



# SustainFARM

## Public Goods Tool

### CASE STUDY: ITALY

#### Location

The area around Orvieto in central Italy has a population density of 62 inhabitants/km<sup>2</sup> with the population progressively decreasing during the last 50 years; currently about 8% of the population is employed in the agricultural sector. About 42% of the territorial area is located above 400m a.s.l with sandy clay loam soils. The average farm size is about 5ha. The area is rich in history with many small settlements scattered through the rural landscape, making it very attractive for tourists.

#### The farm

The farm Danilo Basili (Il Sasso) covers an area of 38.36 ha consisting of 4.41ha of forest, pasture of 30.83ha, and 1.95 ha of olive orchards. The land is characterised by broadleaf woodland and extensive olive groves with a low tree density (Fig. 1). The farm combines olive groves with sheep grazing for milk production. The farm is managed organically (but not certified) and employs one permanent worker for the sheep enterprise and seasonally more than five people for pruning and harvesting the olives. The milk is processed for the cheese “Pecorino Umbro” and ricotta, olives are processed in a closed oil mill to obtain high quality extra-virgin olive oil.



*Figure 1. Silvopastoral system at Sasso's farm.*

## Results

Scoring of the nine spurs for Sasso's farm varies between 2.3 for the NPK balance (because of the import of hay and feed) and 4.3 for Governance (reflecting a wider appreciation by the farmer of the impacts of the farm beyond its boundaries and the cooperative approach to working with stakeholders (Fig. 2). Social capital also scores highly due to attention to staff training and care, and provision of public access (Fig. 3). The LER is 1.87 which suggests that 87% more land is needed under a monocropping scenario to achieve the same level of production (based on metabolizable energy) as the agroforestry system (olives and livestock) on the farm. The energy benchmarking shows that the arable (olive) enterprise uses only 21% of benchmark systems, but that the energy use for the sheep is considerably higher than the benchmark (241% of benchmark. N.B. the sheep benchmark is based on a wide data range for UK beef and sheep systems, including many upland units, which tend to have a low fuel fossil fuel use per head of livestock).

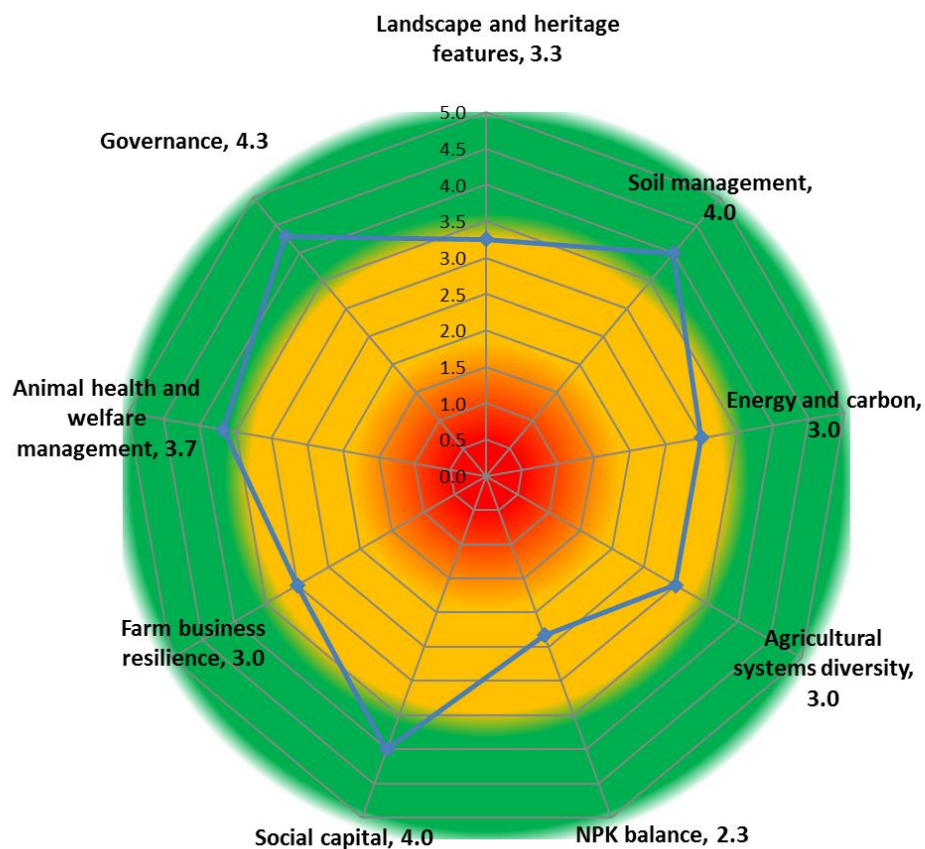


Figure 2. Spur scores for Sasso's farm, Italy



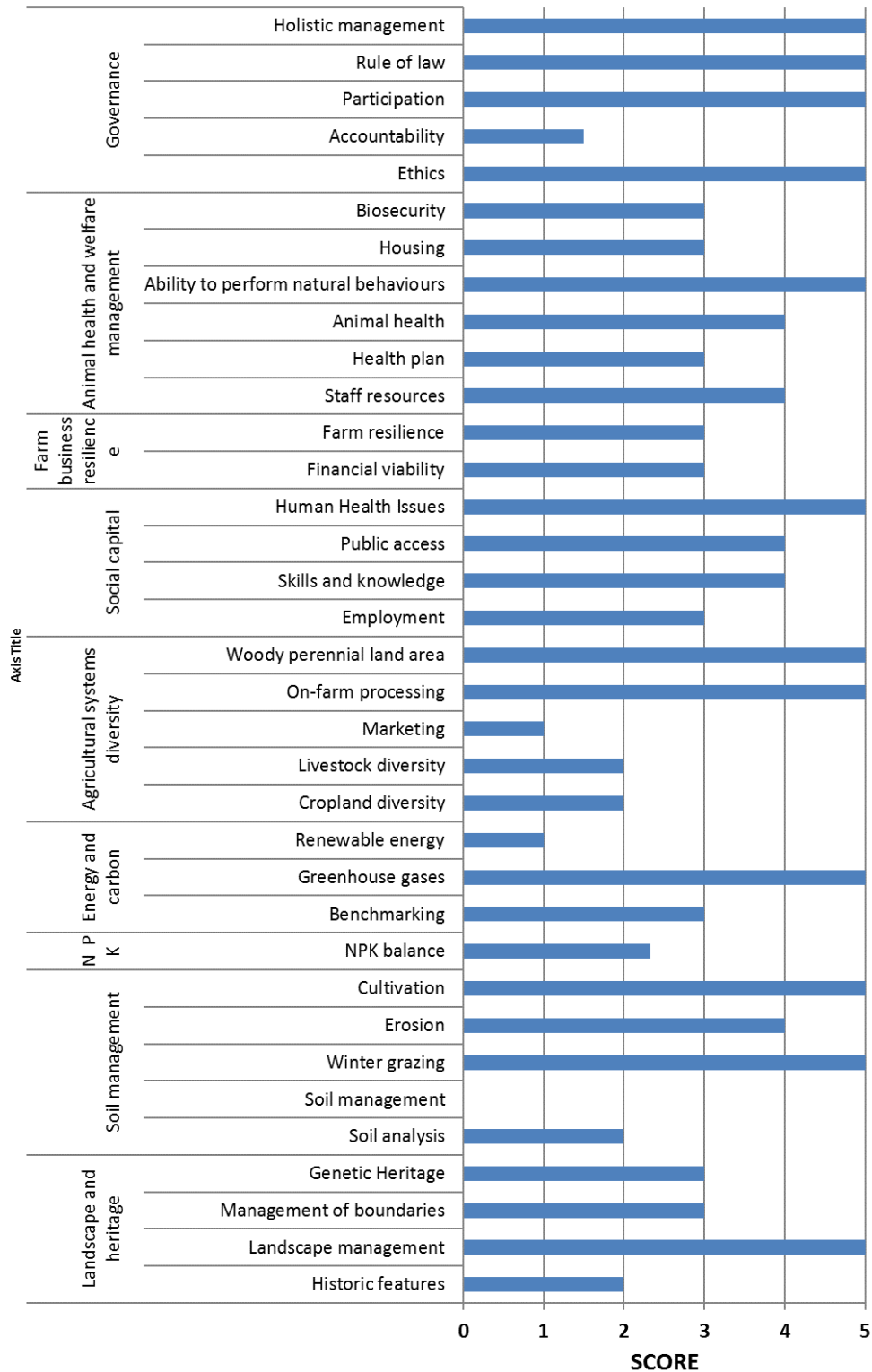


Figure 3. Bar chart showing sub-spur scores for Sasso's farm, Italy

Key assessment criteria		
<b>Land Equivalent Ratio</b>	<b>1.87</b>	
<b>Farm gate NPK balance</b>		
N balance per ha	84	kg
P balance per ha	6	kg
K balance per ha	35	kg
<b>Energy benchmarks (energy use as % of average figures)</b>		
Arable	21%	
Beef & sheep	241%	
Dairy	No dairy	
Pigs	No pigs	
Poultry - layers	No layers	
Poultry - broilers	No broilers	
Domestic	no domestic	
Total farm renewable energy	0%	
<b>CO<sub>2</sub> balance</b>	-1.0	tonnes CO <sub>2</sub> equivalent yr
<b>Labour use - ALUs</b>	3.0	<b>Please note:</b> 1 ALU is one full-time employee working 2200 hours per year

Figure 4. Key results for Sasso's farm, Italy

### Acknowledgements

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