

CANARY ISLANDS (MACARONESIA)



Current situation & main challenges

Socio-economic context

With a population of over 2 million inhabitants, the archipelago of Canary islands is the most populated European overseas entity. The archipelago's population density is high, around 280 inhab/Km² (2011) , far higher than the national average and this problem is worsened by its unequal distribution: Gran Canaria and Tenerife account for over 80% of the population.

The Canarian economy contributes, on average, with 4% to the national economy of Spain, and its GDP per capita is $18,873 \in (2013, 1st estimate)$, 15% lower than the national average⁽¹⁾.

The archipelago's economy is heavily specialised in the services sector, where tourism has a prominent role, contributing with 15% to the GAV (2011, provisional data)⁽¹⁾. The primary sector plays a minor role in the islands' economy, accounting for 1% of the regional GAV⁽¹⁾.

Legal and political context

The Canary Islands is an autonomous community of Spain formed by 7 major islands, divided into two administrative provinces, and 4 minor islands.

In addition to the protected area legislation, national and regional catalogues of protected species have been implemented. Inclusion on these catalogues imply the application of protection measures that range from preventing the capture to active management through conservation or recovery plans, which may include designating critical areas.

In terms of Global Agreements, Spain has concluded or ratified the main Treaties and Conventions on Nature and Biodiversity Conservation, such as CBD, Bern Convention, CITES, Bonn Convention and Ramsar Convention. Other policy instruments of direct importance for biodiversity of the archipelago are the EC Birds and Habitats directives and the Natura 2000 network, the Man And Biosphere programme and the network REDBIOS.

Facts & figures

Geography

Total area: 497.784 km² 7,447 km² (1.5%)⁽¹⁾ Land area: 5,260 Km² (Natura 2000 sites) Protected land area: (71%)

490,337 km² (98.50%) (3) Total marine area:

Exclusive economic zone

455,397 km^{2 (4)} (93%) 17,148 Km² (Natura 2000 Marine protected area (MPA and/or MMA): sites) (3.5%)

Overseas Regions (Governance/Dependency): ES

Socio-economic facts

2,082,655 (2011) (1) Total population: 280 inhab/km² Population density: 40,299 million € (1) GDP (2013, provisional):

Main income sources (2013, first estimate): (1):

repair of motor vehicles and motorcycles; transportation and storages: accommodation and food service activities (32.8%) 2. Public administration and defence; compulsory social security; education; human health and social work

1. Wholesale and retail trade; 3. Real estate activities (8.7%)

4. Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water abstraction, purification and supply; sewerage, waste management and remediation activities (7.9%)

Biodiversity

activities (18.4%)

Threatened ecosystems*: Laurel forest (laurisilva): 165 Km² estimated (only 60 Km² well conserved) (18% of its potential distribution) (

Other important ecosystems: xerophytic scrub, thermophilic forest, canarian pine forest, montane scrub, cliff vegetation, seagrass meadows of Cymodocea nodosa (sebadales)

4,021 (only 164 marine) (20.56% of total) (6,7) Endemic species**:

Pinus canariensis; Phoenix canariensis; Viola Cheiranthifolia; Canarina canariensis; Fringilla teydea, Columba bollii; Columba junoniae; Munidopsis polymorpha; Crocidura osorio.

Threatened species***: Chlamydotis undulata fuertaventurae; Gallotia bravoana;

Gallotia simonyi; Plecotus teneriffae; Crocidura canariensis.

Current conservation status

Threats and pressures on biodiversity

The Canarian biota has been extensively modified since the arrival of the human colonizers due to predation, direct destruction of habitats, over-exploitation of resources and the introduction of exotic species ⁽⁹⁾. A heavy clearing of land for agriculture (particularly sugarcane) and urban development followed the arrival of the Europeans on the XVth century. Starting in the 1970s, coastal and low-elevation ecosystems have been the subject of intensive urban/tourism development and road construction, arguably making these areas the top priorities for conservation. In addition, many species were introduced, such as feral cats, *Rattus rattus*, *Pennisetum setaceum*, *Ageratina*, *Tradescantia fluminensis* and *Eschscholzia californica*. Introduced species (invasive and non-invasive) account today for 1,434 ⁽¹⁰⁾.

At least one species of giant rat (*Canariomys bravoi*), one species of giant lizard (*Gallotia goliath*), and two birds, the Canarian quail (*Coturnix gomerae*) and the shearwater (*Puffinus olsoni*), all endemic, were extinct in the pre-Hispanic period. Since the arrival of the Europeans, at least two further endemic vertebrate species went extinct, the lava mouse (*Malpaisomys insularis*) and an oystercatcher, *Haematopus meadewaldoi*. Two additional native vertebrate species, the red kite (*Milvus milvus*) and the Mediterranean monk seal (*Monachus monachus*) have totally disappeared from the Canaries.

The currently high population density and the predominant economic model based on tourism, involving an intensive use of natural resources, still represent a clear threat to the biodiversity of the Canary Islands.

Current investments

- Approximately 42% of the Canarian land mass is officially safeguarded in a regional network of 146 protected areas of which four have the status of national parks. Two of these, the Teide NP and the Garajonay NP, belong to the UNESCO World Heritage network. All seven islands are today totally (Lanzarote, Fuerteventura, La Palma, La Gomera & El Hierro) or partly (Gran Canaria & Tenerife) UNESCO Biosphere reserves, thus contributing to biodiversity conservation on the archipelago. On the marine sector, three Marine Reserves with Fishery Interest cover the northern Lanzarote coasts and its offshore islets, the southeastern sector of El Hierro, and the southwestern coast of La Palma, adding up to 0.15% of the total marine area.
- With regard to the EU Natura 2000 Network, 231 sites have been already designated (177 SAC and 54 SPA), covering 70.63% of the territory and 3.5 % of the marine surface.
- National and regional catalogues of protected species have been implemented, which imply the application of protection measures that range from preventing the capture to active management through conservation or recovery plans, which may include designating critical areas.
- <u>Canarian Biodiversity Databank</u>: An Internet database for regional biodiversity outreach, a unique resource for fundamental research in systematics, biodiversity, education and conservation management in the Canary islands. It also provides an original platform for biogeographical and macroecological research on islands.

Critical areas for action / Investment niches

- Improve ecological restoration of natural habitats (11);
- Enhance coordinated research on local ecosystems and endemic species, as well as on invasive species (11,12);
- Ensure long-term viability of the Biodiversity Databank, the SEGA programme for the monitoring of canarian protected species, and conservation/recovery plans (12);
- Ensure adequate monitoring/management of Natura 2000 sites (12):
- Development of a List of the most dangerous Invasive Alien Species and eradication/control programmes (13);
- Control of the frequent movement of native species among islands for preventing genetic erosion ⁽¹³⁾;
- Development of a RED LIST for the Canarian fauna and flora, integrating the Regional Catalogue of Protected Species with IUCN's recommended criteria.

Important conservation activities (iconic conservation projects)

Reintroduction of a nesting population of the loggerhead turtle (Caretta caretta) on the island of Fuerteventura: project lead by the Biosphere Reserve administration and based on a partnership with the Boavista Island, in Cape Verde.

Budget: 667,000€ (2007-2013)

Activities: This project involves the transfer for various yearly campaigns of thousands of Loggerhead turtle eggs from Cape Verde to the beach of Cofete, in the south of Fuerteventura, where they hatch and where the turtles are born. The process of bringing the eggs here must be done each year for 10 years, since the turtles will begin to return to lay their eggs at the place of their birth from this age. Shortly after birth the turtles are measured, weighed and tagged to monitor their progress.

Results: The project has contributed to prevent the extinction of the loggerhead turtle in the Canary Islands (only in the first year of 2009, more than 500 loggerhead turtles were born) as well to improve the development of eco-tourism.

Reintroduction of the endemic giant lizards of La Gomera and El Hierro islands (Gallotia bravoana and Gallotia simonyi)

Budget: (*G. bravoana*, 2006-2010, 893,595€; *G. simonyi*,1991-1994, 667,000€; 2004-2009, 579,672€)

Activities: Recovery plans for the Giant Lizards, both critically endangered, have been implemented, and captive-breeding and reintroduction programmes have taken place, to increase the population size and remove its major threats (with support from the LIFE program).

Results: The El Hierro Giant Lizard was successfully reintroduced to the Roque Chico de Salmor in 1999, and subsequent reintroductions have taken place at Julan and at la Dehesa. The captive breeding of La Gomera Giant Lizard has proved successful, more than doubling the population.

Expansion of the range of the white-tailed laurel pigeon (Columba junoniae) by re-introducing it to the island of Gran Canaria

Budget: 1,401,870€ (2013-2017)

Activities: Development of management and action plans; Conservation actions (captive breeding of laurel pigeon; actions to improve forests of laurel; management of pyrophytes formations; release of the laurel pigeons into the wild; predator control in areas of release); Monitoring the impact of the project actions (population restoration and socio-economic impacts); Public awareness and dissemination of results.

Results (expected): Captive breeding and release on Gran Canaria of 15-30 white-tailed laurel pigeons per year; The creation of a viable population (75-100 pairs) of white tailed laurel pigeons on Gran Canaria through the project's captive breeding and release programme; Restoration of 1,049 ha. of potential white-tailed laurel pigeon habitat in the area of Monteverde; and Raised awareness amongst local people of the laurel forests.

Useful links

http://ec.europa.eu/environment/nature/biodiversity/best/index_en.htm

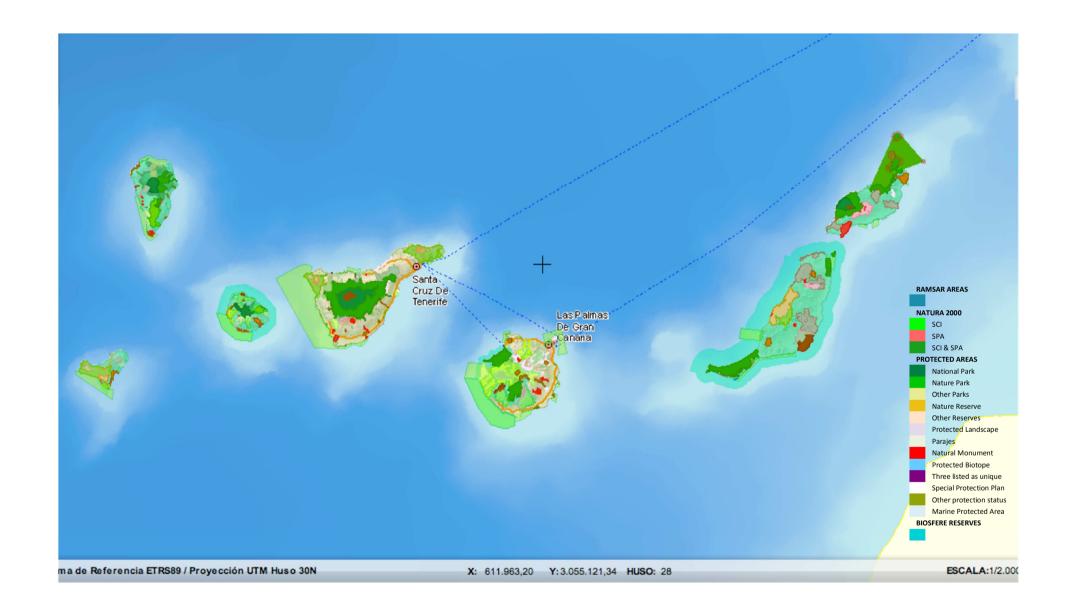
http://www.gobiernodecanarias.org/medioambiente/piac/temas/biodive

http://www.biodiversidadcanarias.es/atlantis/common/index.jsf

http://www.gobiernodecanarias.org/cmayot/espaciosnaturales/categor







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