



Enviro-Watch

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Putting a price on the planet

Our rate of consumption, our growing desire for space and transport coupled with our demand for food, water, energy and products are putting increasing pressure on the world's natural resources. Climate change and the uncertainty it brings puts a premium on virtually all remaining natural assets. Ensuring that our natural assets are restored and maintained is essential if we are to continue to be able to provide enough safe drinking water, clean air and fertile soil; fundamental survival resources for a future that holds many unknowns. These assets are also vital for our continuing economic development as our economy, key industrial and business sectors all rely, directly or indirectly, on functioning ecosystems.

The value of the environment is greater than the sum of its parts. Environmental issues, whether they relate to land, air, water, climate, flora or fauna, are often related and we need to better understand how these ecosystems work in order to know how to live sensitively within their limits.

Costing the environment?

Unfortunately, to date, natural assets have been badly mismanaged on a global scale. This is largely due to the fact that they are perceived to be free. The introduction of ecosystem services that are essential for life and believed to be worth over 33 trillion US dollars (e.g. soil fixation, nutrient cycles, carbon absorption, climate regulation and water purification) into market considerations should help to create a school of thought that is sensitive to conservation interests. This might serve to encourage new trading opportunities where buyers and sellers could exchange environmental services with a net result that would not imply the loss of natural assets.

The EU Water Framework Directive is open to such an approach. From 2010, Member States must ensure that

water pricing policies provide adequate incentives for users to use water resources efficiently. Likewise, the Environmental Liability Directive includes complementary measures to compensate for any environmental damage caused by specific activities. The Habitats Directive and EU Biodiversity Strategy - the cornerstone of conservation policy in the EU - also embrace the principle of no net loss of biodiversity.

The Polluter Pays Principle (PPP) is another useful tool that efficiently accounts for environmental costs that are otherwise ignored. This is an environmental policy principle that requires the costs of pollution, and the costs of cleaning up that pollution, to be borne by those who cause it. Its immediate goal is that of internalizing the environmental externalities of economic activities, so that the prices of goods and services fully reflect the costs of production. Economically, it promotes efficiency; legally, it promotes justice.

The implementation of these legislative instruments will serve to protect our vital and irreplaceable environmental assets.

A closer look - a price on greenhouse pollution

The EU Emissions Trading Scheme provides an excellent working example of how air pollution can be 'assigned a price tag'. Further information on the scheme can be found online at http://ec.europa.eu/environment/climat/pdf/brochures/ets_en.pdf



Monitoring Gibraltar's habitats

Gibraltar is home to a wide range of terrestrial and marine habitats some of which are practically unknown to most Gibraltarians. Mediterranean and semi-exotic woodland, scrubland, sea cliffs, sandbanks, underwater caves and reefs all form part of Gibraltar's unique environment. Some of these habitats are currently listed as protected habitats under the EU Habitats Directive and therefore require strict protection.

The Nature Protection Act - Gibraltar's main piece of nature conservation legislation - requires Government to monitor the conservation status of specific habitats and species. The Department will shortly be extending its surveillance monitoring programme to adequately assess the status of Gibraltar's marine environment.



An environment officer examining one of Gibraltar's protected reefs in Camp Bay.

Photo: A.Yome

Minister's column



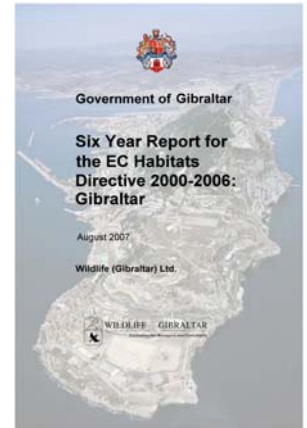
This edition of Enviro-watch focuses on the issue of biodiversity. The state of our biodiversity is a cumulative measure of the relative state of our air, water and land environments, therefore it provides us with clear indicators of where we are doing well and where we need to do more.

The Government recognises the need to establish a balance between the natural environment and development in our local setting. The value of our natural heritage is extremely important and as part of this recognition we are committed to preserving it for current and future generations. The Government is in the process of producing Habitat Action Plan for the effective management of our Sites of Community Importance (SCI) which includes the Southern Waters of Gibraltar and the Rock of Gibraltar SCIs.

The Honourable Ernest Britto OBE ED

A summary report providing details of the surveillance monitoring carried out during the period 2000-2006 was produced by Wildlife Gibraltar who are contracted by the Department of the Environment for this purpose. The report provides accurate information on the status of European listed species and habitats and is consequently being used by Government to inform its decision-making processes.

Information for the 2006-2012 reporting period is already being collected by Wildlife Gibraltar.



All the information collected by the Department from different research organisations is sent to the European Commission who is also tasked with monitoring and enforcing the conservation of habitats and species listed in the Habitats Directive. Further information on the Directive is available online from the EU's website <http://ec.europa.eu/environment>

Biodiversity and the recession

The financial crisis provides a metaphor for the ongoing decline in biodiversity. Though the nature of many Western societies is to take things such as economic growth and prosperity for granted, the recent turn of events in relation to the global economy and the implications for the world show that these assumptions may be misplaced.

There are three clear similarities. Firstly, we take our natural environment for granted and hence do not value it in an economic sense. Secondly, we are failing to recognize the problem of major degradation. Thirdly, similar to halting a global financial meltdown, the actions required to halt the loss of global biological diversity require a comparable change in attitude and coordinated effort by countries around the world.

It is in relation to this evaluation process that we need to learn from the world of economics. In order to tackle the underlying causes behind the biodiversity crisis and support politicians and businesses in a coordinated effort to tackle ecosystem degradation, we need to see an increased uptake of pragmatic approaches that economically value nature and bridge the gap between policy makers and traditional economists. Valuing our environment and establishing the true costs of our actions will undoubtedly impact on current practices and assist the conservation of biodiversity.

Coastal water sampling

You can't tell much about the quality of water simply by looking at it; most pollutants are invisible to our eyes and since coastal water is such a vast resource, monitoring water quality has its own challenges. The Department of the Environment has been collecting data on water quality along our coast for some time now. The Environmental Agency also monitors coastal water quality. Their monitoring programme focuses on the bathing water quality of our beaches to ensure that they adhere to the European Union's Bathing Water Directive.

The monitoring programme initiated by the Department of the Environment conforms to the requirements of a separate piece of legislation that has become the doctrine of EU water policy namely the Water Framework Directive.

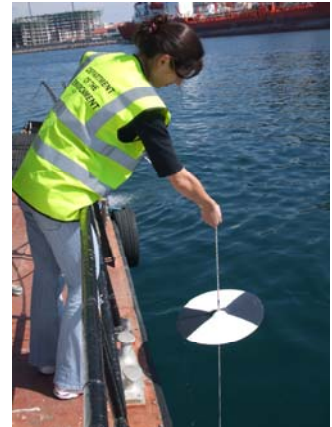
The monitoring programme developed is meant to address any pressures that could potentially affect our coastal environment. Results gathered from this initiative are providing the Department of the Environment with an accurate picture of our coastal waters. It will also provide a basis for future decision making in terms of aiding the implementation of any necessary programme of measures that need to be implemented to ensure that our water quality is maintained at good quality. Similar programmes are being developed throughout the European Union in an attempt to improve water quality status by the year 2015.



Information is also being derived by observing the surrounding environment such as the seashore and by collecting organisms that live in our coasts such as plankton.



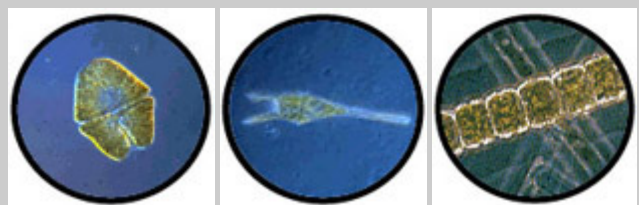
The coastal monitoring programme is by far the most elaborate exercise ever undertaken with regards to assessing the state of our coastal water. Water quality samples amongst other scientific data are being collected on a



monthly basis. A preliminary outcome of the results should be presented on completion of the coastal water management plan being drafted by the Department of the Environment. The Department, in conjunction with Aquagib is also currently involved in collecting groundwater data from the two aquifers found in Gibraltar namely the bedrock aquifer and the Northern Isthmus aquifer. Results obtained will also be presented in a public document that needs to be submitted to the EU.

Did you know?

Phytoplankton commonly referred to as plankton are microscopic plant-like organisms that live in the ocean. There are many species of plankton, each of which has a characteristic shape. Plankton grow abundantly in oceans around the world, and they are the foundation of the marine food chain. Small fish, and some species of whales eat them as food. Larger fish then eat the



© SeaWiFs project (right) & D.W. Coats (centre and left)

smaller fish. Humans catch and eat many of these larger fish. Since plankton depend upon certain conditions for growth, they are a good indicator of change in their environment. For these reasons, plankton monitoring forms an integral part of the monitoring programme being carried out by the Department of the Environment.

Biodiversity - What's it all about?

Biodiversity describes the vast range of living organisms on earth. The Convention on Biological Diversity which was signed by over 150 countries during the Rio Earth Summit of 1992, first thrust the term biodiversity into the global media. More than a decade later, biodiversity still captures the headlines.

Modern living has placed huge pressures on biodiversity, resulting in a decline in water and soil quality, variable air quality and loss of land as our growing economy and population create demand for more housing and associated infrastructure.

Human activity can result in the degradation of fragile habitats and disturbance of species if they are in close proximity to the site of interest. Recreational facilities, whether for residents or visitors alike, can place pressure on our wildlife and their habitats, unless properly managed.

Introduced species can be invasive and impact negatively on the native environment due to predation, competition or even the spread of disease. It is widely considered that invasive species are the second biggest threat to biodiversity after habitat destruction.

In Focus

Number of species recorded in Gibraltar:

- 605 plant species
- 40 terrestrial molluscs
- 46 species of butterfly
- 20 species of reptiles & amphibians
- 309 species of bird
- 16 species of mammal

Source: GONHS (2009)

The Habitats Directive

Gibraltar has transposed the EU Habitats Directive (92/43/EEC) which requires EU Member States to create a network of protected wildlife areas, known as Natura 2000, across the European Union. This network consists of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The former designation was created to protect wild birds specifically under the Wild Birds Directive (Council Directive 79/409/EEC of 2 April 1979). These sites are part of a range of measures aimed at conserving important habitats and species.

Two sites in Gibraltar have been designated as Sites of Community Importance under the Habitats Directive namely the Rock of Gibraltar (consisting of the Upper Rock and Windmill Hill Flats) and the Southern Waters of Gibraltar. These were designated in 2006 and the legislation requires that they be declared Special Areas of Conservation by 2012. This effectively affords special protection status to these sites and means that Government must take appropriate steps to avoid the deterioration of natural habitats and the habitats of species as well as avoiding the disturbance of the species within designated areas.

Gibraltar has a unique location between two continents and two seas, thus it is an important stop on a number of migratory routes for millions of birds and insects each year. It also hosts a number of species that are endemic to the Rock, such as the Gibraltar Champion which had been deemed extinct until its rediscovery in 1994. The Government remains committed to the protection and preservation of local biodiversity and to find the most appropriate ways of managing our local assets.

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Thistle



Scorpion



Tubeworm



Bee Orchid



Common Dolphin



Coral



Anemone



Short-toed eagle



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