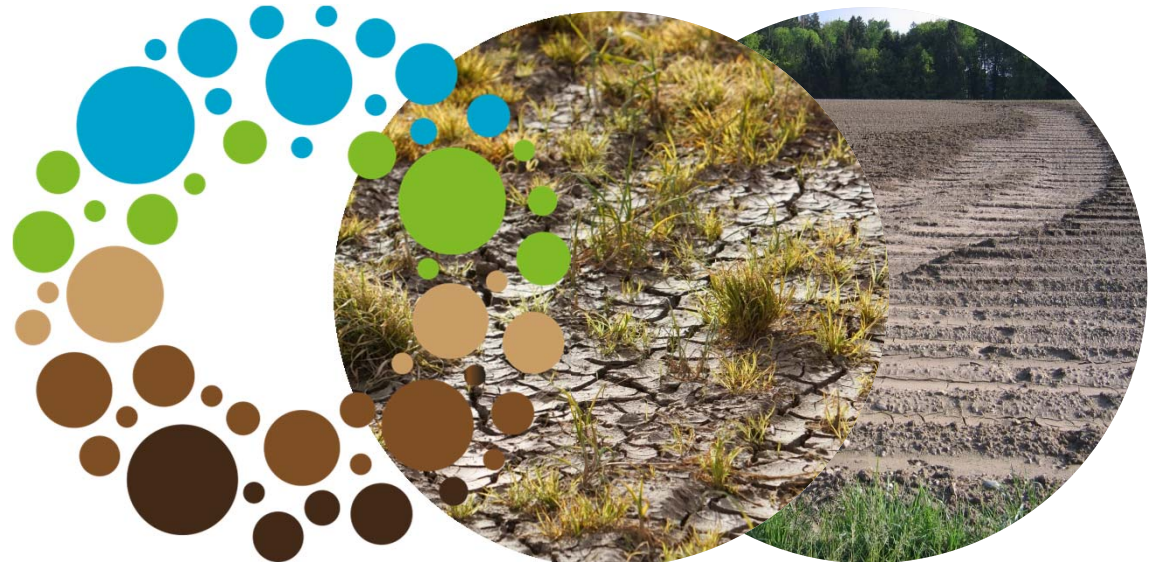


# Impact of measures to remediate soil contamination and provide ecosystem services

Guadiamar study site, Spain

29 May 2017, Teodoro Marañón and IRNAS-CSIC team



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Plenary project meeting ICELAND  
May 29<sup>th</sup> – June 2<sup>nd</sup>, 2017



# Soil threat: Soil contamination

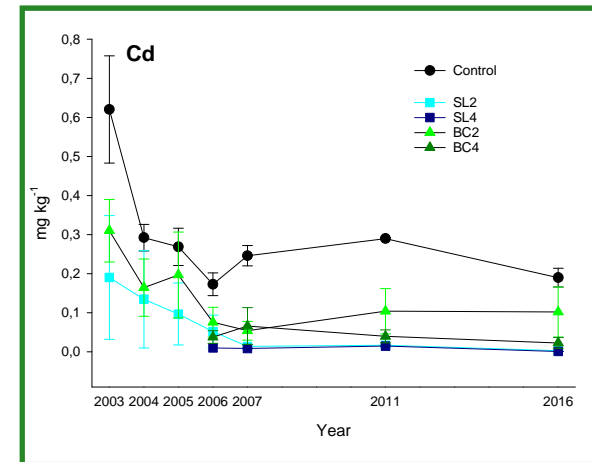
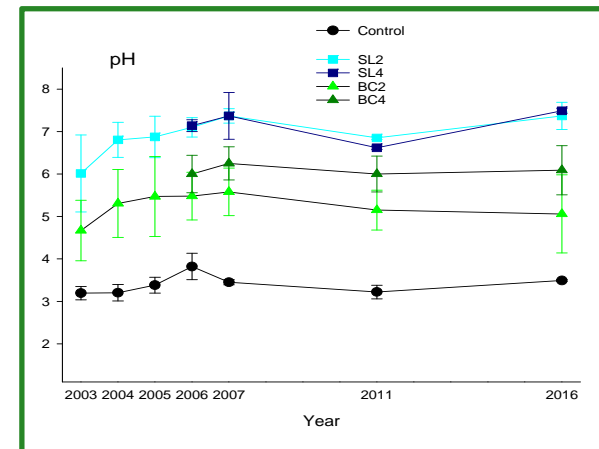
- Soils contaminated by a mine spill
  - Failure of the tailing dam wall (April 25<sup>th</sup> 1998)
  - 4-5 million m<sup>3</sup> of toxic tailings flowed down the Guadiamar river
  - 4,634 ha of contaminated soil by the mine spill



# WP6 – Effects of measures

## ■ (A) Amendment addition

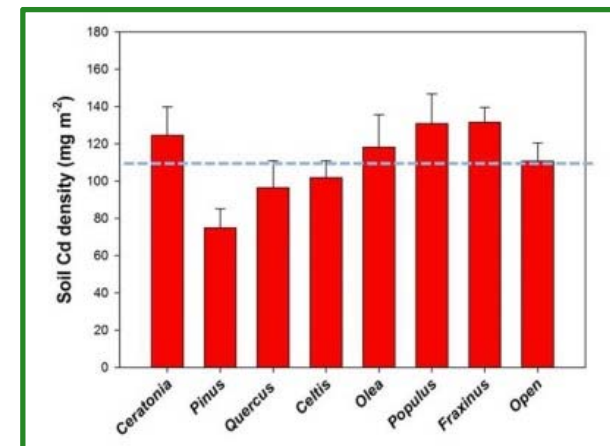
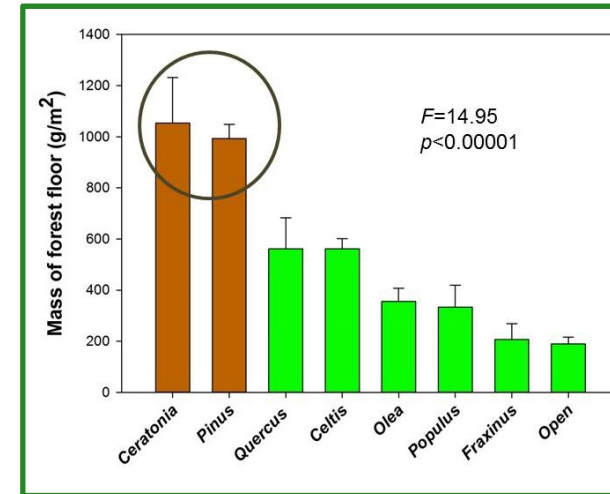
- Change of soil property:  
Increase of pH
- Effect on soil threat:  
Decrease of bioavailability of trace elements



# WP6 – Effects of measures

## ■ (B) Tree plantation

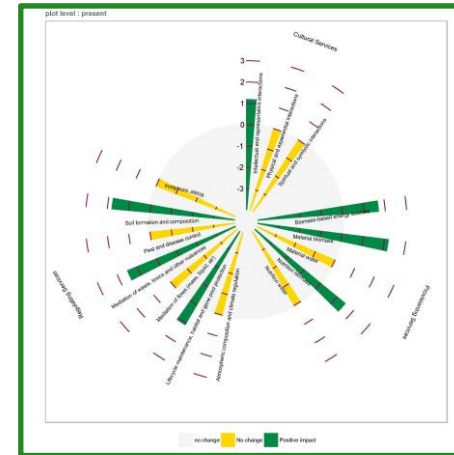
- Change of soil property:  
Increase of organic matter.  
Differences among tree species (treatments)
  
- Effect on soil threat:  
Decrease of bioavailability of trace elements.  
Differences among tree species in phytostabilization of soil trace elements



# WP7.1 – Provision of ecosystem services

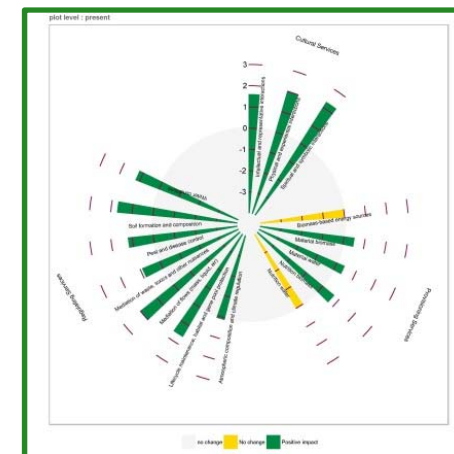
## ■ (A) Amendment addition

- Evaluation of one treatment: Sugar lime
- Short-term effects



## ■ (B) Tree plantation

- Evaluation of one treatment: Wild olive (*Olea europaea*) plantation.
- Long-term effects.



# Dissemination activities

- Field visit to experimental plots by students and researchers
- Scientific publications and congress communications
- Dissemination in media platforms: RECARE HUB, Facebook, Twitter



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# 15-Guadiamar study site

## Partner 19- IRNAS-CSIC

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Thanks to the  
Plant-Soil Research  
Group of the IRNAS-  
CSIC

And thank you for  
your attention!

