens or populations threatened with extinction, whose declaration by decree aims at facilitating vigilance or systematic management of the site so as to encourage the survival of the elements of interest. This category could fall also under category IV of IUCN. It is considered to be very flexible and useful for the protection of endemic species under threat which are frequently very localized (incl. "spot-endemics"). The Portuguese category of "Classified Site" has not exactly the same management objective, but is close to it.

Natural Parks.— These are relatively large natural or seminatural areas, not noticeably transformed by human exploitation or occupation and whose natural beauty, fauna, flora and geology in their integrity are considered to be a natural heritage of special interest for the Canary people, and whose

⁴ The Canary Islands are divided in two provinces: Santa Cruz de Tenerife with the islands of El Hierro, La Gomera, La Palma and Tenerife, and that of Las Palmas, with Gran Canaria, Fuerteventura and Lanzarote.

declaration by law aims at preventing—or eliminating, as soon as possible—human exploitation, and conserving the area for public recreation and education and for scientific research, in such a way as to be compatible with their conservation. This is Category II of the IUCN and the same as Portuguese or Spanish National Parks, but managed by the Autonomous Administration.

National parks.— National Parks are equivalent to Natural Parks, but come under the protection of the Central Government and are included in the "State Network of National Parks" as well as in the proposed "Canarian Network of Protected Areas". The four existing in the Canaries where already re-classified by Central Law 4/1989.

Table II. Protected area categories used by the Fenix Project

	IUCN	Management	Conservation	Objective of Protection
Cientific Reserve	I	Regional	Active	Maximum protection of whole habitats
Ecologic Reserve	IV	Regional	Active	The protection of some concrete species, ecological processes or habitats
National Park	II	National	Active	Global protection with promotion of public recreation and education
Natural Park	II	Regional	Active	Global protection with promotion of public recreation and education
Insular Park	VI	Mix	Active	The conservation of nature resources and the promotion of socioeconomic development in a sustainable way
Natural Monument	III		Passive	The protection of specific features
Protected Landscape	V		Passive	The scenic protection of extensive areas
Site of Scientific Interest	IV	Landowner	Semipassive	The protection of species or site-habitats in agreement with the landowner

Insular parks.— These are large territorial units in which areas occupied by man and his activities co-exist with other areas of special natural and ecological interest, thus fashioning a rural or wild landscape of great eco-cultural value and whose declaration by law has the intention of conserving the whole system, promoting at the same time the harmonious development of the local populations and the improvement of their living conditions. These correspond to Category VI⁵ (former Category VIII) of the IUCN (Resourced Managed Area), and are similar to Portuguese Natural Parks.

Natural monuments.— Characteristic formations of nature or areas in which they are to be found, whose declaration by decree aims at offering special protection owing to their outstanding singularity, rarity, cultural value, spectacular beauty or notable scientific interest. They correspond to Category III of the IUCN, and the more related figure in the Portuguese legislation is the "Classified Place, Site complex and object".

Protected landscapes.— Natural or rural areas of variable size, which have been declared as such, because of their aesthetic and cultural values. They correspond to Category V of IUCN.

⁵ The international system of protection categories was revised and approved in the last General Assembly of IUCN at Buenos Aires (January 1994).

3. Results

The final result of the Fenix Project is a reclassified system of 134 protected areas (the 4 National Parks to be added) which constitute and initiate the «Canarian network of protected areas». The most characteristic habitats of each island, all main key-areas for water captation (horizontal precipitation) and the majority of threatened species of the flora and fauna are represented in the network. Moreover, because of the extension, number and

of the extension, number and strategic position, the protected areas guarantee the persistence of a minimum "natural infrastructure" on each island, strongly needed for a sustainable development of the archipelago. A summary of the results with a breakdown by islands is shown in Table III. The distribution of the protected areas in Tenerife and Gran Canaria are given as examples in figures 2 and 3 respectively.

Table III. Protected area categories by islands (The Fenix Project)

PROTECTION CATEGORY	El Hierro	La Gomera	La Palma	Tenerife	Gran Canaria	Lanzarote	Fuerteventura	TOTAL
Scientific Reserve	1.7%	1.3%	1.3%	0.7%	21.0%	1.4%		
Ecologic Reserve	2.3%	0.6%	6.1%	2.3%	2.3%		0.5%	
National Park		10.8%	6.6%	6.7%	4.1%	6.0%		
Natural Park		4.8%	10.5%	22.3%		12.0%	10.5%	
Insular Park	46.4%			11.9%	8.5%	10.7%	10.0%	
Natural Monument	3.5%	5.0%	2.2%	1.0%	17.5%	5.7%	5.1%	
Protected Landscape	5.7%	10.2%	8.3%	4.0%	2.4%	6.7%	3.0%	
Site Scientific Interest		0.8%	0.2%	0.2%	10.5%	0.2%		
TOTAL	58%	33.6%	35.3%	49%	41.6%	41.4%	26.3%	

4. Perspectives

The projected law PL-51 failed due to an anticipated change of Government while still in discussion at Parliament. The following Government prepared his own law — although based on the Fenix Project— but with important legal changes in the drafted text. However, another sudden change of Government truncated this second initiative when it was ready to start its Parliamentary procedure (1992). At present (June 1994) there is a third proposal at debate in the Canarian Parliament. The Fenix project has been and is still the linking line between all this initiatives. Names of categories may change, but the basic conception of a system of functional protected areas stays and, hopefully, may become an operative network in the immediate future.

5. References

- CPPNA 1978 *Categories, objectives and criteria for protected areas*. IUCN publ., Gland.
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- MACHADO, A. 1990 *Ecología, medio ambiente y desarrollo turístico en Canarias*. - Santa Cruz de Tenerife, Consejería de la Presidencia, 1990, 121 págs.

CANARY ISLANDS	PORTUGAL	UICN
<p>Scientific reserve Natural land spaces of moderate dimensions whose declaration by law aims at a complete conservation of all biotic and abiotic factors, as well as all the natural ecological processes.</p>	<p>Integral Natural Reserve Areas where the protection of all aspects of nature is provided. Activities are restricted which would alter the dynamics of the respective ecosystems admittance to these areas is only permitted for administrative and scientific purposes</p>	<p>Strict Nature Reserve To protect nature and maintain natural processes in an undisturbed state in order to have ecologically representative examples of the natural environment available for scientific study, environmental monitoring, education, and for the maintenance of genetic resources in a dynamic and evolutionary state</p>
<p>Ecologic Reserve Natural and seminatural spaces of variable dimension whose declaration by decree aims at the conservation of singular habitats, concrete species, geological formations or natural ecological processes of special interest</p>	<p>Natural Partial Reserve Areas where it is intended to safeguard certain aspects of nature such flora, fauna, soil, geology and aquatic resources, taking adequate steps that allow for protection, scientific study and utilisation.</p>	<p>Managed Nature reserve (Wildlife Sactuary) Areas declared to assure the natural conditions necessary to protect nationally significant species, group of species, biotic communities, or physical features of the environment where these may require specific human manipulation for their perpetuation. Controlled harvesting of some resources can be permitted.</p>
<p>National Park/Natural Park Relatively spacious natural or seminatural areas, not noticeably transformed by human exploitation or occupation and whose natural beauty, fauna, flora and gea in their entirety are considered to be the natural inheritance of the Canaries owing to their special interest, and whose declaration by law aims at preventing or eliminating, as soon as possible, human occupation, and conserving the area for use by the public, for the education and inspiration of the latter and scientific research, in such a way as to be compatible with their conservation</p>	<p>National Park Complex of reserves established for the protection of nature and for education. They may contain strict nature reserves and partial nature reserves, surrounded by others areas of value for protection or recreation. The presence of human settlements is permitted only under special circumstances.</p>	<p>National Park Areas declared to protect outstanding and scenic areas of national or international significance for scientific, educational, and recreational use. These are relatively large natural areas not materially altered by human activity where extractive resources uses are not allowed.</p>
<p>Insular Park Large territorial units in which areas occupied by man and his activities coexist with others of special natural and ecological interest, thus fashioning a rural or wild landscape of great ecocultural value and whose declaration by law has the intention of conserving the whole, promoting at the same time the harmonious development of the local populations and the improvement of their living conditions</p>	<p>Natural Park Areas of land designated for recreation, nature conservation, landscape protection and the promotion of rural populations.</p>	<p>Multiple Use Management Area Areas declared to provided for the sustained production of water, timber, wildlife, pasture and tourism, with the conservation of nature primarily oriented to the support of the economic activities, depending of the specific zonification.</p>
<p>Nature Monument These are characterised formations of nature, or the areas in which they are to be found, whose declaration by decree aims at offering special protection owing to their outstanding singularity, rarity, cultural value, spectacular beauty or notable scientific interest</p>	<p>Classified Place, Site Complex and Object Indispensable measures are proposed to safeguard landscapes with certain natural phenomena, and places which have cultural, scientific, technical or others interest, such villages, rural communities, archeological remains, ruins, exposed geological formations, rocks, individual or groups of trees and characteristic ecological communities</p>	<p>Nature Monument To protect and preserve nationally significant natural features because of their special interest or unique characteristics.</p>
<p>Protected Landscape These are natural or rural areas of Canarian territory of variable size, which have been declared as such, because of their aesthetic and cultural values</p>	<p>Protected Landscape Areas established to safeguard rural or urban regions where characteristic aspects of the culture remain, permitted activities include agricultural, pasture and grazing, and others traditional activities. Designation is orientated towards to the social, cultural and economic well-being of the resident populations.</p>	<p>Protected Lanscapes and Seascapes To maintain nationally significant nature lanscapes wich are characteristic of the harmonious interaction of man and land while providing opportunities for public enjoiment through recreation and tourism within the normal life style and economic activity of these areas.</p>
<p>Site of Scientific Interest places which are natural or otherwise, generally isolated and of reduced dimensions, where there are natural elements of scientific interest, specimens or populations threatened with extinction, whose declaration by decree aims at facilitating vigilance or systematic management of the place in question, so as to encourage the survival of the elements of interest.</p>	<p>?</p>	<p>?</p>