



Experience from using ecosystem service argument in practice

Arguments on livestock traditional practices within conservation strategies

Dr. Marina García Llorente,

Lorena González, Berta Martín-López, David García del Amo,

Pam M. Berry, Paula A. Harrison



International Conference on

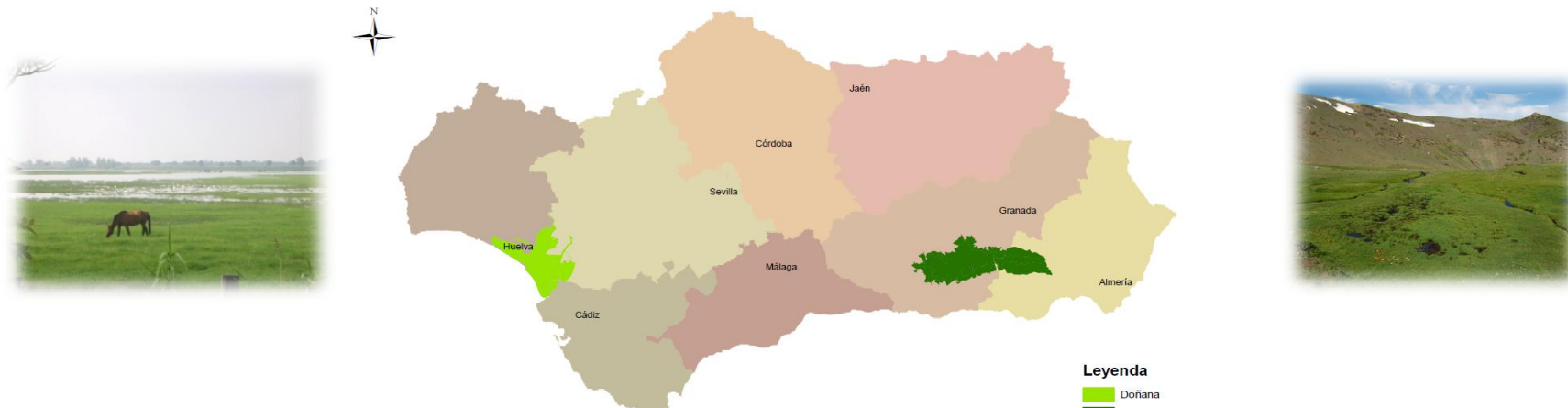
Motivations and arguments to act for biodiversity

Alternative ways to inspire innovative policy making

10th–11th of June 2015, Brussels, Les Ateliers des Tanneurs

1. What was the main goal of your case study? Were specific policy or implementation decisions related with this goal?

The main goal was to analyse the way in which traditional livestock practices have been integrated into the management of natural protected areas in Andalusia, overcoming the apparent conflict between biodiversity conservation and the needs of local people in terms of ecosystem services supply



The specific goal is related to conservation policies, as the results obtained could feed the livestock management plans adopted in both areas.

In addition, with this study we have analysed which social demands (expressed through interviews) are still not well represented in conservation policies (extracted from documents), and which kind of policies still need greater effort to be actually implemented in practice.

II. Did ecosystem service arguments play a major role? If so, for which services and was biodiversity linked to the provision of these services?

Ecosystem services arguments played a key role as traditional livestock practices and native breeds contribute to:

Related ecosystem services	Description of examples in the study areas
Seed dispersion	Cattle grazing contribute to seed dispersion; decreases biomass
Prevent landscape flammability	accumulation preventing wildfires
Habitat protection for species	Vegetation communities emerge from the balance between nitrification from livestock and humid conditions on Sierra Nevada summits



Vegetation communities ("*borreguiles*") emerge from the balance between nitrification from livestock and humid conditions



Traditional sheep cheese making in Sierra Nevada



Annual round up of the Wild Horses (Saca de las Yeguas)



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Gene pool Food from livestock Recreational-aesthetic Cultural identity	Native breeds are adapted to the limited resource conditions in the Andalusian mountains. It also provides good quality meat (cheese, milk, etc.). Livestock practices and events have an attractive interest for nature and cultural tourism. Native livestock breeds such as Andalusia's feral marsh horses are a central element of the local culture.



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Traditional sheep cheese making in Sierra Nevada



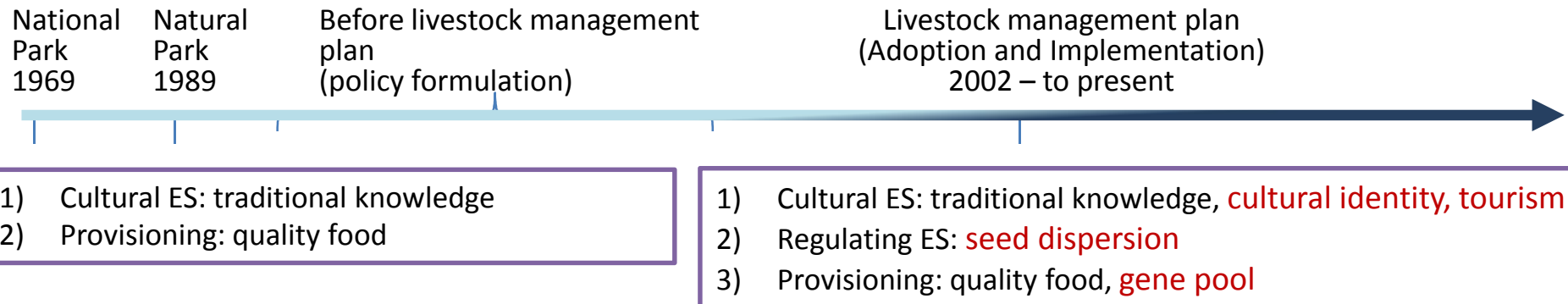
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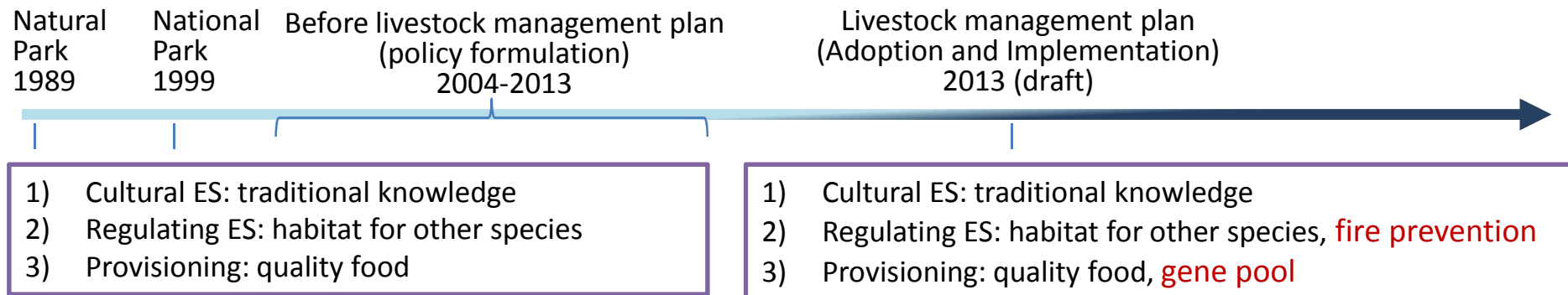
III. How did the arguments influence decision-making, of which stakeholder groups, at what level(s) and over what timescale?

During the last decades, there is an increasing interest in considering ES in conservation plans (even if they did not use the approach in an explicit way)

ES arguments from livestock activities in Doñana Natural Protected Area



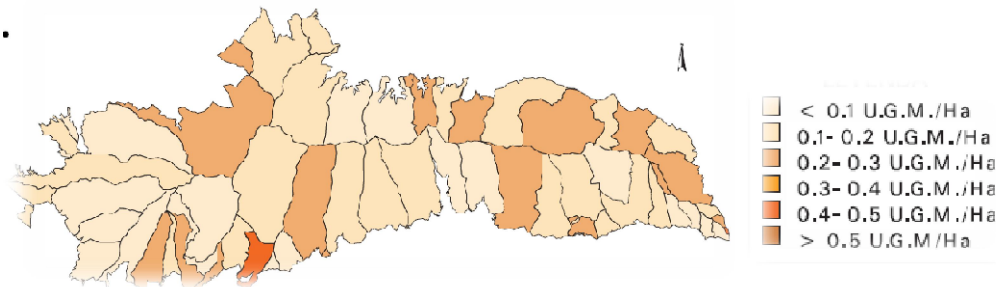
ES arguments from livestock activities in Sierra Nevada Natural Protected Area



From the interviews: Producers (shepherd, livestock keepers, cheese makers) were particularly concerned with the diverse flow of ecosystem services delivered

IV. Did the availability of knowledge influence the use of ecosystem service arguments or a wider range of arguments in general?

➤ When scientific knowledge on ecological impacts was lacking, the precautionary principle was sustained by protected area managers and scientists: limiting traditional livestock practices and the ecosystem services attached to livestock breeds. When a carrying capacity was established, ecosystem services related with livestock practices started to be considered.



➤ Experiential and local knowledge trust also influence the use of ecosystem service arguments. Gradually the cultural values of livestock practices originally held by shepherds and keepers have started to enter mainstream thinking on protected areas plans. Arguments related to cultural ES (mainly in Doñana) and the economic importance of provisioning ES and regulating ES (mainly in Sierra Nevada) have increased.

➤ The collaboration among different actors has improved knowledge co-production, and enrich the range of ecosystem services recognised.



Many thanks!

Dr. Marina García Llorente

**Madrid Institute for Rural, Agricultural and Food Research and Development
(IMIDRA), Applied Research and Agricultural Extension Dpt.**

Social-Ecological Systems Lab, Ecology Dpt, Autonomous University of Madrid

Email: marina.garcia.llorente@madrid.org

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