

Ecosystem services evaluation of quarry restoration, Yepes

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02/05/2018

Why to restore?

Image

Risk

Stakeholders

Access to
finance

Compliance

Company
Commitment
**Net positive
impact
by 2030**

Legislation



How do you measure your relation with natural capital?

Provide information to stakeholders

Disclosure Finance sector

Metrics





LafargeHolcim goals

To show the hidden value of biodiversity



Identify ecosystem services and their beneficiaries

Value social, environmental and economic benefits from restoration measures

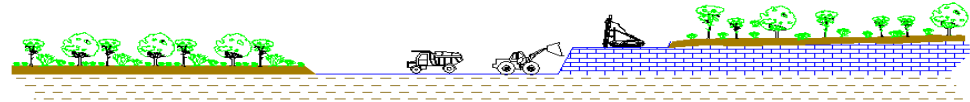
Understand, communicate and spread the ecologic restoration process



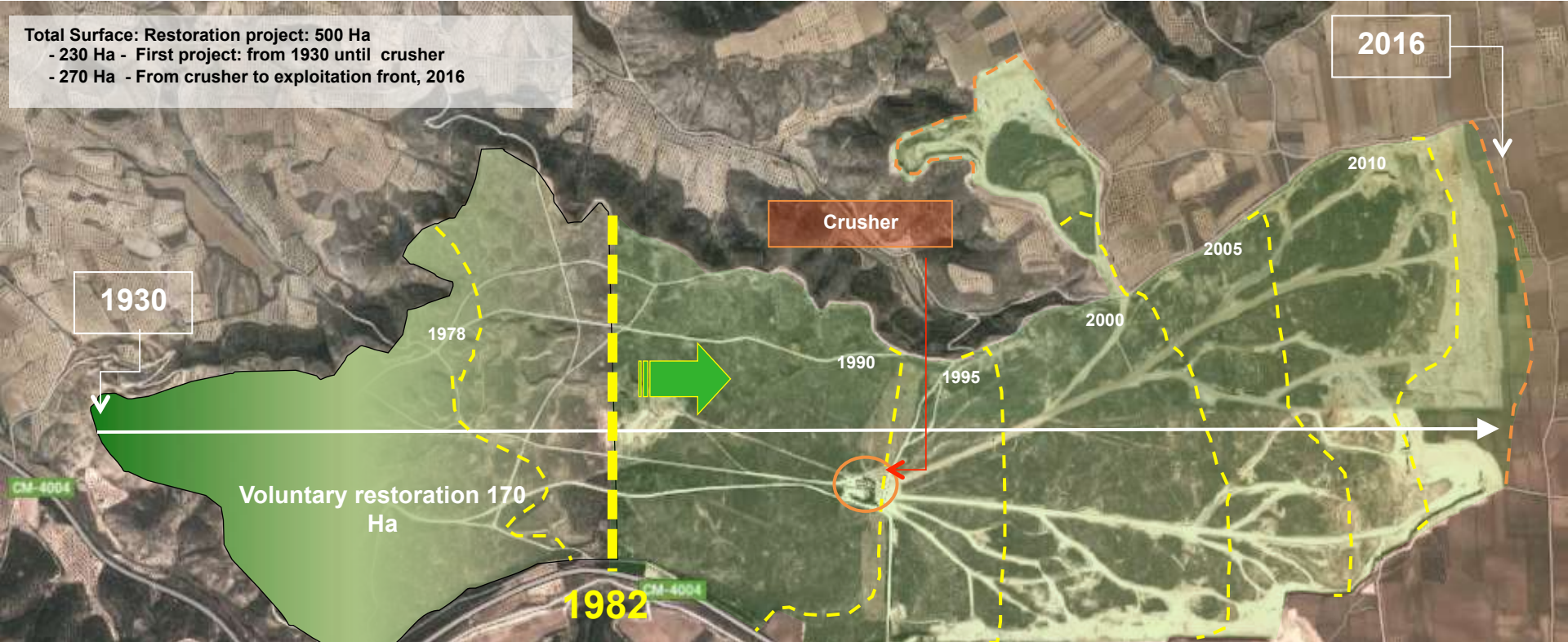
1930

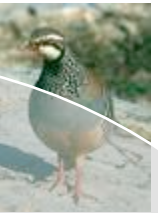
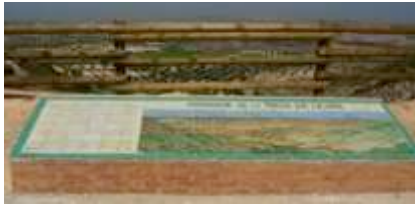


2016



Total Surface: Restoration project: 500 Ha
 - 230 Ha - First project: from 1930 until crusher
 - 270 Ha - From crusher to exploitation front, 2016

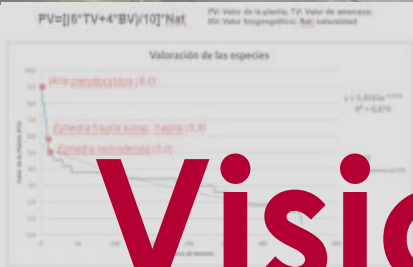




RESEARCH IN ECOLOGICAL RESTORATION



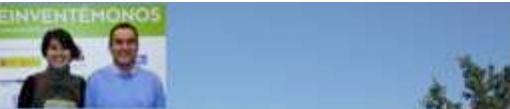
Comunidad vegetal:	Jaramagos <i>Ionolobus-Erucetum vesicariae</i>	Cardos <i>Carthametalia lanati</i>	Centaureas <i>Carthametalia lanati</i>	<i>Helichrysum-Santolina</i> <i>Salsolo-Peganion harmalae</i>	Tomillar interior <i>Sideritido-Salvion</i>	Tomillar exterior <i>Sideritido-Salvion</i>	Espartal <i>Arrhenathero-Stipetum tenacissimae</i>	Coscojar <i>Daphnognidii-Quercetum cocciferae</i>
Edad:	0	5	14	25	>25	?	?	?



Vision



More than 360 species



PUBLIC SPACE



AVIFAUNA BIODIVERSITY



LafargeHolcim



ECOLOGICAL BEEKEEPING



RAISE AWARENESS

Framework

IDENTIFY ENVIRONMENTAL
RESOURCES



IDENTIFY ENVIRONMENTAL
SERVICES



CLASIFY ENVIRONMENTAL
SERVICES



ECONOMIC VALUATION



COST-BENEFIT ANALYSIS

EC@CSA
Reserva de Biodiversidad





The project has **classified** the main ecosystem services provided in the restoration project according to CICES ⁽¹⁾

PROVIDING SERVICES

- **Food supply:**
 - Honey
 - Hunting species
 - Mushrooms
 - Medical and aromatic plants
 - Almonds, olives and grapes
 - Dry-land farming
- **Biomass supply**
- **Wood**

REGULATORY SERVICES

- **Atmospheric regulation:**
 - Carbon storage (land and trees)
- **Polinization**
 - **Erosion control**
 - **Gene pools**

CULTURAL SERVICES

- **Scientific knowledge & biologic:**
 - Scientific studies
 - Experimental restoration hub
 - Training & visits
 - Aesthetic & Sports enjoyment:
 - Mushrooms, shooting, landscape, sports...
- **BIODIVERSITY**

Outcomes

Outcomes

356.000
euros

anual total

540
euros

por hectárea

3
euros

15.000
personas

Más de
100.000
euros/año

361
especies

VALOR ECONÓMICO ANUAL
de los **SERVICIOS**
ECOSISTÉMICOS



BENEFICIO
AMBIENTAL
por cada €
invertido en
restauración



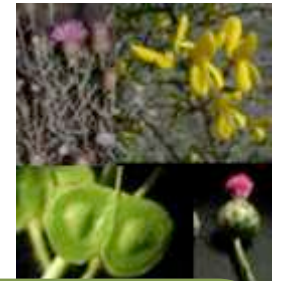
BENEFICIO
SOCIAL



Rehabilitación



Biodiversidad



INNOVATION: The project provides high valuable innovation in terms of ecosystem services valuation, providing innovative decision-tool mechanisms and valuing intangible tools

Next steps

BUILD A NEW TOOL

All quarries in Spain

BIODIVERSITY

Value

Account



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**MANY
THANKS**

