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Landscape Features and Biodiversity conservation schemes: The experience of the Emilia Romagna region (Italy)

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Since 1993, with Reg. (ECC) n. 2078/92, two types of interventions for “renaturalization” of agricultural land have been implemented in Emilia Romagna Region:

Set-aside on arable land (SRA 26)

Active management of ecological infrastructure (Maintenance of landscape features) (SRA 10).

Set-aside for twenty years for environmental purposes and management of ecological connections of Natura 2000 sites

The film captures the intervention (wet meadow) 2 years after its realization

<u>Operation 10.1.10 (RDP 2014-2022)</u>

F1 Wet meadows - contiguous arable land submerged, even partially, even periodically

F1 Complexes of scrub and meadow - area contiguous to arable land

F2 Variable-structured environments with landscape and ecological connecting functions - area contiguous to arable land

Source: Emilia Romagna Region

Wet meadows

Gradually degraded banks (realization)

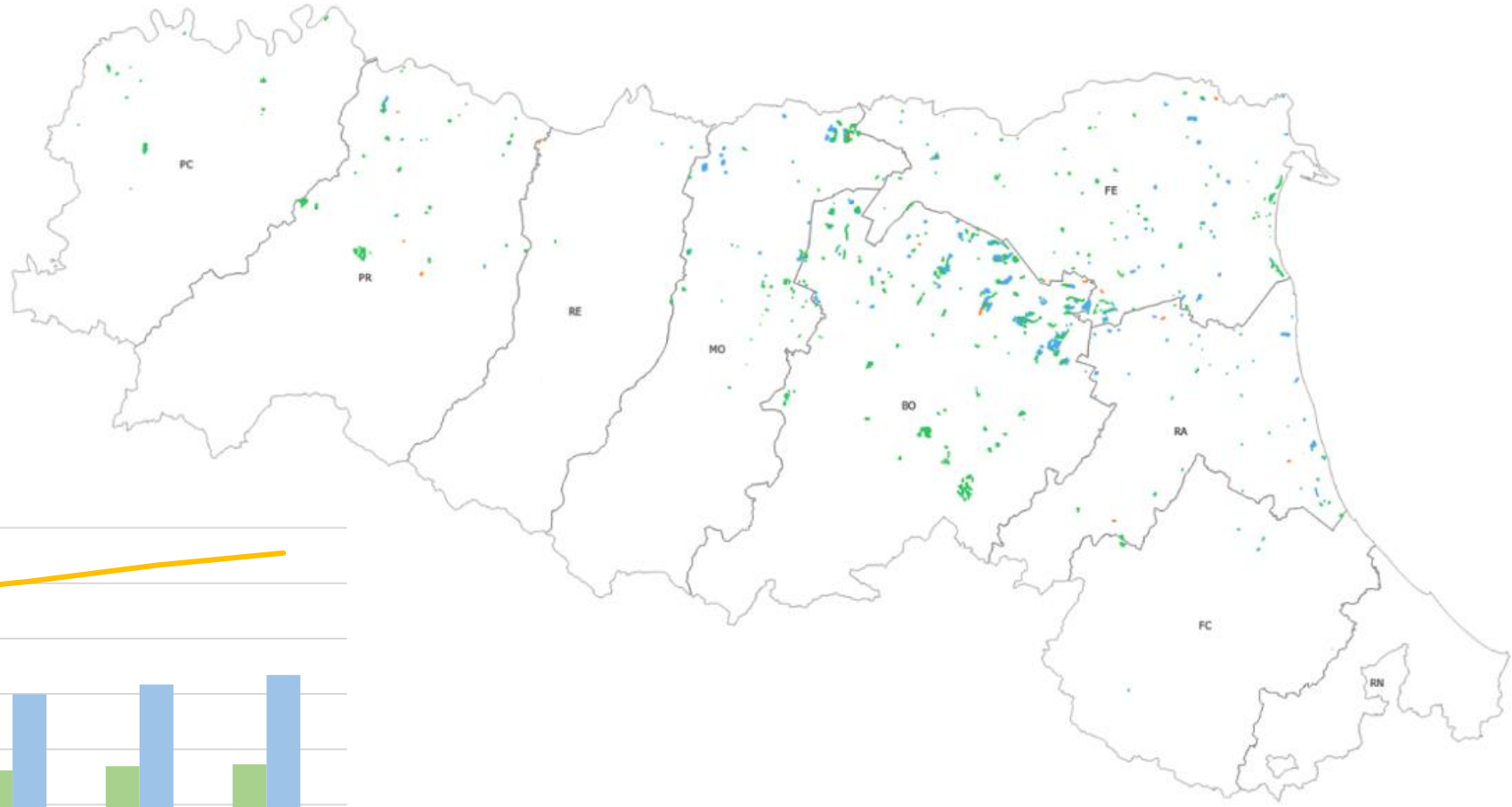
Islets (realization)

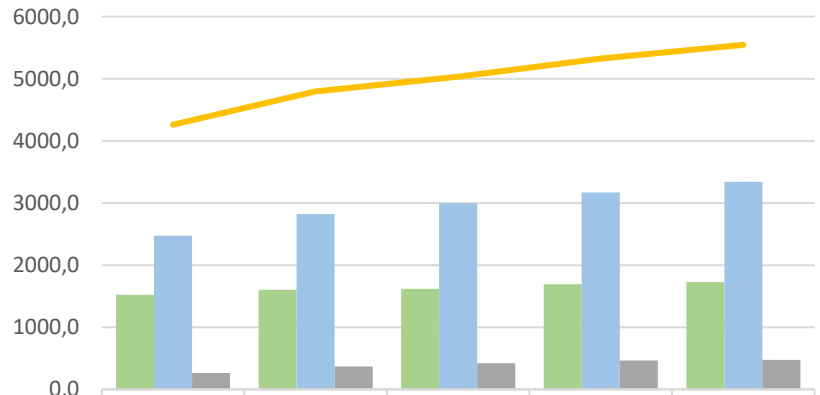
Source: Emilia Romagna Region

Scrub-meadow complexes

Source: Emilia Romagna Region

The distribution of areas under commitment (2021, UtilParPCG2021) - declarative data



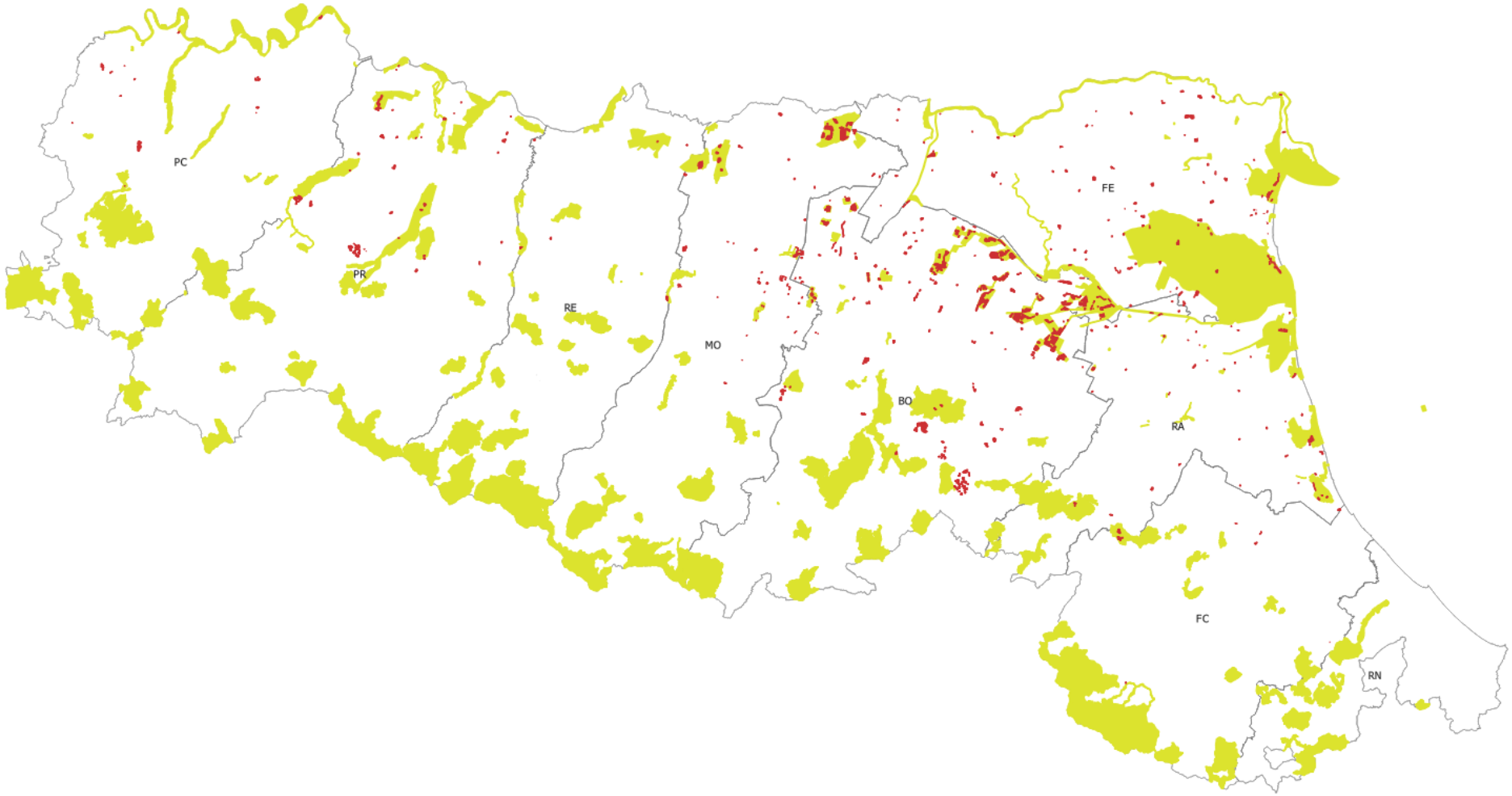


	2018	2019	2020	2021	2022
Complesso macchia -radura	1523,8	1603,6	1618,9	1693,2	1727,3
Prati umidi	2472,9	2822,7	2993,5	3168,1	3342,8
Ambienti variamente strutturati	263,7	370,0	420,8	464,4	475,2
Totale	4260,4	4796,3	5033,1	5325,7	5545,3

Operation 10.1.10 (RDP 2013-2023): The areas under commitment [ha], AGREA WEB Reporting (DP)

Source: Emilia Romagna Region

Operation 10.1.10: area under commitment and Natura 2000 Network



Source: Emilia Romagna Region

Management of ecological connections of Natura 2000 sites and conservation of natural and semi-natural areas and the agricultural landscape

<u>Operation 10.1.09 (RDP 2014-2022)</u>

A. Preservation of plantings and/or isolated or row of trees

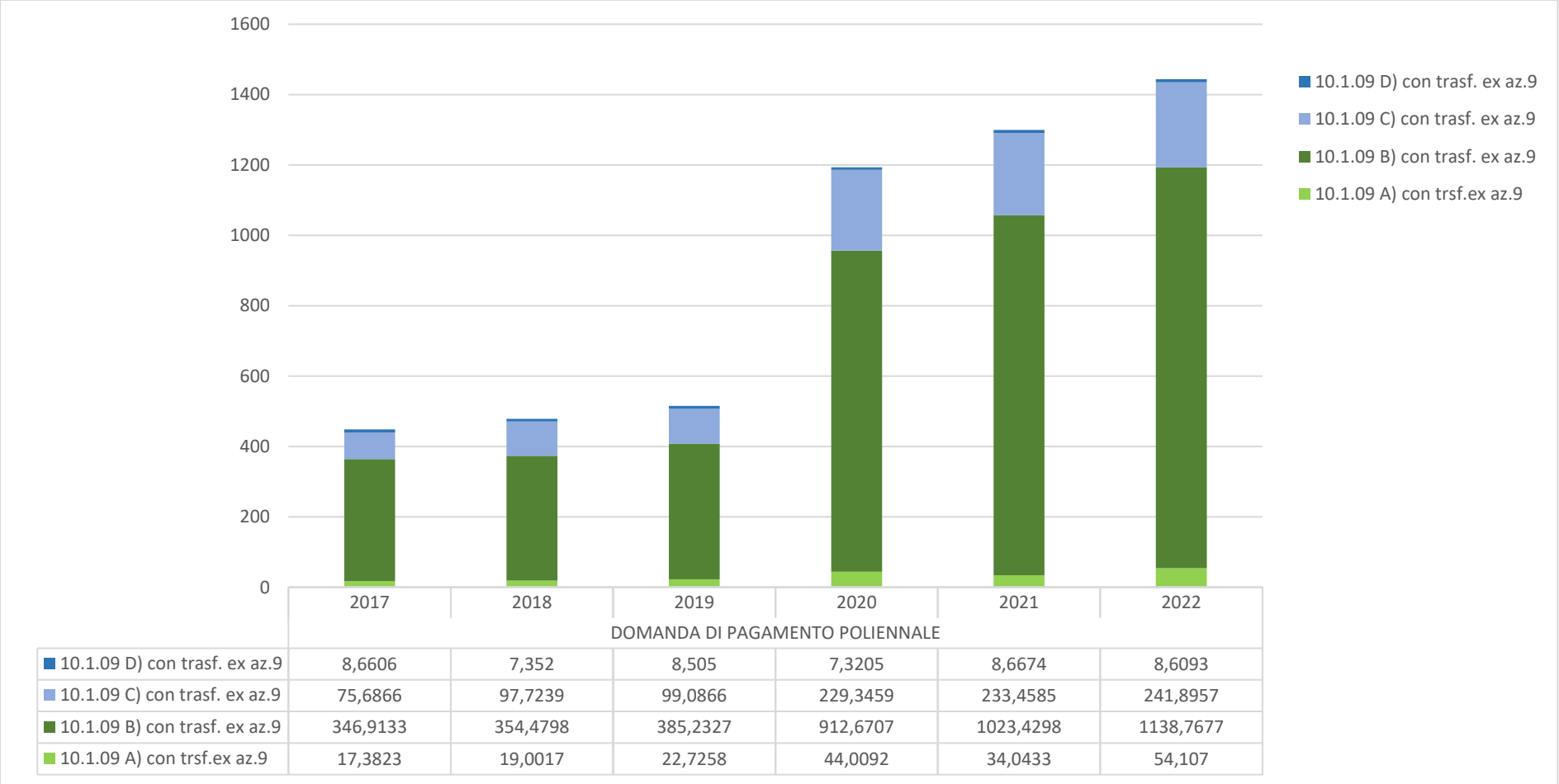
B. Conservation of hedgerows and/or small woods

C. Conservation of ponds, small lakes

D. Conservation of small artificial ponds, resurgences and fountains

Source: Emilia Romagna Region

* Please note: Non-exhaustive data



DOMANDA DI PAGAMENTO POLIENNALE	2017	2018	2019	2020	2021	2022
10.1.09 D) con trasf. ex az.9	8,6606	7,352	8,505	7,3205	8,6674	8,6093
10.1.09 C) con trasf. ex az.9	75,6866	97,7239	99,0866	229,3459	233,4585	241,8957
10.1.09 B) con trasf. ex az.9	346,9133	354,4798	385,2327	912,6707	1023,4298	1138,7677
10.1.09 A) con trsf.ex az.9	17,3823	19,0017	22,7258	44,0092	34,0433	54,107

A. Preservation of planting and/or trees that are isolated or in rows
B. Conservation of hedgerows and/or small woods
C. Conservation of ponds, small lakes
D. Conservation of small artificial ponds, resurgences and fountains

Source: Emilia Romagna Region

Environmental and external benefits

Measures resulting in biodiversity hot spots in lowland areas.

Increases of ecological complexity and consequently the stabilization of new and diverse populations, compared to cultivated agricultural areas. Accumulation of organic carbon.

Benefit to lowland adjacent cultivated area (e.g., abatement of reproductive success of Asian bedbug due to the stabilization of the antagonist *trisolcus japonica*, resulting in decreased flights of antagonists, and use of pesticides).

Increase in the number and species of birds, and hunting, done within the terms of the law, has also benefited, fostering social acceptance of the interventions. (A technical protocol was developed and discussed with various stakeholders, such as hunters who initially opposed it.)

Duration of commitment

The duration was established based on the results of the monitoring and biodiversity outcome survey, which enabled refinement of technical and operational aspects of the interventions, including the commitment period and location of the interventions (preference in lowland and Natura2000 Network).

The ecological and functional value in terms of biodiversity increases over the years and is inextricably linked to appropriate active management aimed at these species.

The longer the time, the greater the environmental effects (e.g., philopatry-faithfulness to birth sites; increased richness and better structure of plant and animal communities)

IMPORTANT support for management so as not to waste the results achieved, necessary for the optimal maintenance of suitable environments to ensure the survival and reproduction of wildlife already achieved by past programming.

Uptake

The risk of possible constraints in farm activity acts as a deterrent to uptake of these interventions.
Limited uptake mainly due to concern about loss of land capital due to constraints (e.g. prohibition of removal of hedgerow and landscape features) imposed by environmental and territorial regulations.

Disconnect between the agricultural sector and land-use and environmental planning, brought about by some inconsistencies between relevant regulations. The absence of monitoring of landscape features in the regional territory on the basis of which certain conservation levels are defined and area and location targets are set makes constraints on the removal of landscape features poorly understood and acceptable by farmers.

To encourage greater uptake the Region ensures long-term payment, but due to budget constraints only the areas already under commitment will be funded in the next programming period

What we have learned

- Importance of monitoring and analysis of results for proper definition and adjustment of interventions.
- Importance of appropriate duration of schemes for environmental benefits.
- Interventions are complex and must be managed by paying attention to all the many aspects
- Importance of a process of dialogue and sharing with farmers and land actors.
- Need for greater consistency in regulations governing agricultural land, and less rigidity in constraints on, for example, hedges.
- Need for adequate funding.

Thank you for your attention

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Source of images: Zuzanna Ludwiczak, Laura Biolchini, and taken from Marchesi and Tinarelli (2007)

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