

# BIODIVERSITY CONSERVATION

10 measures to halt  
biodiversity loss before 2010



COUNTDOWN  
2010  
SAVE BIODIVERSITY



ECOLOGISTAS  
*en acción*

# COUNTDOWN

# 2010

## SAVE BIODIVERSITY

This manual, which forms part of the Ecologists in Action campaign in support of the *Countdown 2010* initiative, sets out the principal measures that need to be urgently adopted by Spanish regional governments in order to achieve the goal of slowing down biodiversity loss.

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# The Countdown

**I**n recent decades, practically all of the world's ecosystems have undergone dramatic transformations as a result of human activity. The trend towards converting land into areas used for agricultural activity, urban zones or industrial spaces is growing and, for the moment, does not appear to be slowing down.

One of the most serious outcomes of environmental degradation with regard to ecosystem transformation is the current loss of biodiversity, which is occurring at a faster rate than at any time in human history. Many plant and animal species have decreased either in numbers, geographical area, or both. Although it is true that species extinction forms a natural part of the earth's history, the rate of human activity has increased the natural rate of the earth's activity by at least one hundred times. Within this context, it could be said that the planet is currently experiencing a global crisis of species extinction.

The Countdown 2010 alliance aims to halt biodiversity loss before 2010, a goal that has been adopted by the Committee on Biological Diversity, Heads of State of the EU at the European Council in Gottenburg, and the Ministry of the Environment and various regional and local governments within Spain. Although a slowing down of global loss of biodiversity between now and 2010 is unlikely, Ecologists in Action believes that if everyone, particularly the relevant authorities, adopted the appropriate measures, a reduction in the rate of biodiversity loss would be possible.



# Biodiversity

**B**iodiversity is the variation of distinct biological populations and species found on earth and the relationship networks they establish between them. It plays a fundamental role in the functioning of ecosystems and provides a multitude of essential benefits to human life and the rest of the living world.

Biodiversity loss has negative effects on human well-being, food safety, vulnerability to natural disasters, energy safety and access to clean water and raw materials. When the environment is altered to such a degree that the limits of one of the services provided by an ecosystem are exceeded, this action often leads to changes in other services provided by that ecosystem. For example, measures taken to increase agricultural food production usually result in less and poorer quality water available for other uses.

The main factors that trigger biodiversity loss are modification of habitat, the introduction and propagation of invasive exotic species, over-exploitation of natural resources, pollution, intensive mono-crops, deforestation, changes in hydrological cycles, and the concentration of power in the seed, food production and genetically modified crop markets.

Moreover, climate change is having serious repercussions on biodiversity and the earth's ecosystems. As climate change intensifies, the negative effects produced are expected to worsen, causing species extinction, habitat alteration, population reduction, etc.



Spain, the country with the highest level of biodiversity in Europe, is not a stranger to these effects. In the last century, at least 17 species and subspecies of animals and 24 species of vegetation have become extinct, and 15 of these were endemic. For example, in 2000 the extinction of the bucardo goat, a subspecies of the Iberian goat native to the Pyrenees, was confirmed.

Of the 582 species of vertebrates present in Spain in 2003, 136 species were under some degree of threat (24% of the total); of these 17% were mammals, 28% birds, 22% amphibians and reptiles and 15% continental fish. Among endangered mammals, species of such importance as the Iberian lynx and the brown bear stand out, both of which are in critical danger of extinction. Among birds, the Iberian imperial eagle is also in critical danger.

Currently, one third of the declared endangered species or species in danger of extinction are populations in decline, and only 10% of these species have witnessed an improvement in recent years. Although Spanish regulations state that it is compulsory to elaborate and execute plans of action (including conservation and recovery plans) for all endangered species, regional governments have only elaborated 12% of these plans.



# 1. Achieve an adequate level of conservation of species and natural spaces

**I**n view of the accelerated and unprecedented biodiversity loss that is occurring and the difficulty of slowing down the reduction of populations of species in danger of extinction, efforts to avoid habitat destruction, curb the introduction of exotic species and reduce non-natural causes of death must be intensified. .

Of special importance is the need to ensure that the relevant authorities elaborate restoration and conservation plans for endangered species, as well as management plans for protected natural areas. With this objective in mind, the principal measures to be adopted are:

- Apply the Spanish Strategy for the Conservation and Sustainable Use of Biodiversity, including the elaboration of corresponding sectorial plans.
- Elaborate and apply recovery and conservation plans for all species included in the Lists of Endangered Species and use and management plans for protected natural spaces.
- Complete the creation of the Nature Network 2000, including the elaboration of a National Plan of Monitoring and Surveillance of Nature Network 2000, the elaboration of management plans and the declaration of Areas of Special Conservation.



## 2. Reduce the emissions that cause climate change

**T**he huge increase in the emission of greenhouse gases (mainly carbon dioxide CO<sub>2</sub>) is causing a rise in the earth's temperature and provoking unprecedented climate change, which is threatening, among other things, coastal areas (due to the rise in sea level) and natural ecosystems, as well as the availability of food and water. This problem affects the services provided by ecosystems, which are indispensable for the survival of all living things. There is, therefore, an urgent need to reduce the emission of greenhouse gases by establishing concrete and quantifiable objectives.

Spain is one of the areas in Europe most affected by climate change, but it is also the one that least honours its commitments on the issue. It is, therefore, a matter of urgency to act along the following lines:

- Observe Spain's commitments under the Kyoto Protocol, reducing emissions and modifying sectorial policies, especially those of energy and transport.
- Clear leadership by the Spanish government in EU negotiations for a 30% reduction in greenhouse gases by 2020 with regard to 1990.
- Adopt management measures for those natural spaces most threatened by climate change, in order to minimize its effects.



# 3. Reduce transport needs

**T**he present model of transport of goods and people is unsustainable. It represents one of the main factors behind environmental degradation, which in turn impacts directly on habitat destruction, the increase in atmospheric and noise pollution, land occupation, land compartmentalization, greenhouse gas emissions, road death toll of fauna...

It is, therefore, essential that a new transport model be put in place, one which rejects the construction of huge infrastructures, such as main roads, motorways, high-speed trains, airports and ports, and promotes the restoration and improvement of conventional railway systems, public transport and non-motorised forms of transport. Thus, the following measures are necessary:

- Establish a new transportation model aimed at reducing the need for motorised transport. Improve access to and preferences toward forms of non-motorised transport and collective public transport.
- Progressively reduce road and air transport needs, by calling a moratorium on the construction of infrastructures, followed by the deconstruction of some existing ones (elevated or subterranean roads, road junctions...).
- Reject high-speed trains and improve the services, lines and speed of conventional railway systems.
- Apply measures to minimize the barrier effect and the risk of accidents on all roads.
- Make sure each individual transport mode assumes responsibility for the real costs generated by these forms of transport, both to society and the environment.





## 4. Reduce energy consumption and develop clean energy

**T**he energy factor is fundamental in the analysis of the causes of pollution, on a local (urban pollution), regional (acid rain) and global (greenhouse effect) scale. The use of fossil fuels (coal, petrol, gas...) destabilizes the planet's climate, and the generation of nuclear waste jeopardizes our future. Moreover, these forms of energy are non-renewable and are currently being consumed as though they were never going to run out.

A sustainable energy policy should be based on saving and efficiency, on reducing our dependence on combustible fossil fuels, and on the development of renewable energies.

- Achieve a 20% reduction in energy consumption and an increase of up to 25% in renewable energies in the supply of primary energy needs by 2010.
- Close nuclear power stations, penalize the use of fossil fuels and provide incentives for the use of clean energies.
- Create public organisms that promote energy saving at state and individual levels.
- Advance towards a decentralized model in which production, consumption and the impact produced by energy use are concentrated at the local level.



# 5. Halt Economic Globalization

**T**he globalization of the economy, a phenomenon in which Spanish institutions and companies participate, is producing serious environmental and social consequences throughout the planet. Economic development based on unlimited growth leads to an irrational exploitation of natural resources and produces ecosystem destruction, environmental and social degradation, and the privatization of genetic resources and traditional knowledge. Spanish economic policies must not regard development to include practices that have a negative impact on biodiversity, the balance of the ecosystems and people's well-being. Development must be more than just the ability to consume.

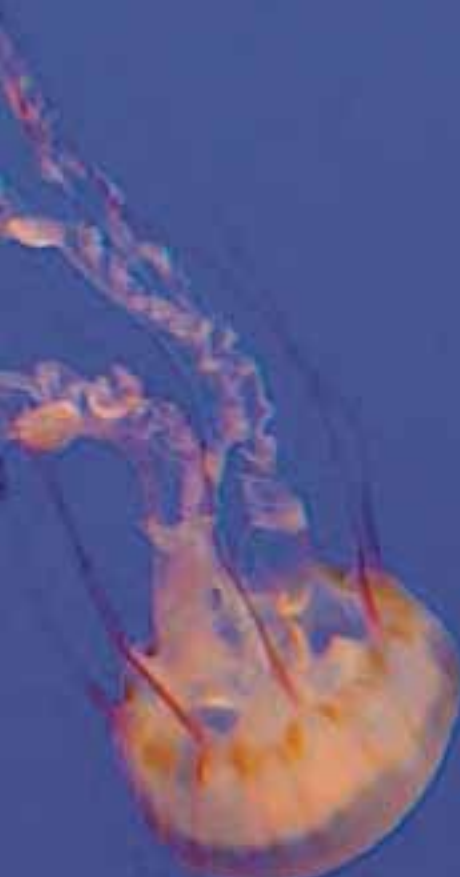
- Abolish the external debt and recognize the ecological debt that Northern countries have with those from the South.
- Apply the Spanish normative, especially the Environmental Responsibility Law, to Spanish companies working in other countries.
- Review the Spanish cooperation policy to minimize the impact of activities on the populations and ecosystems of the planet.
- Support a commercial model that promotes trade in terms of proximity and the use of goods and services produced locally, and that incorporates the long distance environmental and social costs.
- Withdrawal of the Spanish government from mega-projects that signify a serious attack not only on biological diversity but also on the rights of indigenous populations.
- Withdrawal of the Spanish government from the World Trade Organization (WTO) and rejection of measures that foster free trade, establishing strict restrictions on trade with wild species.

# 6. Adapt fishing to the available resources

**O**ur oceans and seas are suffering from over-exploitation, primarily due to fishing, which produces a serious impact on marine biodiversity. Although there has been an obvious reduction in the catches, the fishing sector has shown no signs of moderating its activity.

It is urgently necessary to adapt fishing practices to the available resources, guaranteeing their sustainability by promoting new legislation that would regulate their management and exploitation.

- Drastically reduce fishing until converting it into a sustainable activity, conditioning the exploitation of the stock to the conservation of the marine ecosystem.
- Create fishing reserves and potentiate the marine areas of Nature Network 2000 (Red Natura 2000), elaborating management plans that include the appropriate management of the fishing effort.
- Make sure that all the fishing practices used are selective, eliminating all those practices in which accidental catches, discards and the impact on the marine floor, flora and fauna are irreversible.



# 7. Make agriculture compatible with biodiversity

**T**he liberalization of agro-food trade and the Community Agrarian Policy (PAC), designed to increase production, have been responsible for undoing agro-livestock management, increasing the environmental impact and deteriorating the rural setting, especially due to the use of agro-chemicals, the unsustainable use of water, mono-crops, the ploughing of forest lands and over-grazing. Moreover, there has been a constant loss of livestock breeds and agricultural varieties.

For all of these reasons, it is necessary to modify the agricultural policy in order to make agriculture compatible with conserving nature, modifying the current distribution of subsidies, fostering extensive plantations, generalizing appropriate agro-environmental measures and developing strategies for rural development.

- Reform agricultural policy in such a way that protecting the environment, natural resources and jobs in the rural setting becomes the main objective.
- Drastically reduce the use of chemicals (fertilizers, pesticides...) in order to achieve a 20% reduction by the year 2010. Incorporate the energetic value of the crops as a criterion for allocating subsidies and granting permits.
- Prohibit genetically modified organisms.
- Support small agro-fishing farms and withdraw subsidies from the great producers of mono-crops.
- Firmly support ecological agriculture and its commercialization, as well as the recovery and promotion of autochthonous seeds.
- Reduce the use of water and place a moratorium on new irrigated land.



# 8. Halt urban growth

**T**he massive, uncontrolled and speculative construction process in the Spanish territory has signified the destruction of natural spaces. The irrational rhythm of housing construction is several times greater than the growth of the population. The concentration of the population in the ever growing cities has made them become enormous sewers of resources that are very difficult to reincorporate into the life cycles.

To halt urban growth, a new ordination of the territory is needed that impedes land speculation and effectively protects coasts and mountains, as well as natural and agricultural areas, from speculation.

- Implement urban ordination plans that reduce diffuse urbanizing and favour the concentrated use of compact neighbourhoods where citizens can access the different services on foot, by bicycle or in collective public transportation.
- Protect the lands included in Nature Network 2000 (Red Natura 2000) so that they cannot be classified as urban. The urban nuclei included in these zones must limit their urban development, leaning toward an increase in vegetation.
- Implement measures that tend to favour access to housing and the occupation of existing housing, as well as new taxes on empty houses, tax stimuli for renting, the purchase of housing by the public administrations, etc.
- Eliminate tax breaks for buying housing, especially when it is not the primary residence.



# 9. Manage hydraulic resources

**F**or decades, hydrological policies have been based on the construction of infrastructures, especially dams and water diversion projects, which seriously affect the environment, in order to increase the available resources by means of regulation projects.

Slowing down the loss of biodiversity requires a multi-dimensional hydraulic policy, an ecological management of the demand rather than an increase in the supply, and an adequate conservation of the aquatic ecosystems.

- Guarantee the quality of the water and satisfy the environmental demand in the basins, with special environmental protection of the hydrological public domain and the conservation of the riverbanks.
- Set the limits of the hydrological public domain and an ecological-forestry recovery program designed to aid in the recovery of riverbank vegetation and the re-vegetation of hillsides with native plants.
- Abandon the construction of large dams and water diversion projects, as well as the construction of cement canals that are not very effective in case of floods and avalanches of water.
- Apply economic and social measures to motivate saving water and penalize wasting or misusing it, including the rational modulation of prices to avoid regressive effects on the most unprotected sectors of society, and stimulate ecological agricultural practices that are better adapted to our climate.
- Avoid the over-exploitation of underground water, adjusting its use to the capacity for renovation and recovery of the aquifers.

# 10. Educate toward sustainability

**T**he publicity and green marketing of companies and public administrations create the fictitious idea, which people end up believing, that it is possible to make unlimited economic growth compatible with the conservation of natural areas and biodiversity.

Sustainability requires an educational process that makes it possible to understand reality in another way, distinguishes between unlimited growth and progress, and demonstrates self-limitation and respect for the cycles as a necessary step toward a sustainable future. To advance in this direction, it is necessary to:

- Incorporate in the curricular proposals of formal education, in all its cycles, modules on ecological economy that emphasize the natural dependence of human economic systems on the material and energetic flows of the planet.
- Develop guidelines for elaborating materials and textbooks that show the existing relationships between economy, society, biodiversity, ecology, etc.
- Incorporate in the programs a critical view of technology that analyzes the pros and cons of the supposed advances and incorporates the principle of caution as the basic criterion.
- Incorporate in the educational programs reflections on human needs and the different ways of addressing them, in such a way that it is possible to understand how irrational consumption not only is not a source of well-being, but also makes the future impossible.



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