



# **Adapting Ostrom's design principles evaluate the performance of meadow bird conservation scheme in Germany**



CAU

EFFECT meeting May 2023



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# Bird populations in Europe: latest status and trends

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NATURE AND ENVIRONMENT | EUROPE

### 'Dramatic' decline in European birds

05/04/2017

Habitat loss and a decline in insects are among the main factors influencing an alarming decrease in birds in Germany and Europe, according to new figures released by the German government.

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 **Nic Newman**



The UK is losing the sound of the curlew as their numbers continue to decline. Flickr/Edge/Shutterstock

### NEWS

## Britain has lost 73 million birds over the last 50 years

By Josh Davis  
First published: 12 May 2020



The number of wild birds in Britain has fallen by 73 million since 1970.

Most of the declining species are farmland birds, where a mix of increasingly industrialised agriculture, habitat loss and the climate crisis are having severe impacts.

### Read more

✕ Find out how the birds are doing in your patch by visiting [the BTO's website](#) **it**.



### British wildlife

Find out about the plants and animals that

# Agri-environmental schemes: action-based vs results-based

- **Action-based payment approach** (bird nest protection, postponement of the mowing date, reduction of manure application, and increased groundwater levels)
- **Results-based payment approach:** payments are made based on biodiversity outcomes, irrespective of the management measures being undertaken

## Cooperative results-based payment schemes

## Ostrom's design principles

- Ostrom's design principles were originally proposed to promote sustainable management of common pool resources (Ostrom, 1990)
- We adapt Ostrom's design principles (DPs) as diagnostic baselines to evaluate and predict the outcomes achieved by cooperative results-based AES.

# Cooperative result-based meadow bird conservation scheme in Schleswig-Holstein, Germany

Eider-Treene-Sorge Lowlands



# Cooperative result-based meadow bird conservation scheme in Schleswig-Holstein, Germany



Lapwings



Black-tailed godwits



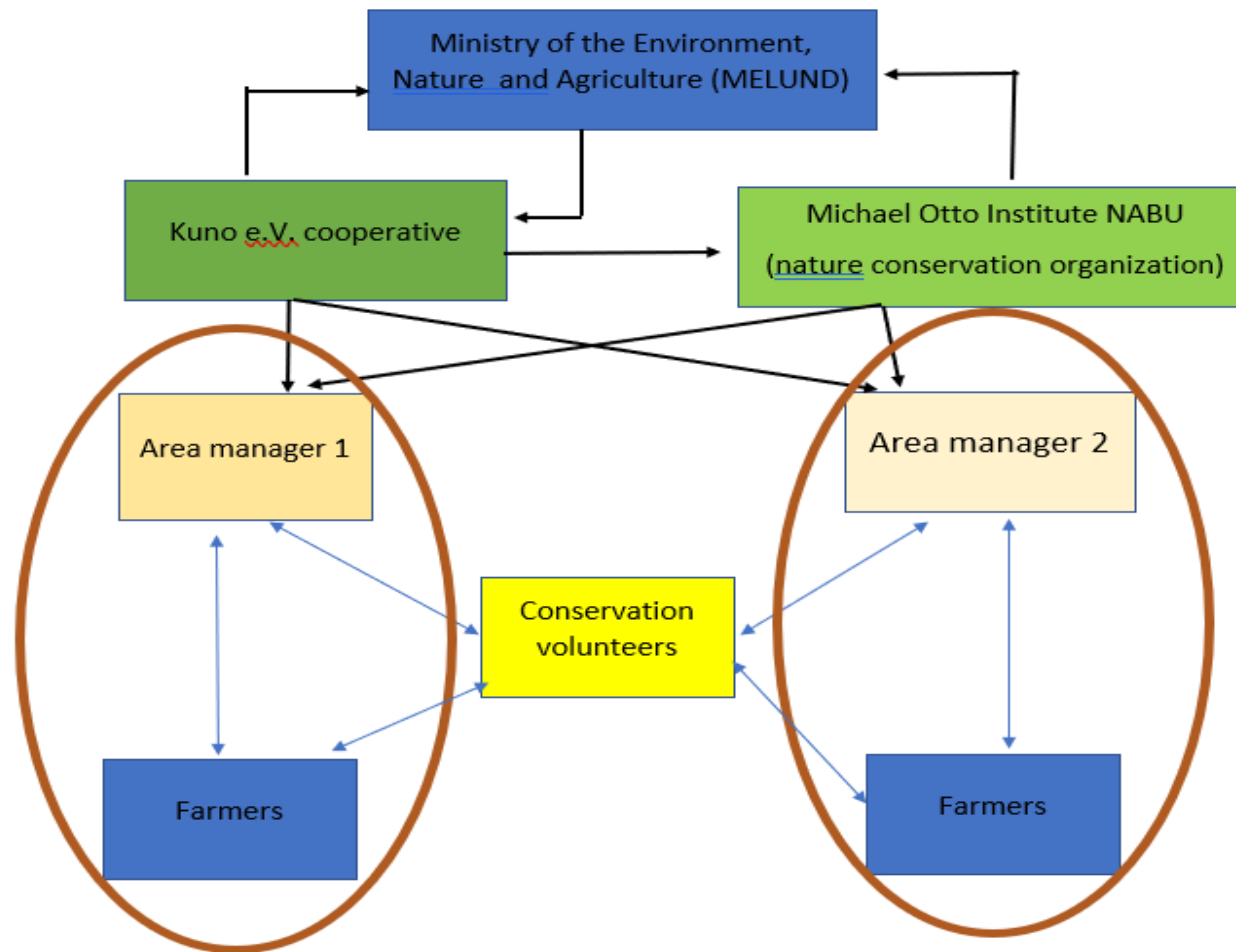
Redshanks



Oystercatchers

- A small-scale meadow bird conservation scheme in Schleswig-Holstein, Germany
- The scheme has been operating since 1997, paying farmers for the protection of bird nest sites
- Farmers participating in the scheme are requested to avoid land management actions that would affect meadow birds during the breeding season.
- Payments are dependent on the presence of breeding birds and vary according to whether one or more clutches are present per hectare

# Cooperative result-based meadow bird conservation scheme in Schleswig-Holstein, Germany



## Research Objectives

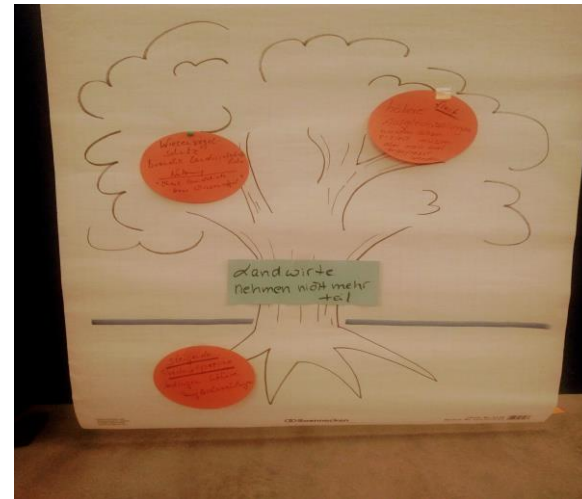
- To examine the extent to which the scheme has conformed to the adapted Ostrom's design principles for effective delivery of environmental outcomes
- To examine the potential for upscaling the scheme to a wider area (other regions)



Adapted Ostrom's design principles (DPs)	Description
<b>DP1:</b> Well-defined environmental objectives, the result indicators, and payment mechanisms	It requires the need for clearly defined environmental objectives, the result indicators, and payment mechanisms.
<b>DP2:</b> Congruence between appropriation, provision rules and local conditions	It requires rules of the schemes regarding the environmental objectives, the result indicators, management practices, payment mechanisms should match local conditions.
<b>DP3:</b> Collective choice arrangements	It states the need for a functional collective action arrangement where participating farmers in the scheme and are affected by the rules can participate in the definition and modification of the rules.
<b>DP4:</b> Monitoring	It states the need for monitoring the outcomes and management practices of farmers
<b>DP5:</b> Graduated Sanction	It states the need for graduated sanctions of rule offenders.
<b>DP6:</b> Conflict resolution mechanisms	It states the need for a rapid and low-cost conflict resolution mechanism.
<b>DP7:</b> Minimum recognition of rights	It requires an agreement with the government about the level of autonomy and the government protection of that autonomy
<b>DP8:</b> Nested enterprise	Appropriation, program design, monitoring, enforcement, conflict resolution, and governance activities are organized in multiple layers of nested enterprises.

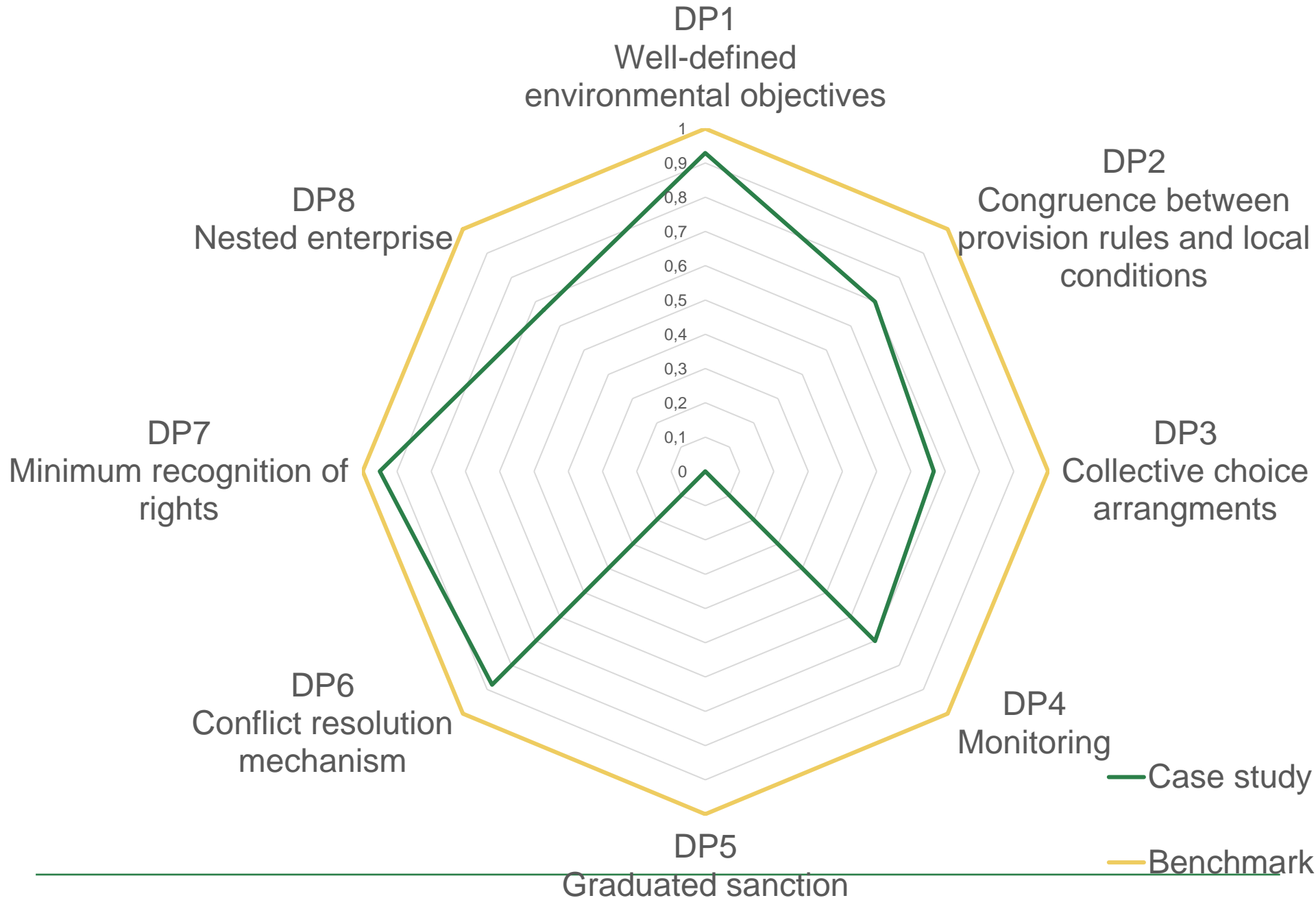
# Research methods

- Grey literature, focus group discussions and in-depth interviews with key stakeholders using a problem tree analysis technique
- Semi-structured interviews with key stakeholders using questionnaire surveys



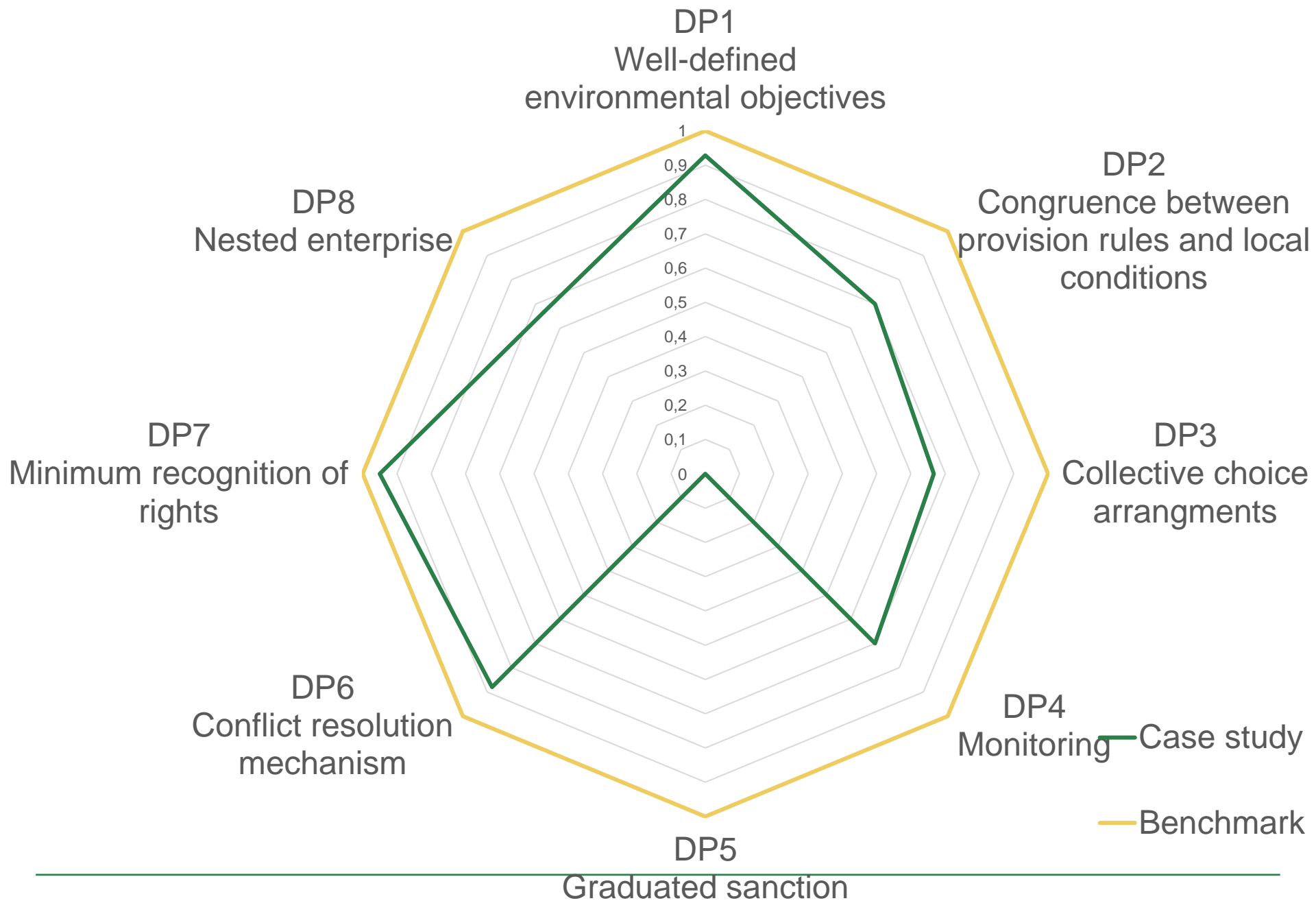
## **DPI: Well-defined environmental objectives, result indicator, and payment mechanisms**

- Farmers were aware of all the bird species that are protected under the scheme and perceived that the result indicator (number of conserved bird clutches) is quantifiable and reliable.
- Farmers appreciate the transparency and flexibility of payment mechanisms in response to external factors beyond the control of farmers



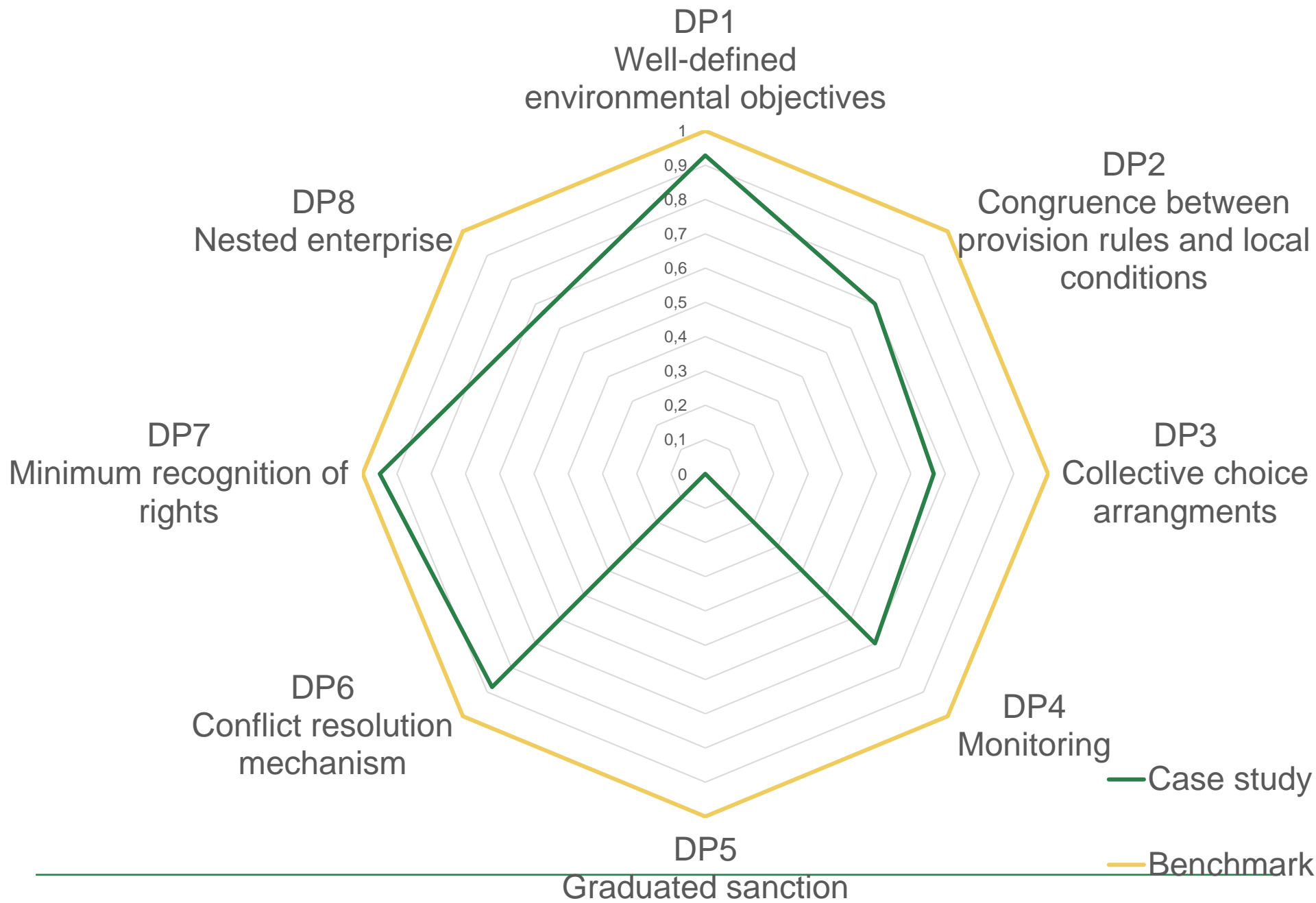
## **DP2: Congruence between appropriation, provision rules and local conditions**

- Land management practices were adapted to local conditions at the farm level
- Farmers appreciate the flexible administration (verbal contracts, no long-term commitment, direct engagement with area contracts) and that they can use the land as they see fit once the chicks have fledged and the birds have left the field



## DP3: Collective choice arrangements

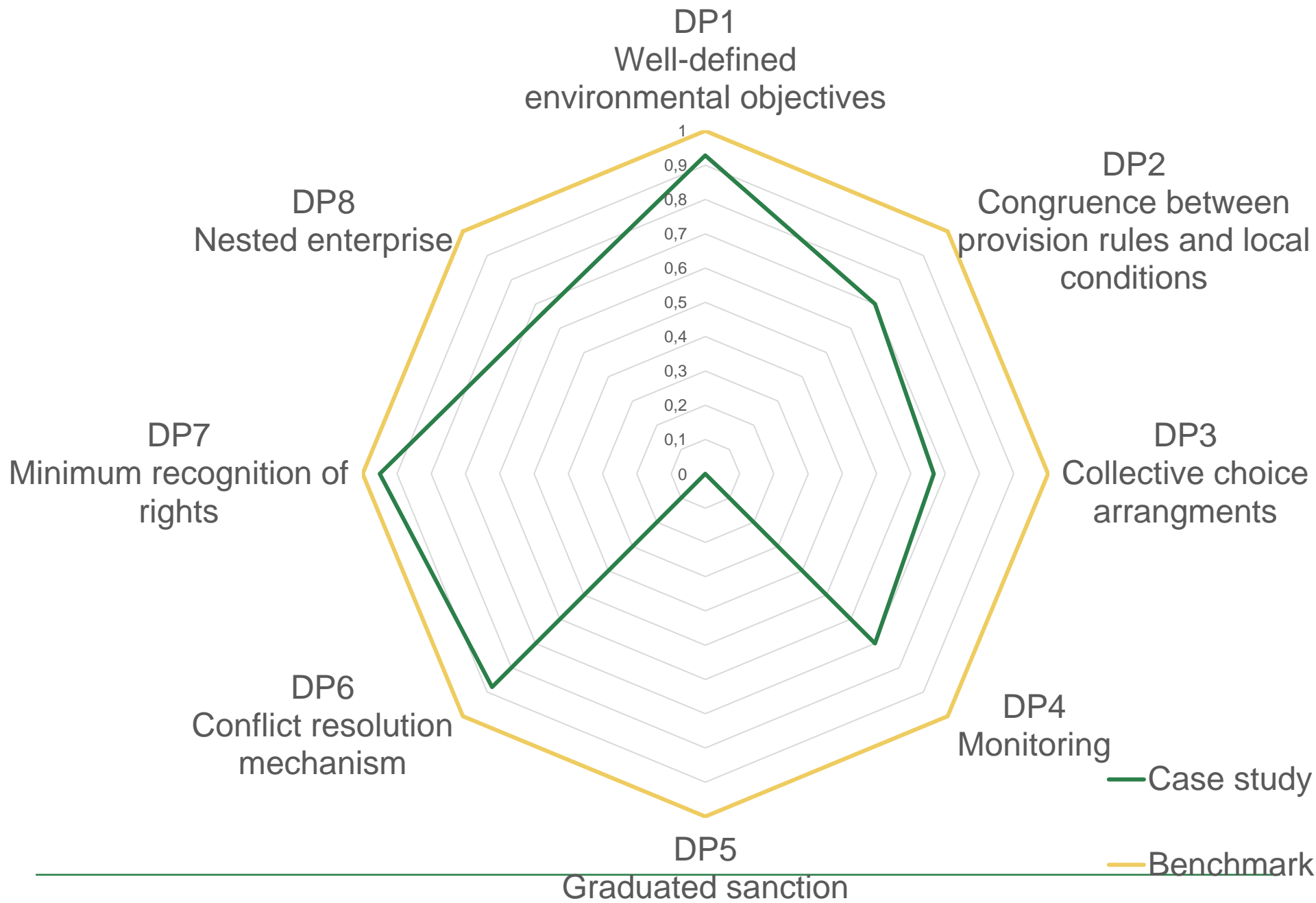
- Farmers play an active role in devising and modifying the planned management actions on farm in consultation with conservation volunteers and meadow bird experts. However, payment levels were pre-defined.
- Annual meeting enables exchange information between farmers and conservation area managers





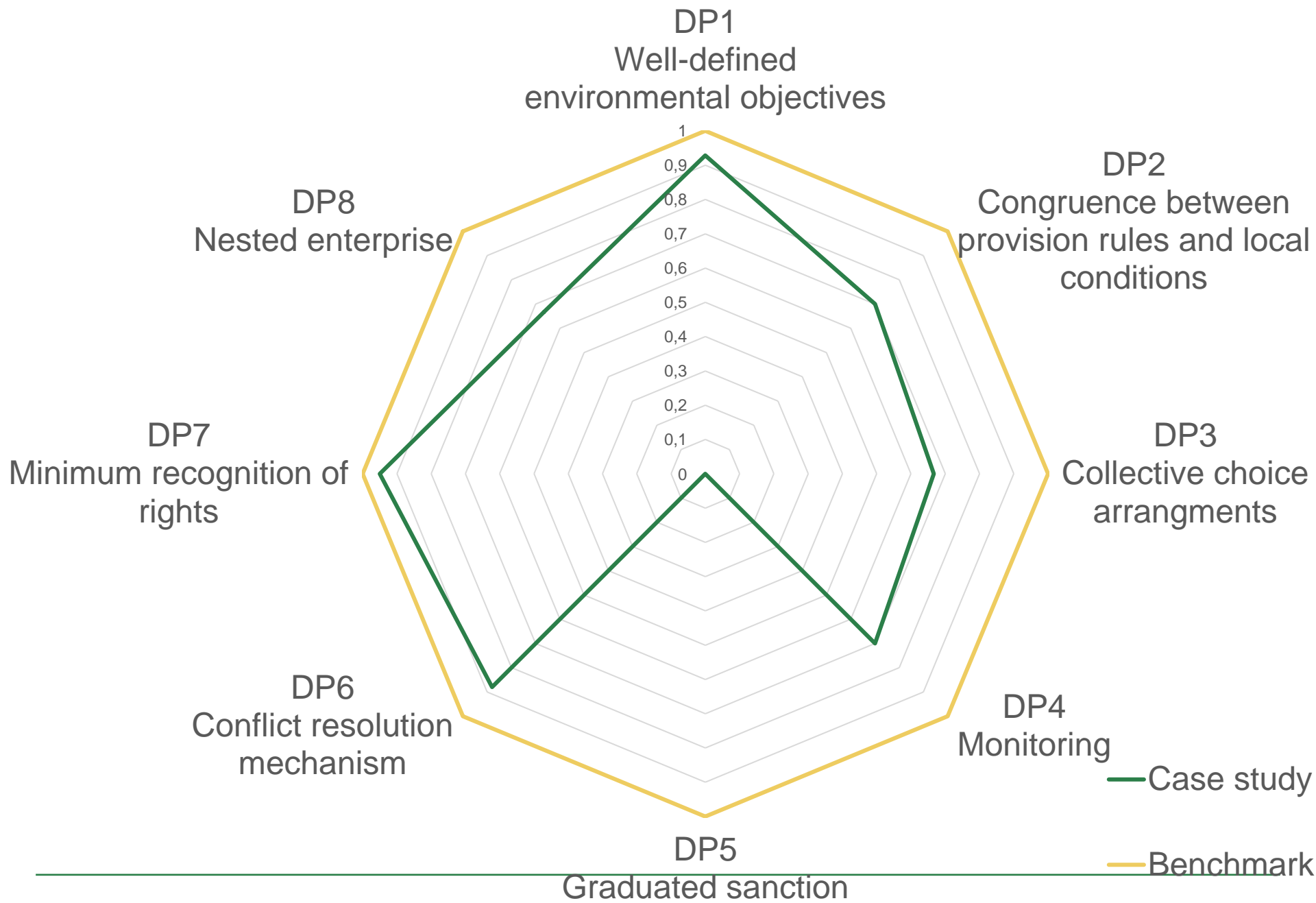
## DP4: Monitoring

- Conservation volunteers are responsible for monitoring
- Trust between farmers and conservation volunteers
- Shortage of conservation volunteers



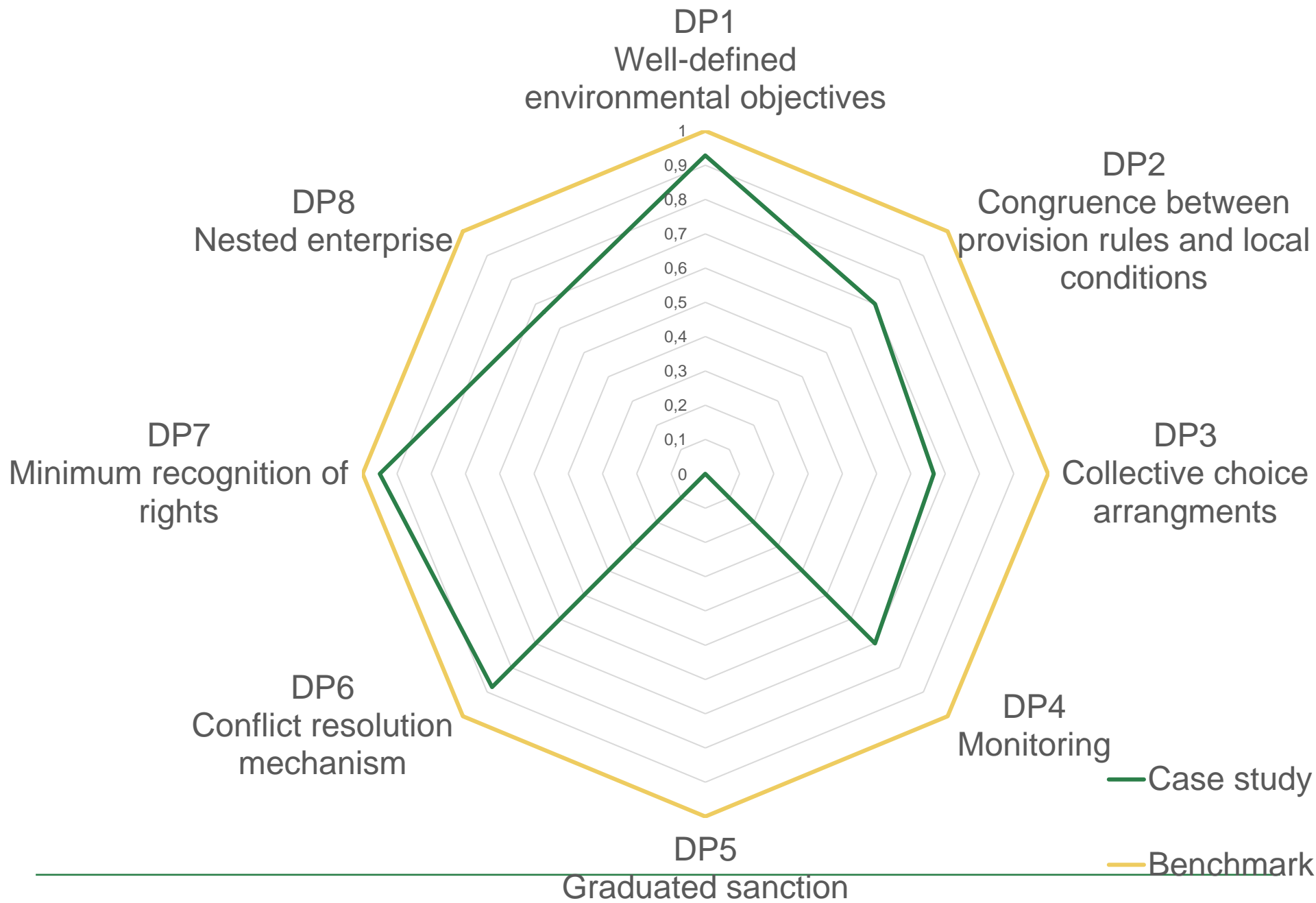
## DP5: Graduated sanction

- There is no graduated sanction mechanism



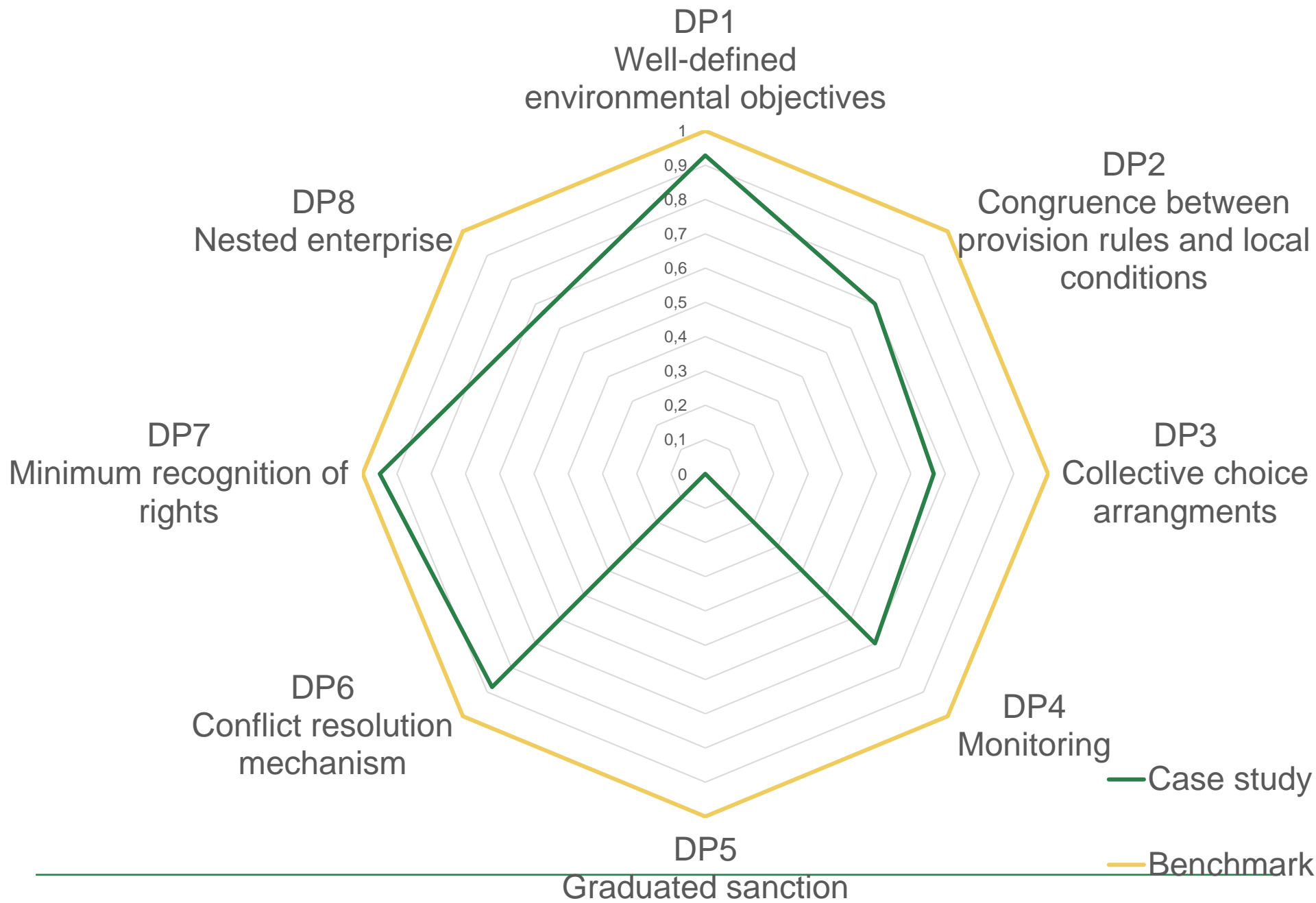
## DP6: Conflict resolution mechanisms

- The support of conservation volunteers as the trusted partner between local nature conservation organizations and farmers
- Regular meeting between farmers and other stakeholders



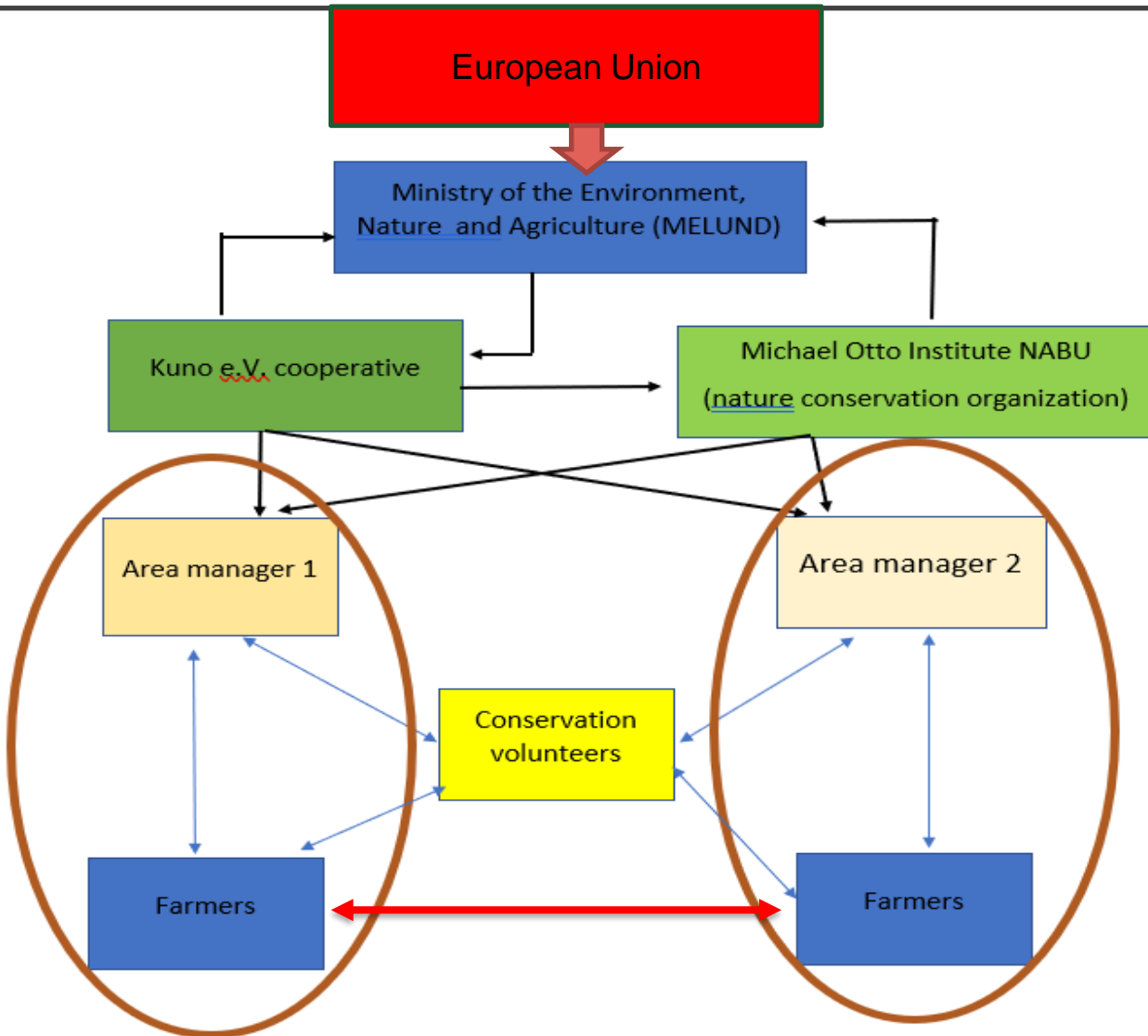
## DP7: Minimum recognition of rights

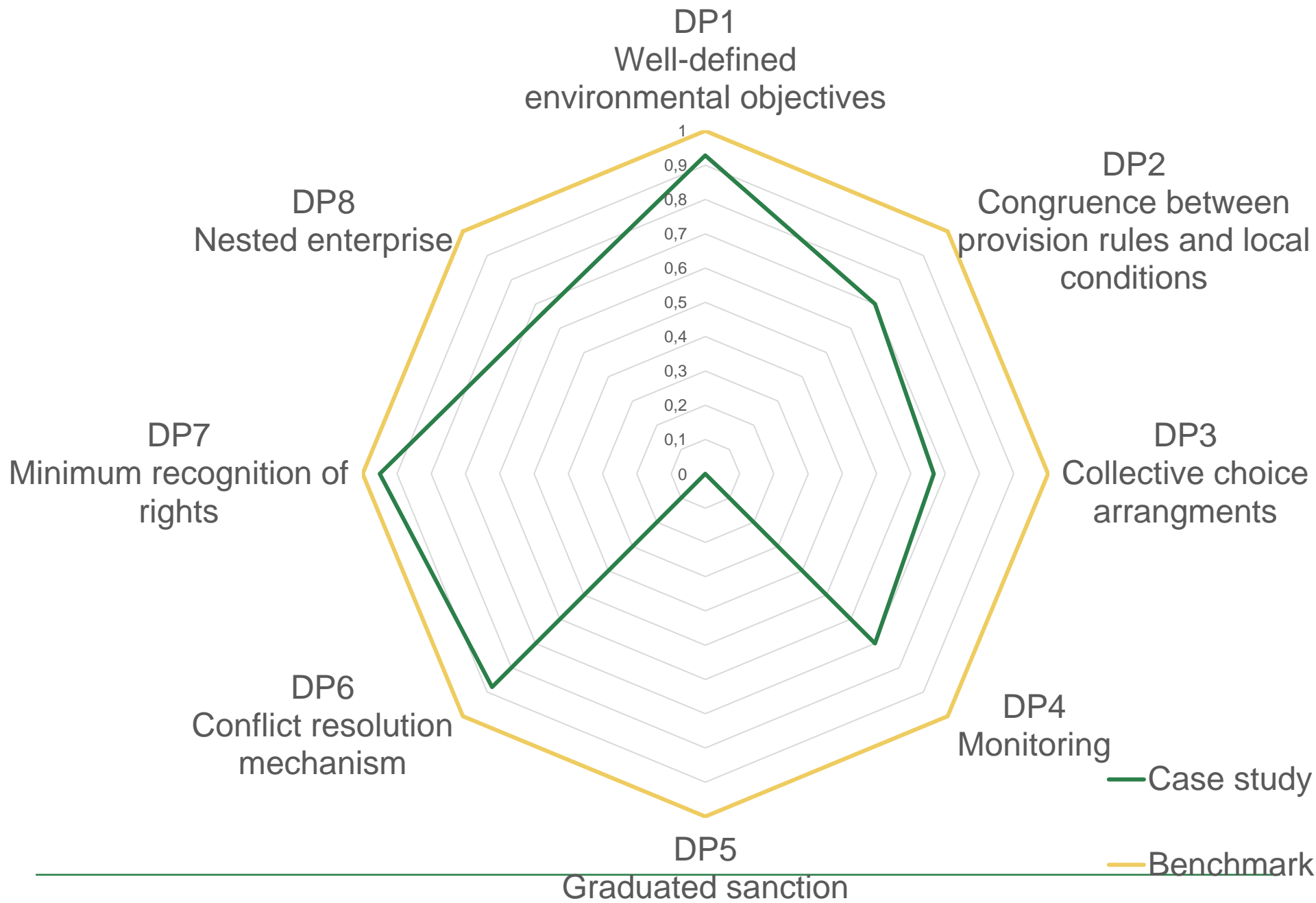
- The rights to design conservation measures that best fit with farm conditions
- Verbal contracts





# DP8: Nested enterprise





# Scheme performance

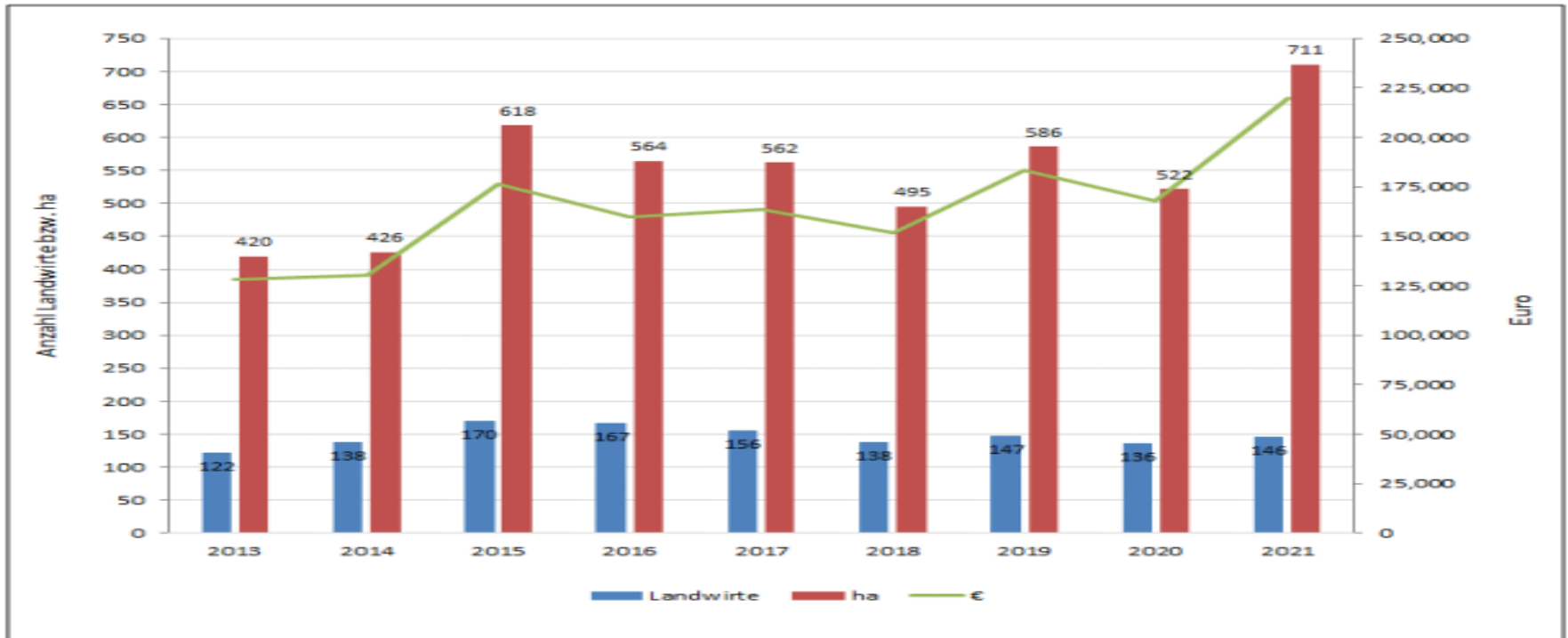


Abbildung 1: Entwicklung der Anzahl teilnehmender Landwirte, der Flächen mit Auflagen (ha) und ausgezahlter Gelder (€) von 2013 bis 2021.

Number of participating farmers, hectares of land enrolled, and payments made 2013 to 2021

## Scheme performance

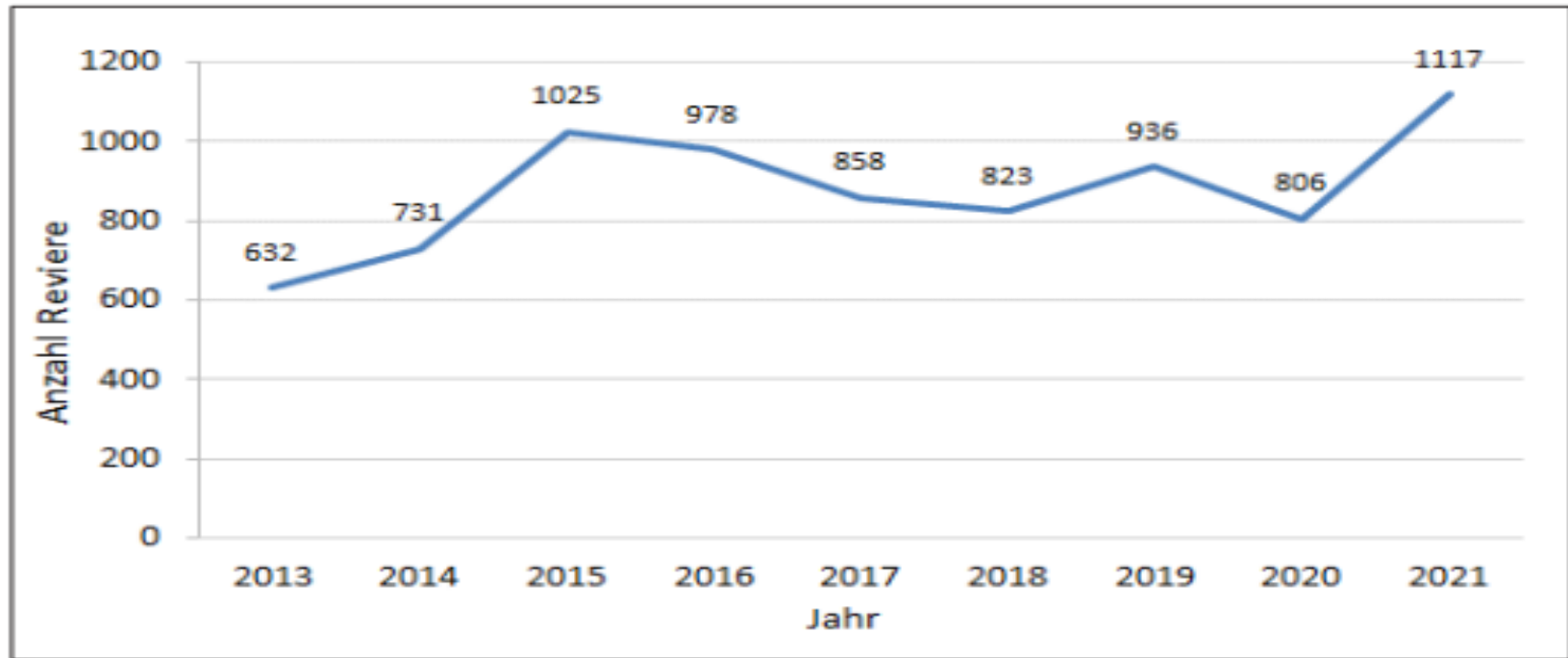


Abbildung 2: Geschützte Paare zwischen 2013 und 2021.

Number of clutches protected by the scheme 2013 – 2021

## Concluding remarks

- Overall, the design and implementation of the scheme strongly adhere to all design principles (except DP5 Graduated Sanction)
- The scheme has successfully encouraged farmers' participation and enhanced bird populations over the years
- Upscaling the scheme to other regions may be a challenge to the extent that the institutions for cooperative governance may be lacking or weak.
  - ✓ **horizontal linkages** among farmers in tackling the predation problem
  - ✓ **vertical linkages** between the regional government and the European Commission authorities in co-financing the scheme

# Thank you