

Water reclamation plan for Andalucia



Final conference

Network for effective knowledge transfer on safe and economic
wastewater reuse in agriculture in Europe - GA 818088

Andalucía

Rangeland



Rainfed cereals



Olive



Agricultural systems

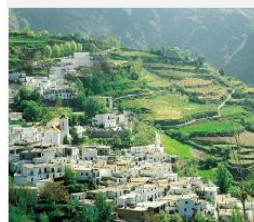
Irrigated open



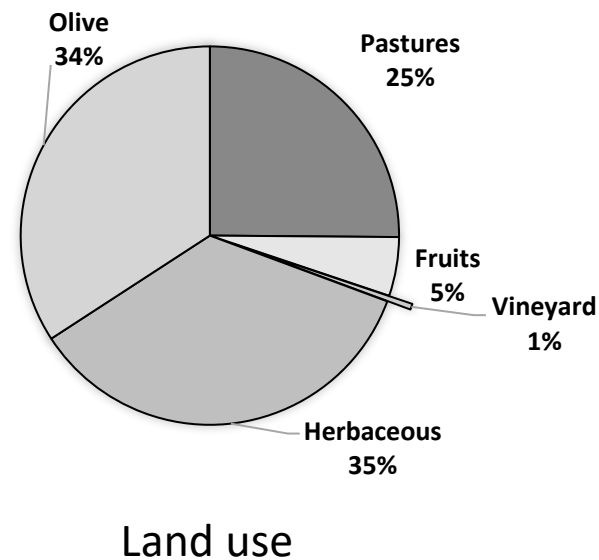
Coastal



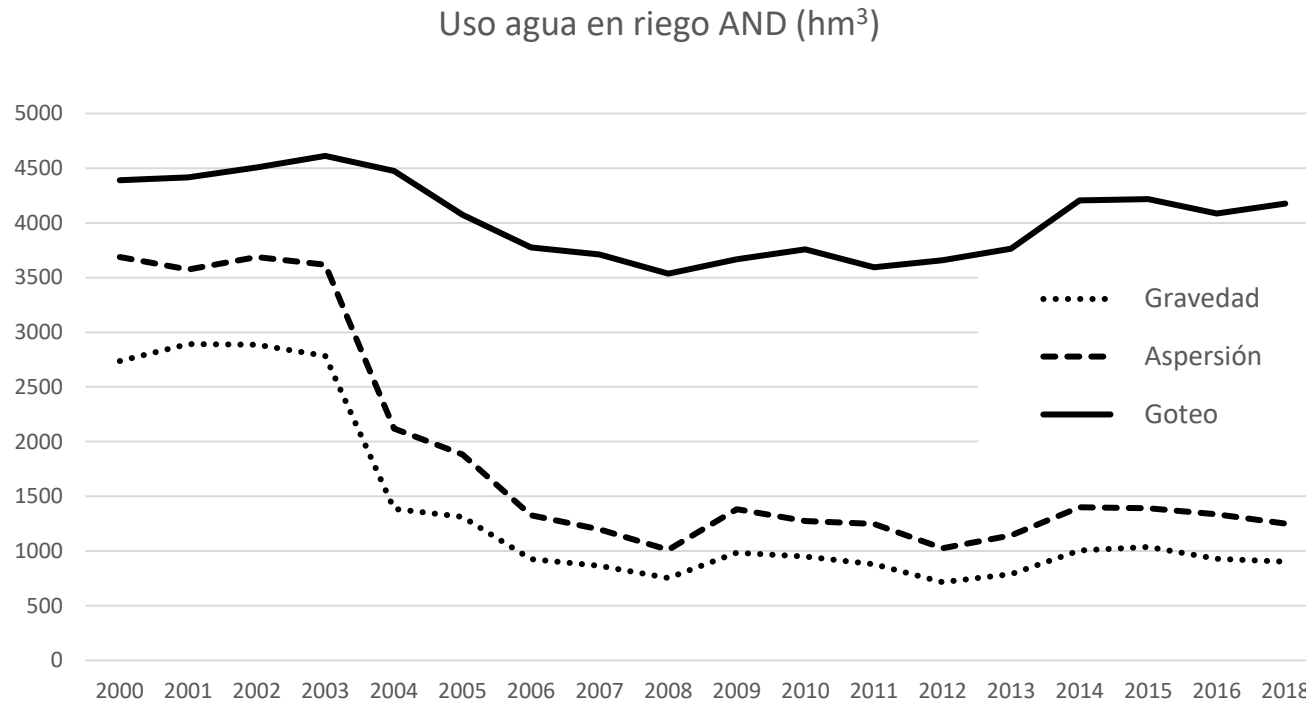
Mountain



- **Area:** 87.5 th km² (17% de la Spain, 2% of UE28)
- **Agricultural value added is**
 - 6% regional GDP
 - 37% Spain (up 30% 2000)



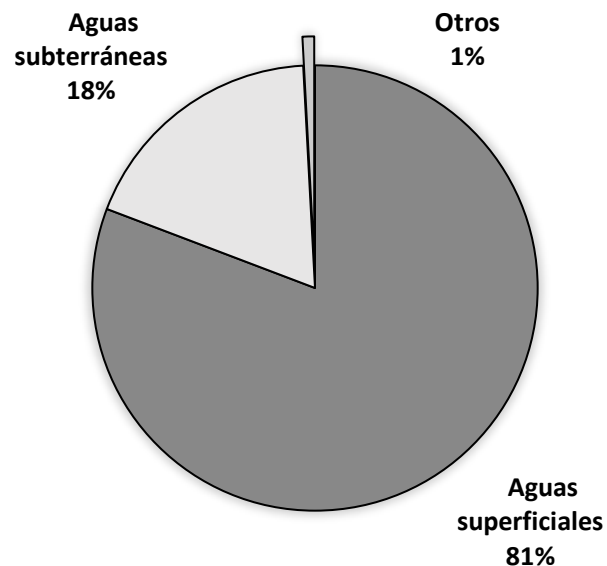
Riego en Andalucía



- Total Water abstraction decrease since 2004 (total)
- Increase drip irrigation (70% in 2020)

Andalucía source of water

- Non conventional water (60 hm³, 1% del total).
- 50% is desalination



Origen agua riego AND
media 2001-2020

High value crops

Potential demand for reclaimed water....

....BUT usually there is a cheaper alternative

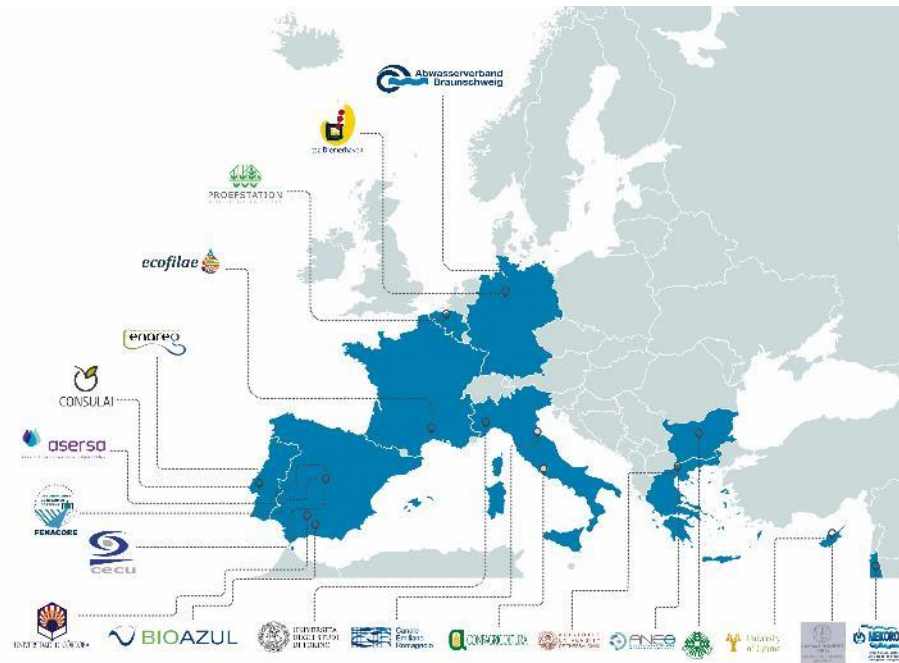
Crop/system	Water productivity	Capacity to pay	Alternative source	Alternative source cost
Olives	2,0	0,6	Groundwater	0,1
Almonds	2,0	0,6		0,1
Avocado/mango	3,0	1,0		0,2
Berries	4,0	1,0		0,1
Greenhouse	9,0	0,6	Desalination	0,6

Regional plan

- Social consensus to increase water reuse.
- Availability of EU funds.
- Building of new and enlarged WWTP including Tertiary treatment .
- The Water Agency is willing to use the reclaimed water to be ‘exchanged’ for GW resources in overexploited aquifers.
- Farmers are not willing to change cheap GW sources for Expensive and complex RW.
- Water entitlement should prioritize the use of 100% of RW before farmers start using GW rights (to avoid ‘sleeping rights maintained for the ‘next drought’.
- Legal ‘fuzzy’ regulation for ‘mixed sources’ water rights (usually legal entitlement allocate single source-volume-users.



This project has received funding from the European Union's H2020 Research & Innovation programme under grant agreement N° 818088



Thanks for your attention!

Julio Berbel

Universidad de Córdoba

berbel@uco.es

www.suwanueurope.eu