



Steppe farming

Sustainable farming in SPAs of Castilla-la Mancha for steppe birds conservation

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LIFE15NAT/ES/000734



FUNDACIÓN
GLOBAL NATURE



Castilla-La Mancha



WHO

Partners and contributors

The FGN promotes sustainable agriculture founded on the basic premise of developing models that benefit both biodiversity and the local population. The following local authorities and research centres have contributed to the project coordinated by the FGN and have played a vital role in showcasing sustainable agriculture and encouraging its adoption: *Instituto Regional de Investigación Agroalimentaria y Forestal* [Regional Institute for Agri-Food and Forestry Research], via the *Centro de Investigación Agroforestal Albaladejito* [Albaladejito Centre for Agroforestry Research], and the town councils of Villacañas, Lillo, Madridejos and Mota del Cuervo. The key to the project's success, however, has been the active

contribution made by thousands of farmers who either individually or through co-operatives (such as the Cristo de Santa Ana-Velador co-operative) or associations (such as the *Asociación de Agricultores Red Natura 2000* [Natura 2000 Network Farmers' Association]) have been the real instigators of change. Crop and livestock farmers, as well as field sports enthusiasts, have adopted new models that emphasise the value generated by environmentally friendly practices.

The *Dirección General de Medio Natural y Biodiversidad de la Consejería de Desarrollo Sostenible de la JCCM* at the JCCM's *Consejería de Desarrollo Sostenible* [Regional Ministry

of Sustainable Development] has been an indispensable partner in the LIFE Estepas de La Mancha project, managing the aid linked to the Natura 2000 network management plans under the Rural Development Plan for Castile-La Mancha and incorporating measures to ensure the conservation of steppe birds within the region's Natura 2000 network. Mandatory measures to ensure that farming practices are compatible with steppe bird conservation have been adopted in Priority Conservation Areas (land mainly under cereal crops that meets the conditions necessary to support these bird populations).





The Fundación Global Nature (FGN) and the Junta de Comunidades de Castilla-La Mancha (JCCM [Regional Government of Castile-La Mancha]) launched the LIFE Estepas de La Mancha project as a way of showcasing good farming practices capable of curbing the loss of steppe bird populations and the deterioration of their habitats.

WHAT

Good farming practices for steppe bird conservation

In the past hundred years agricultural production has undergone huge transformation and growing demand for food — associated with an expanding global population — has resulted in quantity prevailing over quality. Over time, this production model has severely harmed the environment, making it now essential to strike a sustainable balance between agricultural production and nature conservation.

One example of the negative impact of conventional practices is the widespread use of treated and enhanced seeds in commercial crop varieties. These seeds are coated with chemicals to protect them against harmful soil organisms. Although this makes them more cost-effective,





the coating also impedes the development of beneficial soil organisms. These recent commercial varieties are also more susceptible to unforeseen weather conditions, pests and diseases, leading to greater use of chemically synthesised plant health products, which have a significant impact on soil and water and affect all of the other species that exist alongside them in agricultural habitats.

Farmland consolidation has facilitated mechanisation but it has also resulted in removal of the hedges and boundaries that were home to native vegetation and the bird, insect and animal populations that live in these agricultural ecosystems.

Traditional practices, such as crop rotation, have been abandoned in favour of chemical fertilisation, while extensive grazing — which helps fertilise land left fallow, prevent shrub growth on uncultivated land and

pasture, spread seeds of plants beneficial to birdlife, and create high-value natural landscapes — is disappearing at the same rate as the wildlife species associated with the age-old routes followed by shepherds and their flocks. The base of the food web is crucial in any ecosystem: without soil life, the survival of the first link in steppe birds' food chain is under threat.

The LIFE Estepas de La Mancha project strives to restore the balance between agriculture and steppe birds — species emblematic of this unique ecosystem and the region's biodiversity — by encouraging agri-environmental measures, promoting restoration of the landscape and improving the environment for steppe birds and the other wildlife that inhabits it. Agriculture that is sustainable from farm to fork, achieved through good farming practices, is the key to conserving the rich biodiversity of the La Mancha steppe.



WHERE

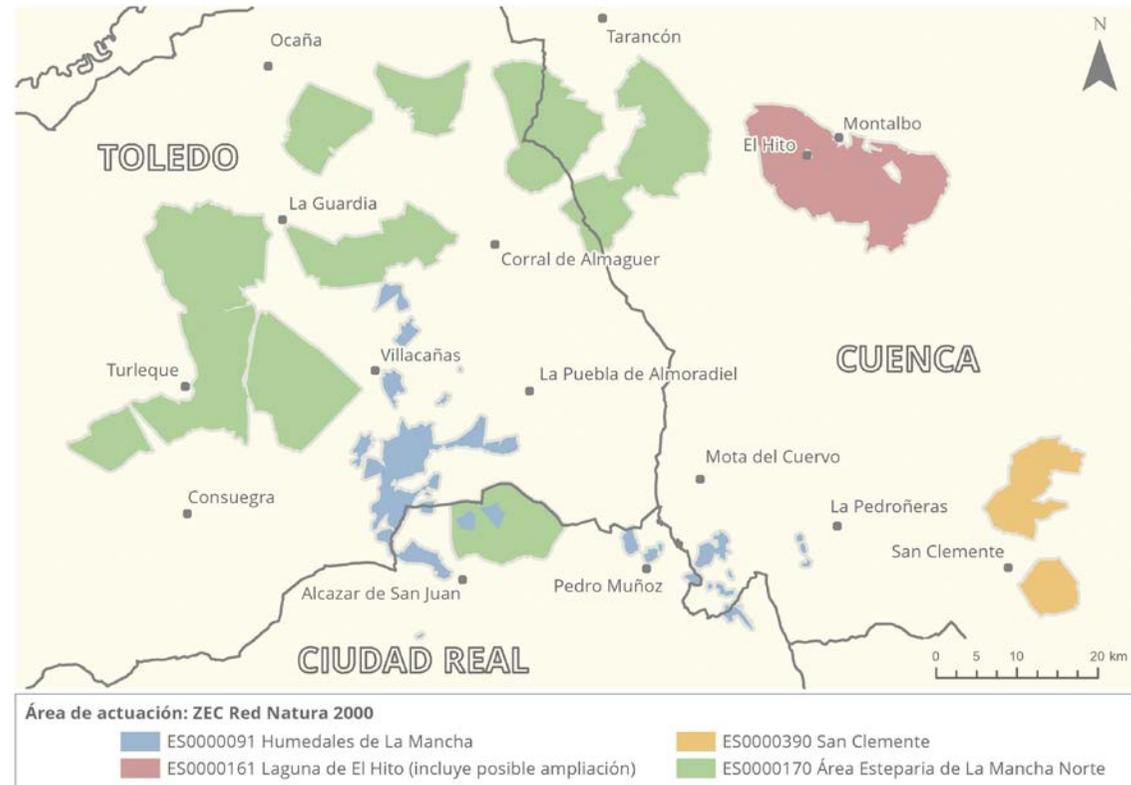
La Mancha steppe

The Iberian Peninsula's steppes are one of the last and most extensive areas where we can still see the elegant pin-tailed sandgrouse, aerial giants like the great bustard, or masters of camouflage like the little

bustard. These species emblemise an ecosystem whose survival depends on farming the land in a way that accommodates these majestic inhabitants.

The La Mancha steppe's name comes from the natural habitat it comprises — broad plains characterised by herbaceous vegetation, extreme temperatures, very low rainfall and a continental climate. In the case of the Iberian Peninsula, this steppe has been shaped by human exploitation of the land's eroded, mineralised soil to grow cereal crops.

It is an area of almost flawless plains where golden fields of cereals



stretch as far as the eye can see, a parched land dotted with transient lakes that in summer become rough patches of dazzling salt that bewilder the unaccustomed observer — extreme conditions that would not appear to favour an abundance of life. Yet in this landscape the great bustard, little bustard, lesser kestrel, pin-tailed sandgrouse and partridge — which feed on the fields of cereals and legumes — along with the little owl, barn owl and other nocturnal birds of prey — which raid the steppe's larder of insects, rodents, rabbits and hares — have all thrived. Cereals, legumes, cheeses, spices and salt were the principal foods produced and traded in La Mancha, while the local esparto and albardine grasses were used to craft textiles, utensils and tools. The Romans called this land Campus

Spartarius (bountiful esparto grass plain), indicating the close ties that humans have long had with this apparently barren landscape

As in so many other parts of our planet, the modernisation and intensification of crop and livestock farming have changed the landscape, shifted the balance within the ecosystem and altered the relationship between humans and nature.



HOW

Farmland stewardship

Land stewardship provides a means of involving landowners in conserving the landscape's natural, cultural and scenic resources and value. Under agreements signed between landowners and the FGN (as land stewardship entity), the parties strive to improve the environment over a wide area and encourage good farming practices that generate social and economic benefits.

The FGN has almost **30 years'** fieldwork and stewardship experience. As part of this project, a farmland stewardship network (16.000 ha) comprising 4 Special Protection Areas (SPAs) for wild steppe birds was set up. This network currently includes **69 farmers and landowners, 1 agricultural co-operative (1,000 farmers), 1 farmers' association (200 members), 6 field sports associations (72,671 ha) and 3 shepherds (5,000 ha of grazing, 500 sheep and 250 goats)**. The agreements signed with these stakeholders take the area managed under the LIFE project to **93,671 ha**.

To ensure the results achieved are maintained into the medium and long term, a series of **Action Plans** have been drawn up that seek to improve biodiversity on the farmland under stewardship and raise the commercial competitiveness of its output, creating added value linked to these farms' membership of the Natura 2000 network. The FGN promotes the transition from conventional



to organic farming as the basis for subsequently adopting more demanding biodiversity-enhancing practices.

In the course of this project, the members of the farmland stewardship network have marketed over 2,000 tonnes of cereals and approximately 170 tonnes/year of organic legumes produced to sustainable criteria.

Participants in the LIFE project have taken part in 51 trade events, from shows like Biofach (the world's largest trade fair for organic products) through to national environmental congresses and events showcasing locally produced food. Through this involvement, LIFE has brought the produce of the La Mancha steppe, epitomised by its high intrinsic natural and social value, from farm to fork via shows, catering colleges and high-profile gastro events.



Actions and results

1.

Farmland stewardship network: 15,500 ha belonging to the Natura 2000 network, on which we strive to optimise plant health product and fertiliser use.

2.

Production of a Code of Sustainable Supply that encourages implementation of agri-environmental measures and good farming practices that favour biodiversity (e.g. crop rotation, green cover on ligneous crops) as a way of enhancing farm management and having a positive impact on crop-associated biodiversity.

3.

Trials with 8 varieties of legumes to promote diversification of traditional crops and rotation.

4.

A total of 61 farmers have implemented good farming practices on pilot plots (20% of the area under stewardship), achieving results such as reducing fertiliser use by 10%, creating green cover, delaying harvesting, recovering stubble and straw, etc.



5.

Creation of 20 km of hedges and 14 ha of woodland planted with native shrubs to restore sources of food and shelter for wildlife. A total of 120,000 seedlings were planted spanning over 30 varieties of native vegetation.

6.

Re-planning of 5,000 ha of grassland in partnership with 3 shepherds and considering the needs of their flocks (500 sheep and 250 goats).

8.

Restoration of 3 lesser kestrel nesting sites (disused buildings).

10.

Promotion of differentiated marketing of La Mancha produce associating cereals, legumes, saffron, olive oil and pistachios with steppe bird conservation.

11.

4 bird censuses to determine the status of the steppe bird populations. Marking of lesser kestrels to identify their hunting grounds.

7.

Creation of 55 ponds to provide freshwater for wildlife.

9.

Anti-collision marking on 10 km of espaliers to prevent collisions by low-flying birds.

12.

Partnership with 6 field sports associations. Release of 2,000 partridges in protected areas within the associations' game preserves.

WHY

Communication for change

Communication and awareness-raising are essential for change. As with all LIFE undertakings, the participants have striven to convey the lessons learned and to raise awareness about the importance of good farming practices in conserving the steppe bird populations that emblemise the project. Referred to over 500 times in the press, the project's advances and results have been widely publicised in Castile-La Mancha.

More than **80 in-person meetings and workshops** were held to establish links with the main stakeholder groups. In total, 435 farmers and 252 field sports enthusiasts, as well as co-operatives, associations and local authorities, have been directly informed about the project. Important work has also been done to raise public awareness and enhance environmental education in schools. An itinerant exhibition and a variety of activities in 19 towns attracted almost 8,000 attendees.

Participating in trade fairs and events is another key way of raising awareness about the project and developing synergies with other groups. The LIFE Estepas de La Mancha project commenced with an international conference (with 50 attendees) held to gain the involvement of local and international experts. And 4 years later, at the final conference titled "Steppe bird

11 MAP VIEWERS SHOWING PROJECT RESULTS

*3 SCIENTIFIC AND TECHNICAL EVENTS
(360 PARTICIPANTS)*

5 PAPERS IN SCIENTIFIC JOURNALS

*ENVIRONMENTAL EDUCATION IN 20 TOWNS
(6,000 SCHOOLCHILDREN AND 2,000 ADULTS)*

*80 IN-PERSON MEETINGS AND WORKSHOPS WITH THE
MAIN STAKEHOLDER GROUPS*

*21 REPORTS, 200 MENTIONS ON TV AND RADIO, AND OVER
400 MENTIONS IN THE PRESS*



conservation and sustainable agriculture 2020" a total of 200 attendees logged in to an online event to share success stories and experiences relating to steppe bird and agrarian landscape conservation. In addition, information about the LIFE project has been presented at other congresses and workshops (9 national and 4 international) and published in 5 scientific journals, notably including a report on the project's outcomes in Quercus.

Another great success was the decision to directly support agricultural co-operatives in promoting their organic produce and emphasising its direct impact on steppe bird conservation. This was largely possible thanks to the extensive communication campaigns conducted. Other noteworthy initiatives include the

cooking show staged at the 2019 National Environmental Congress, partnerships with entities like the Castile-La Mancha Science Museum, or actions targeting the hospitality sector such as those carried out hand-in-hand with chef Adolfo Muñoz in cooperation with Toledo Catering College, where over 30 industry professionals learned about gastronomy and nature conservation.

Well aware that information sources are changing and digital channels are becoming increasingly important, the project set up a website (www.estepasdelamancha.es) that currently receives 5,000 visits a month, contains all the content produced throughout the project and is regularly updated with the latest news and developments. Particularly noteworthy are the 11 map viewers

providing an easily accessible overview of all the work performed in the area (e.g. censuses, fieldwork, ponds, kestrel nesting sites, tracking data, etc.).

The LIFE project received significant press coverage: 487 mentions in the digital press, 140 radio reports and 63 TV features (including items on national and regional news programmes), meaning that an estimated 3 million people have seen or heard about the project via these channels. Social media are another key means of spreading awareness of the LIFE project. It currently has over 20,000 followers, creating a strong and engaged community. Social media have facilitated and widened awareness of the project by providing constantly updated information about the actions carried out.





FUNDACIÓN GLOBAL NATURE



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