

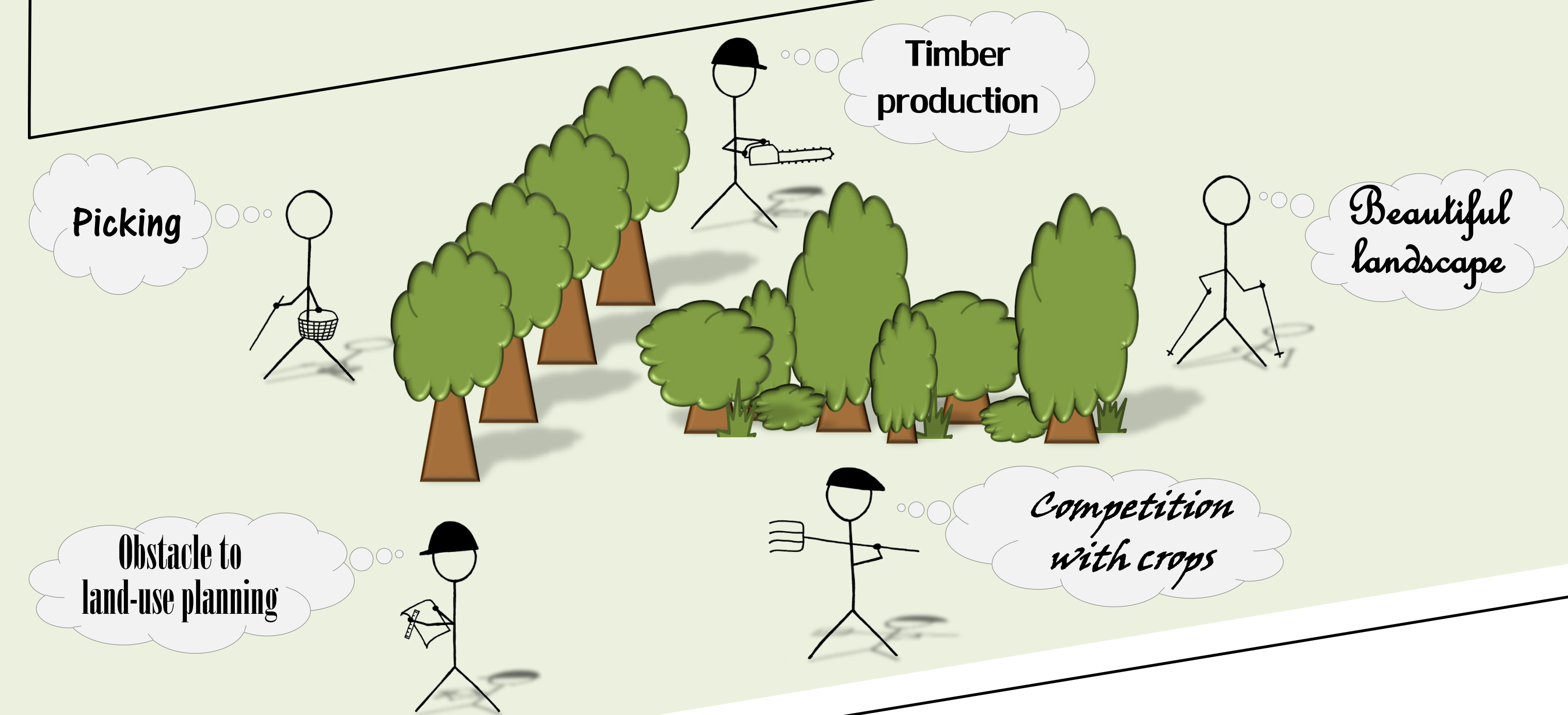
# Terafor: DEXi-based multicriteria model to consider all multiple fonctions of tree formations in temperate agroforestry area

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## How do you consider all functions of tree formations ?



### Tree formations:

- **Ubiquitous** in most temperate agricultural areas
- **Multiple functions**
- **Various stakeholders**



Photo credit: Dynafor

## 2) Terafor model:

to evaluate the effective functions of tree formations

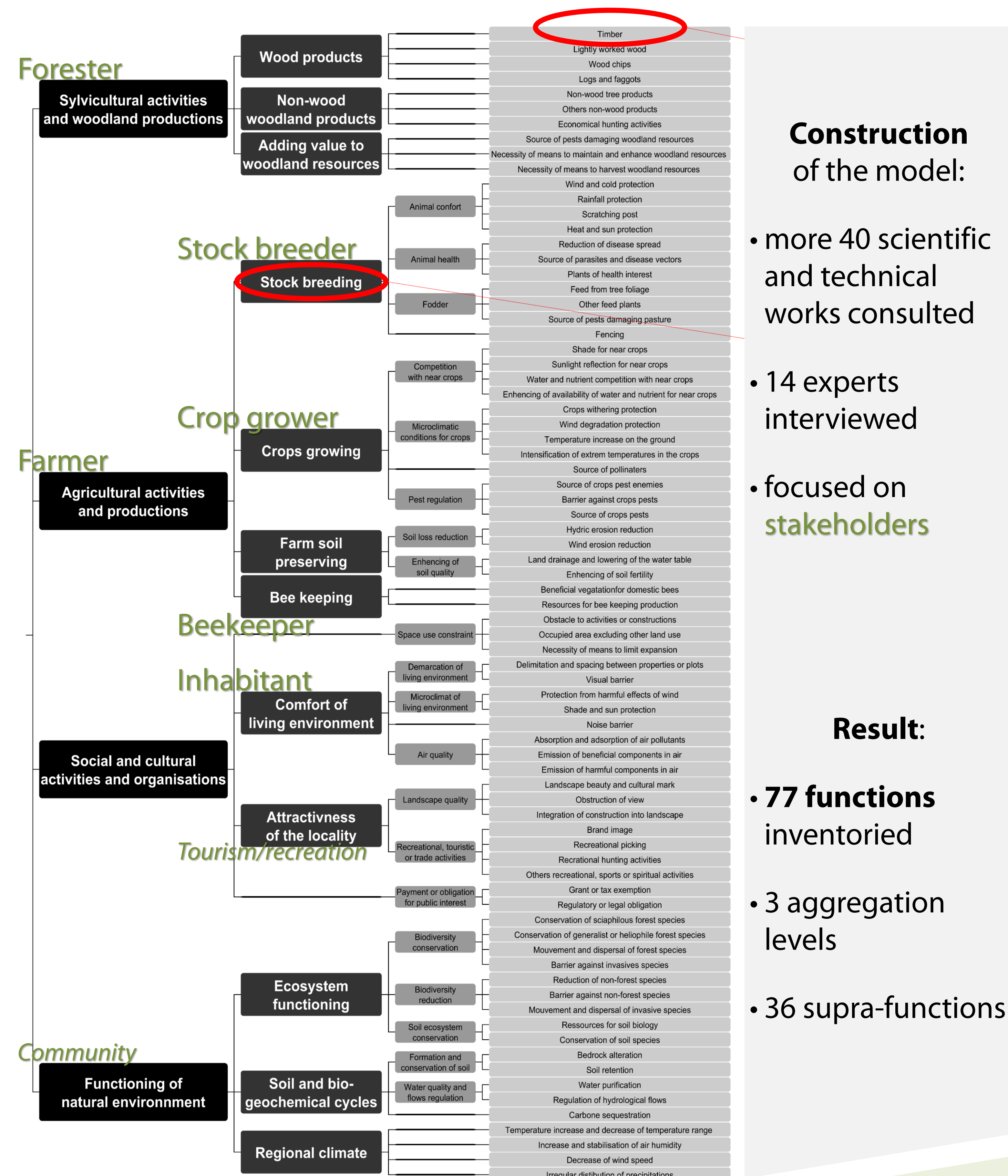
### DEXi-based model:

- hierarchical structure
- qualitative multicriteria analysis



## 1) Terafor model:

to represent the potential functions of tree formations



### Construction of the model:

- more 40 scientific and technical works consulted
- 14 experts interviewed
- focused on stakeholders

### Result:

- **77 functions** inventoried
- 3 aggregation levels
- 36 supra-functions

### Timber

Number of trees	Tree maintenance	SWC conditions	Timber
1 < 4	Negligible	Negligible	Negligible
2 < 4	Negligible	Significant	Negligible
3 < 4	Significant	Negligible	Negligible
4 < 4	Significant	Significant	Negligible
5 4-8	Negligible	Negligible	Negligible
6 4-8	Negligible	Significant	Negligible
7 4-8	Significant	Negligible	Significant
8 4-8	Significant	Significant	Significant
9 > 8	Negligible	Negligible	Negligible
10 > 8	Negligible	Significant	Significant
11 > 8	Significant	Negligible	Significant
12 > 8	Significant	Significant	Significant

Negligible

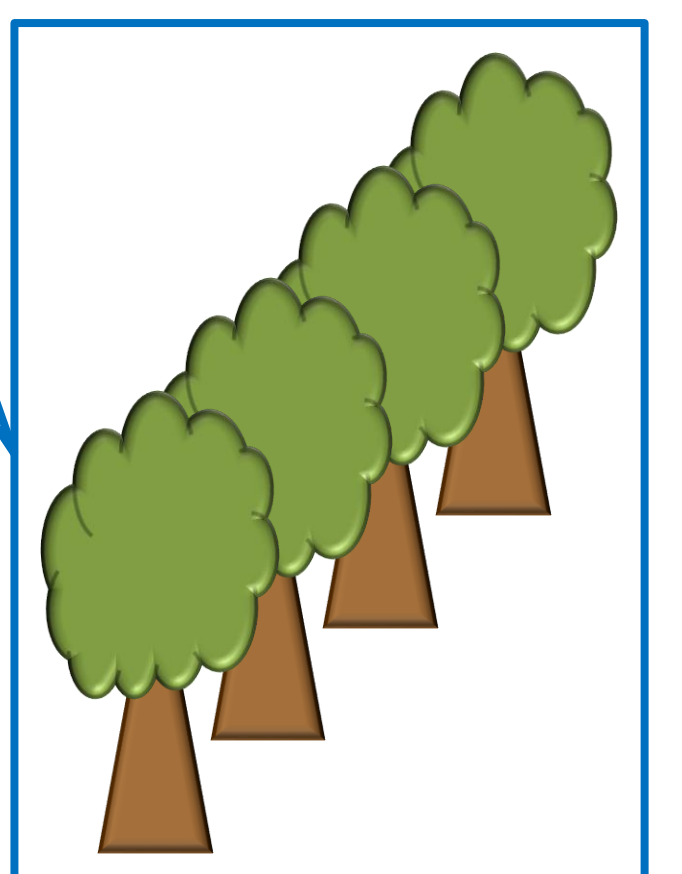
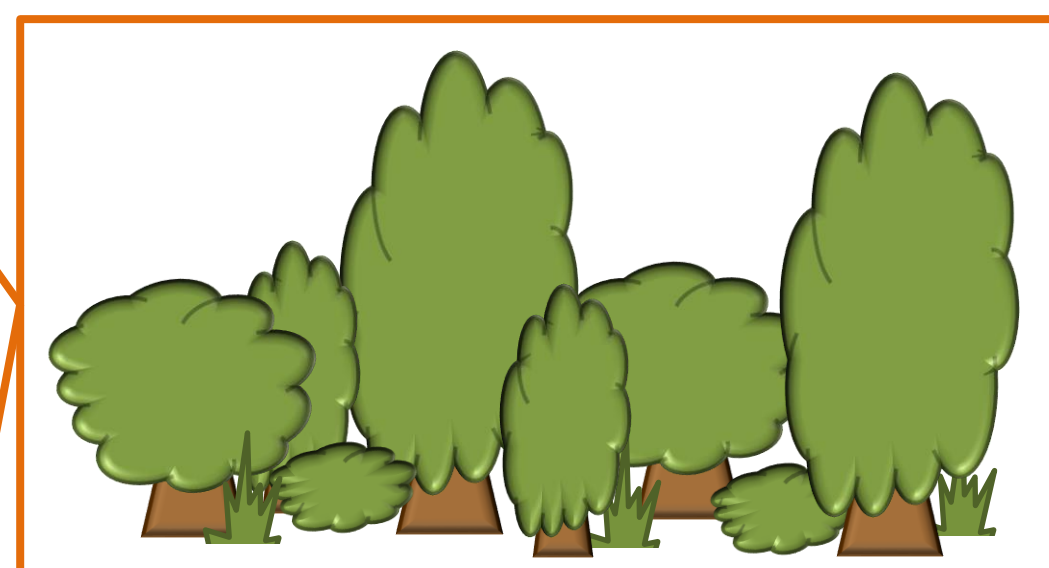
Significant

### Stock breeding

Animal comfort	Animal health	Fodder	Fencing	Stock breeding
1 Weak	Negative	Negative	Negligible	Negative
2 Weak	Negative	Negative	Significant	Negative
3 Weak	Negative	Weak or disparate	Negligible	Negative
4 Weak	Negative	Weak or disparate	Significant	Weak or disparate
5 Weak	Negative	Positive	Negligible	Weak or disparate
6 Weak	Negative	Positive	Significant	Weak or disparate
7 Weak	Weak or disparate	Negative	Negligible	Negative
8 Weak	Weak or disparate	Negative	Significant	Weak or disparate
9 Weak	Weak or disparate	Weak or disparate	Significant	Weak or disparate
10 Weak	Weak or disparate	Weak or disparate	Significant	Weak or disparate
11 Weak	Weak or disparate	Positive	Negligible	Weak or disparate
12 Weak	Weak or disparate	Positive	Significant	Positive
13 Weak	Positive	Negative	Negligible	Weak or disparate
14 Weak	Positive	Negative	Significant	Weak or disparate
15 Weak	Positive	Weak or disparate	Negligible	Weak or disparate
16 Weak	Positive	Weak or disparate	Significant	Positive
17 Weak	Positive	Positive	Negligible	Positive
18 Weak	Positive	Positive	Significant	Positive
19 Moderate	Negative	Negative	Negligible	Negative
20 Moderate	Negative	Negative	Significant	Weak or disparate
21 Moderate	Negative	Weak or disparate	Negligible	Weak or disparate
22 Moderate	Negative	Weak or disparate	Significant	Weak or disparate
23 Moderate	Negative	Positive	Negligible	Weak or disparate
24 Moderate	Negative	Positive	Significant	Positive
25 Moderate	Weak or disparate	Negative	Negligible	Weak or disparate
26 Moderate	Weak or disparate	Negative	Significant	Weak or disparate
27 Moderate	Weak or disparate	Weak or disparate	Negligible	Weak or disparate
28 Moderate	Weak or disparate	Weak or disparate	Significant	Positive
29 Moderate	Weak or disparate	Positive	Negligible	Positive
30 Moderate	Weak or disparate	Positive	Significant	Positive
31 Moderate	Positive	Negative	Negligible	Weak or disparate
32 Moderate	Positive	Negative	Significant	Positive
33 Moderate	Positive	Weak or disparate	Negligible	Positive
34 Moderate	Positive	Weak or disparate	Significant	Positive
35 Moderate	Positive	Positive	Negligible	Positive
36 Moderate	Positive	Positive	Significant	Positive
37 Strong	Negative	Negative	Negligible	Negative
38 Strong	Negative	Negative	Significant	Weak or disparate
39 Strong	Negative	Weak or disparate	Negligible	Weak or disparate
40 Strong	Negative	Weak or disparate	Significant	Positive
41 Strong	Negative	Positive	Negligible	Positive
42 Strong	Negative	Positive	Significant	Positive
43 Strong	Weak or disparate	Negative	Negligible	Weak or disparate
44 Strong	Weak or disparate	Negative	Significant	Positive
45 Strong	Weak or disparate	Weak or disparate	Negligible	Positive
46 Strong	Weak or disparate	Weak or disparate	Significant	Positive
47 Strong	Weak or disparate	Positive	Negligible	Positive
48 Strong	Weak or disparate	Positive	Significant	Positive
49 Strong	Positive	Negative	Negligible	Positive
50 Strong	Positive	Negative	Significant	Positive
51 Strong	Positive	Weak or disparate	Negligible	Positive
52 Strong	Positive	Weak or disparate	Significant	Positive
53 Strong	Positive	Positive	Negligible	Positive
54 Strong	Positive	Positive	Significant	Positive

Negative

Positive



## Towards a discussion-making tool

- to design shared projects involving trees in agricultural areas
- to facilitate the stakeholders' participation

