

# European Business & Nature Summit

GS11 — Engaging with biodiversity throughout the supply chain

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7 & 8 November 2019

#BusinessNatureSummit



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## Creating Value for Nature

Mr Eduardo de Miguel, Director, Fundación Global Nature



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## About us.



Since 1993:

- Wetlands and other habitats restoration.
- Sustainable agriculture and sustainable sourcing in the food industry.
- Social Corporate Responsibility



## Wetlands restoration.

More than 20 projects for the restoration of ecosystems funded by the E.U.

18,9 million euros invested in more than 14,000 ha of 110 wetlands.

### HUMEDALES ESPAÑOLES DONDE SE DESARROLLAN PROYECTOS

#### Castilla y León

- 1 Humedales de Tierra de Campos
- 2 Laguna del Oso
- 3 Lagunas del Canal de Castilla (72 humedales inventariados, acciones en 30 de ellos)

#### Comunidad de Madrid

- 4 Humedales del Parque Regional del Sureste (el Parque cuenta con más de 200 lagunas pero se trabajaron 3)

#### Castilla-La Mancha

- 5 Laguna del Hito
- 6 27 lagunas de La Mancha Húmeda, situadas en los complejos lagunares de Alcázar de San Juan; Manjavacas; Pedro Muñoz; Lillo; Villacañas; Quero; Villafraña de Los Caballeros; Las Mesas y Las Pedroñeras

#### Galicia

- 7 Laguna de Louro (Muros)

#### Asturias

- 8 Turberas de Roñanza (Llanes)

#### Comunidad Valenciana

- 9 L'Albufera de Valencia
- 10 Prat de Cabanes-Torreblanca
- 11 Marjal dels Moros
- 12 Marjal de Pegó-Oliva

#### Extremadura

- 13 Humedales del Guadiana
- 14 Embalse de Talaván; estanques mediterráneos en Talaván, Hinojal y Trujillo





## Wetlands restoration.

Fuentes de Nava wetland. More than 300 ha re-flooded. 40,000 ducks and 30,000 geese winter again.



## Wetlands restoration.

Boada and Pedraza de Campos wetlands: re-flooded after their drainage. 40 ha each one of them.

La Mancha wetlands: 27 wetlands. Purchase of 274 ha. 400 ha restored with more than 100,000 shrubs planted. 8,800 students trained. Hydraulic works to improve flooding.

LIFE Aquatic warbler: 12 wetlands. Castilla y León, Castilla-La Mancha and Valencia Regions.



## **Habitats restoration (wetlands). New markets and products, food, tourism, ...**

### **1. Compensation measures.**

To date, companies only work on carbon footprint compensation. On few occasions they consider the possibility of compensating their water footprint or the one they cause on biodiversity.

There are many opportunities to unify the compensation of these three footprints in common projects, in which the conservation of important natural habitats (biodiversity) leads to the joint recovery of carbon and water, as well as improving the image and reputation of the company in the markets.





**Habitats restoration (wetlands). New markets and products, food, tourism, ...**  
**Carbon footprint compensation:**

Mediterranean wetlands may act as carbon sinks if they are properly managed.

Mechanical removal: reeds are mowed, crushed and composted, and given to farmers who use it as a natural fertilizer or as a bed for livestock.

They perceive this improvement of biodiversity and hydrological works as a mutually beneficial project. They even see the possibility of using it as a tool for differentiated marketing of their horticultural productions.





**Habitats restoration (wetlands). New markets and products, food, tourism, ...**

**Carbon footprint compensation. The wetland's role may change from gas sink to gas emitter:**

Reed mowing in 300 hectares, converting vegetable matter into compost, avoid the emission from 500 to 600 tons of CO<sub>2</sub>. The use of this resource locally, reduces the need of transport and its emissions. Not acting is not a conservation measure. The excess of organic matter may cause the basin clogging, loss of water quality and gas emission because of burning or decomposition.

Paludiculture as a CAP measure.



**Habitats restoration (wetlands). New markets and products, food, tourism, ...**  
**Water footprint compensation:**

i.e. A very cheap hydraulic work may re-flood 60 ha of a shallow temporary Mediterranean wetland:  
 $300,000 \text{ m}^3$  = water footprint of a big beer industry.



**Habitats restoration (wetlands). New markets and products, food, tourism, ...**  
**Biodiversity footprint:**

In addition, the opening of these habitats through grazing or mechanical harvesting, creates new habitats for some of the most European endangered species, as the aquatic warbler and other threatened marsh species and numerous duck species that need these open areas.





**Habitats restoration (wetlands). New markets and products, food, tourism, ...**  
**Biodiversity footprint:**

Based on the FGN's land stewardship network (15 properties, 7,000 ha in Extremadura)  
Drinking water ponds opened for animals. They have become an important habitat for many rare species of flora and wildlife (Priority Habitat for the European Union)



**Habitats restoration (wetlands). New markets and products, food, tourism, ...**

**2. Creating value for market products, such as:**

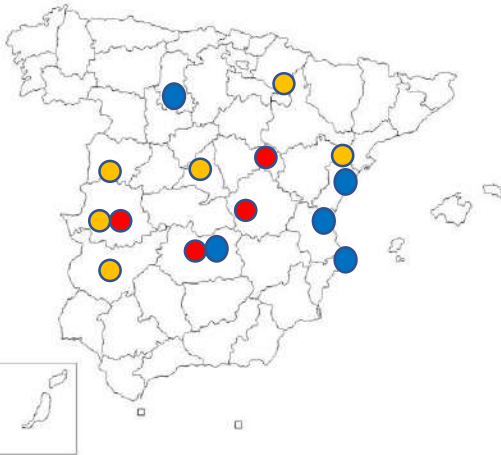
- organic/natural fertilizers,
- tourism,
- animal products through the use of grazing animals to open the wetland basin,
- ...



## Inclusion of extensive livestock as a basic element of landscape maintenance. Improvement of pastures biodiversity and cleaning of wetlands.

### FGN Projects:

- Grazing for wetlands management
- Grazing for Mediterranean and steppe ecosystems
- Next possible projects





## Farming sustainability, our approach.

### Sustainable agriculture, a shared responsibility

- Helping to fill the gaps between market demand and producers.
- Understanding challenges and providing tailored solutions.
- Understanding sustainability as a path and not as an objective.

### Supporting farmers

- Support vs. impose. Voluntary agreements.

### Agri-environmental indicators, assessing objectively

- Approaching sustainability transparently, objectively and tracking
- continuous improvement through indicators.

### Wide perspective on biodiversity at farm and landscape levels

- Addressing all the elements with direct and indirect effects on biodiversity.



## LIFE Food and Biodiversity, an example of our applied research activity.

Project devoted to including the best practices for biodiversity conservation in the most relevant labels and food standards of the agri-food industry. Screening of +100 food standards, +50 pilot projects covering 6 farming systems both in EU and tropical areas.



# LIFE Food and Biodiversity, an example of our applied research activity.

## 1. Companies/Standards/Labels



## 2. Partners from Pilot Projects



## 3. Public Funders





## Sustainable sourcing, from theory to practice.



### **Creating Shared Value Program for Vegetables and Herbs in ZEMENA**

Since 2014, FGN is responsible for designing the CSV program for raw materials in the category of vegetables and herbs in EU, Middle East and North Africa. Elaboration of the Nestlé Agricultural Guidelines.



### **Development of agri-environmental criteria for 400 dairy farms.**

First dairy company in Spain. Program for covering 100% of farms supplying the company. +35 agrienvironmental indicators organized in 6 drivers.



### **Improvement of biodiversity in olive groves.**

Cooperation with the company in pilot farms for testing best options for preserving biodiversity at farm level in olive oil production.



### **FGN own program for preserving endangered birds in pulses production.**

Private program with farmers in Central Spain for demonstrating that the implementation of biodiversity conservation measures helps to recover endangered bird population and increasing added value of traditional leguminous crops (lentils and chickpeas). Average 70 tones/year sold through specialized retailers.

Our business case: organic lentils and chickpeas produced to preserve biodiversity.



## Based in our land stewardship network.

Fundación Global Nature has signed agreements with more than 400 farmers and some big cooperatives in Central Spain: 24.000 hectares.

- 4 to permit flooding programs around wetlands.
- 21 in 5.744 ha of dehesas in Extremadura.
- 57 to implement plans against climate change.
- 32 to implement adaptation plans against climate change.
- 5 with big properties and companies to assess biodiversity indicators.
- 127 to plant hedges and other ecological infrastructures.
- 55 to implement other agri-environmental measures.
- 1 in Templeque (Toledo), Farmers Association "Natura 2000": 170 farmers, 13.000 ha.
- 20 to test sustainable sourcing guidelines. (Nestlé Project).





## Our business case: more than lentils or chickpeas.

Spanish extensive cereal crops, in rotation with local legumes, house the last European populations::

- Dupont's lark (*Chersophilus duponti*), 100% of its population.
- Iberian Pin-tailed sandgrouse (*Pterocles alchata*). 90% of its population.
- Great bustard (*Otis tarda*). 50% of its population.
- Little bustard (*Tetrax tetrax*). 70% of its population.
- Eurasian Stone-curlew (*Burhinus oedicnemus*), 25-50% of the European population.
- Lesser kestrel (*Falco naumanni*). 60% of its population.
- Red partridge (*Alectoris rufa*), has reduced its population more than a 50% due to the disappearance of these rotations.

Exportation to Germany: 50-70 tons/year. Sales in Spain: 20-25 tons/year.

New objectives: almonds, wine, olive oil, saffron or pistachio.



## **Our business case: more than lentils or chickpeas.**

Key messages:

If you eat legumes or meat fed with European legumes (local protein):

- you fight against climate change.
- you preserve biodiversity.
- you support European and Spanish farmers.
- you eat healthier.



## Our business case: more than lentils or chickpeas.

### Economic value of ecosystem services:

Conventional lentils = 0.60 €, price received by the farmer receives.

Organic lentils + biodiversity conservation and employment = 1.10 € (we assure a three years contract).

The Rural Development Program (CAP) grants Natura 2000 areas with crops that benefit steppe birds: 208 €/ha.

Legumes production (dry land): 800 kg/ha in a two years rotation: 208 €/ha/400 kg/ha and year = 0.52 €/kg.

### The extra “social value + biodiversity” received by the farmer = 1.02 €/kg.

*A saving in fertilization should be added due to the optimization of nitrogen fixation by legumes, at least 15% less fertilizer.*

The consumer pays: 1€/kg for conventional legumes, and up to 3.3 €/kg for “ecological + conservation” legumes.





## Measures applied in Central Spain in collaboration with farmers.

### Green infrastructures:

- More than 10 km of hedges planted in steppe areas.
- Objective, 20 km and 120.000 plants.
- More than 50 ponds.



## Measures applied in Central Spain in collaboration with farmers.

- Wild vegetation strips to promote biodiversity and biological pest control.
- Reduction of chemical pesticides.
- Promotion of organic crop systems.
- Recovery of local varieties. Recovery of ancient varieties of legumes that are kept in gene banks.





## Measures applied in Central Spain in collaboration with farmers.

- Green covers in tree crops to avoid erosion and promote biodiversity.
- Cover crops.





## Measures applied in Central Spain in collaboration with farmers.

- Fallow-lands and reserve areas for fauna and flora.
- Promotion of rotations.
- Annual leaf and soil analysis: specific fertilization plans for each farmer.
- Pilot tests of green covers in almond crops with legumes (lentils).



## **Measures applied in Central Spain in collaboration with farmers.**

- Proposals for new Rural Development Schemes and Grants.
- Creation of a new Farmers Association called Natura 2000 (Tembleque)
- Proposal of a new Regional Plan for the Protection of Steppe Birds Conservation.
- Sustainable Sourcing Guidelines for Cereals and Legumes addressed to the Food Industry.





## Other examples of business cases: new sustainable crops.

Steppe habitats in the Northeast of Castilla-La Mancha.

Conversion of cereal crops into other crops (lavender, as a permanent crop):

- Protection of Dunpont's lark
- Less use of fertilizers and pesticides.
- No need to plough (semi permanent crop): less erosion.
- Tourism services.
- **A more profitable crop. Better social impact.**

*Finance by Naturgy and ENEL (compensation measures)*





