



INA
Alger

The Sustainability of Algerian Dairy Farms and their Impact on the Environment

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Dairy production in Algeria

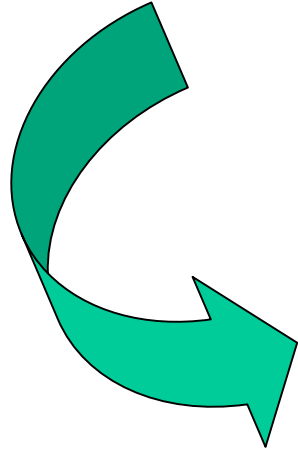
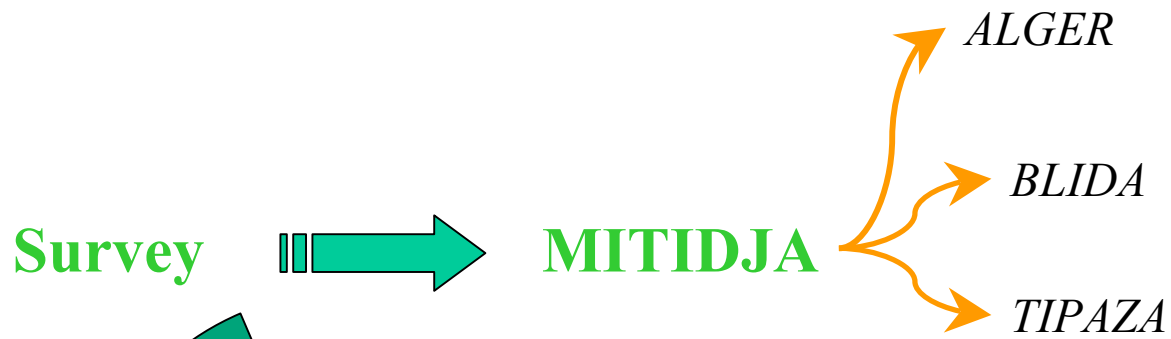
- Low productivity
- Elevated production costs
- Lack of forages
- Deficit in meat and milk (covers 40%)
- Sustainable development ?
- Objective: Assessment
 - of the sustainability of dairy farms
 - of their impact on the environment



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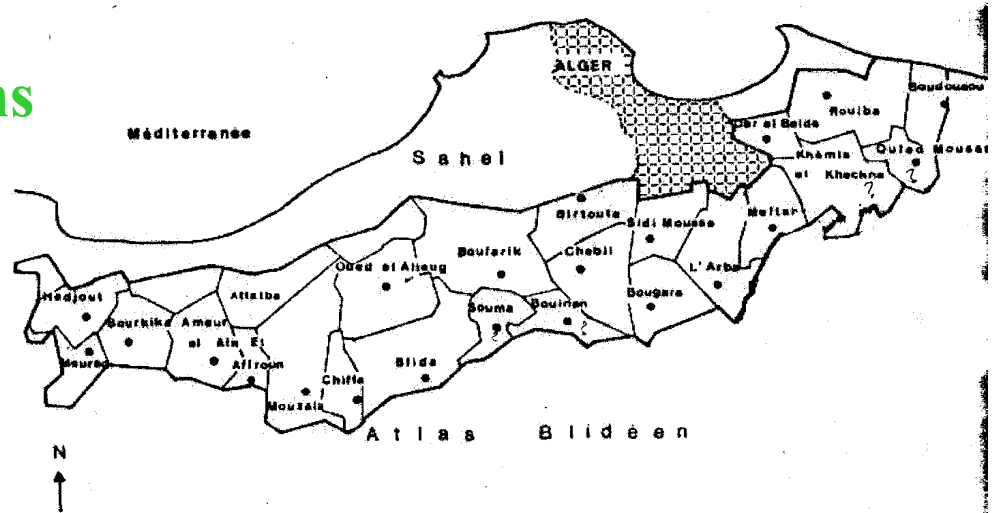
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47 dairy farms

Carte N°02 : Situation géographique de l'échantillon d'étude (la Mitidja)

MUTIN G. (1978)

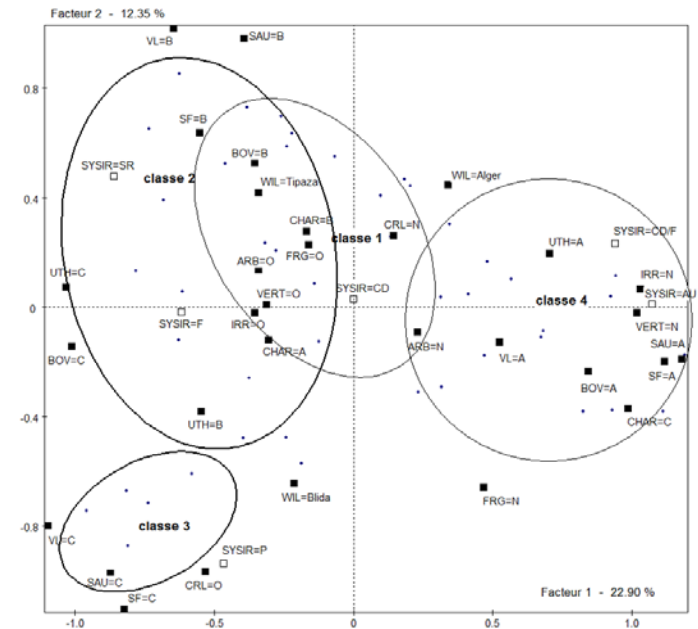


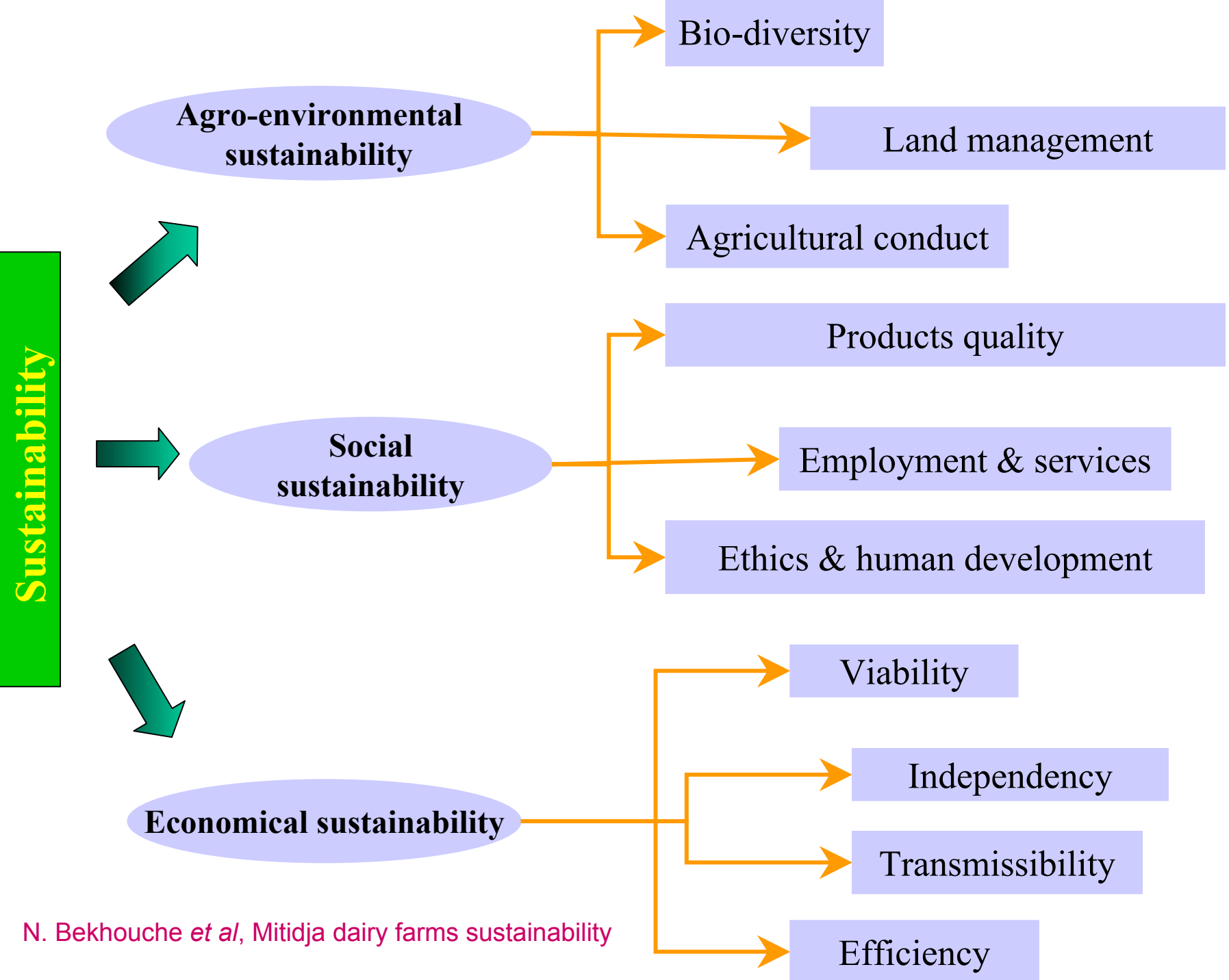


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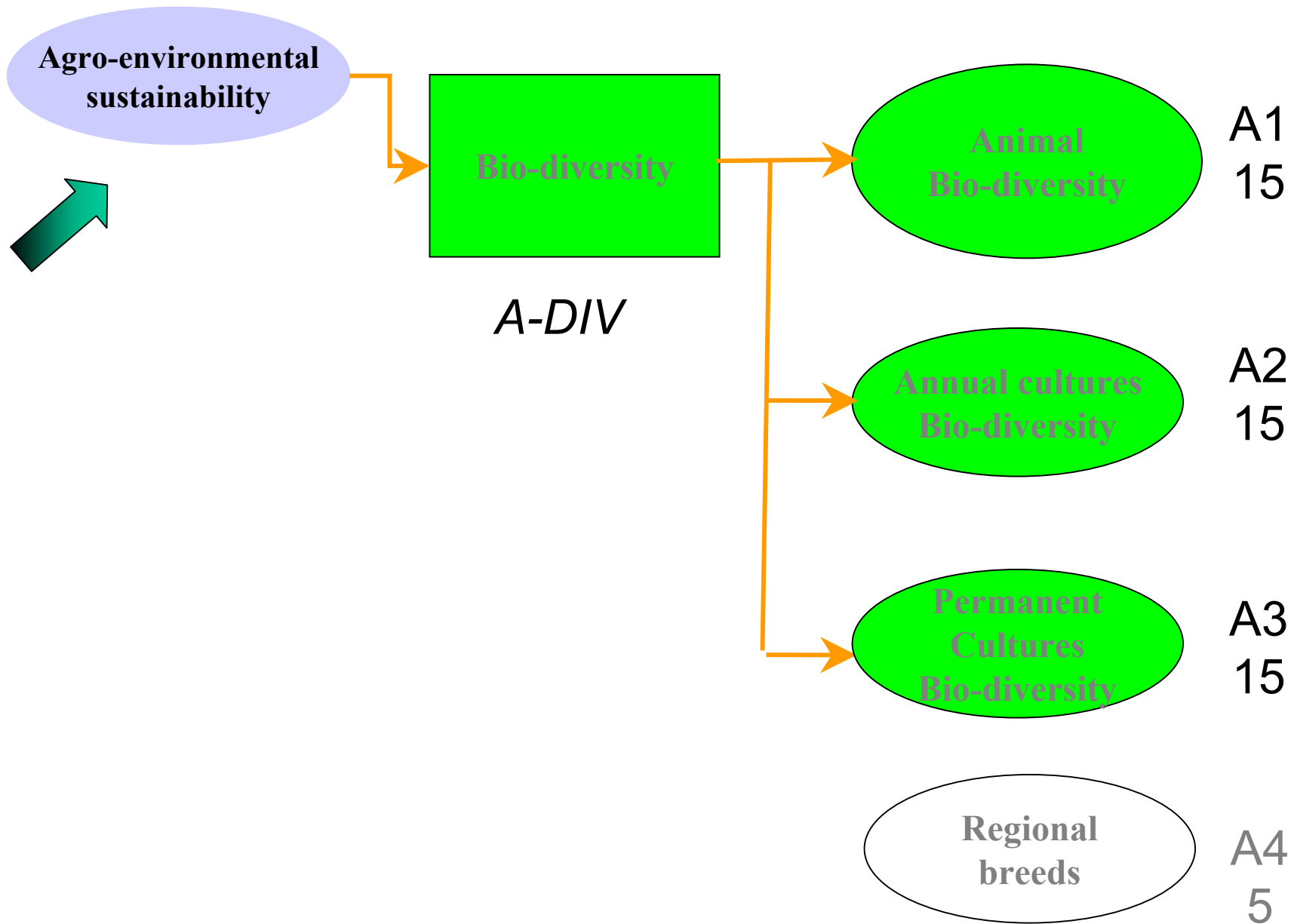
Farms typology

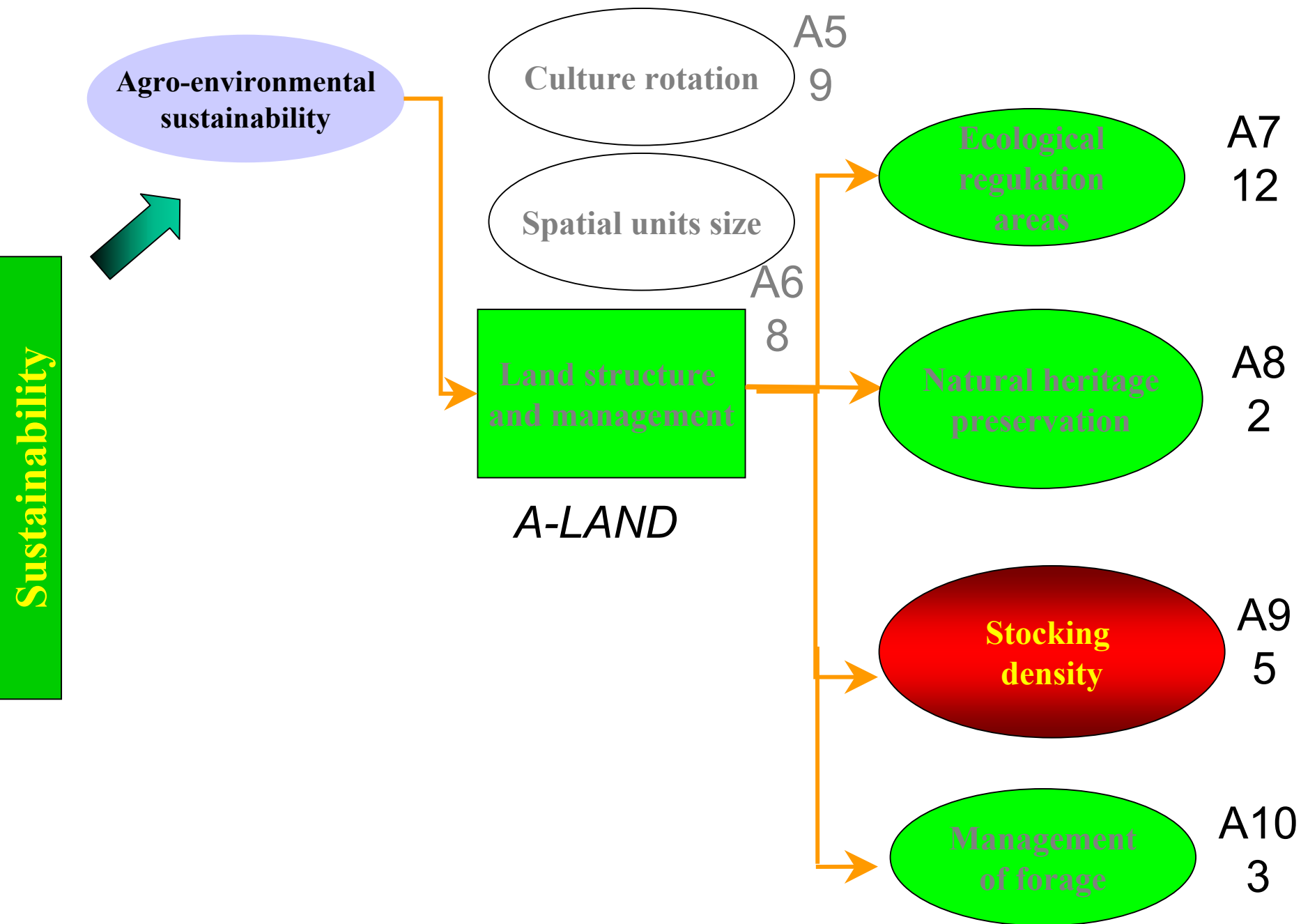
- 4 (16) surf., cows, workers
- 1 (15) surf., cows, workers
- 2 (10) surf., cows, workers
- 3 (6) surf., cows, workers



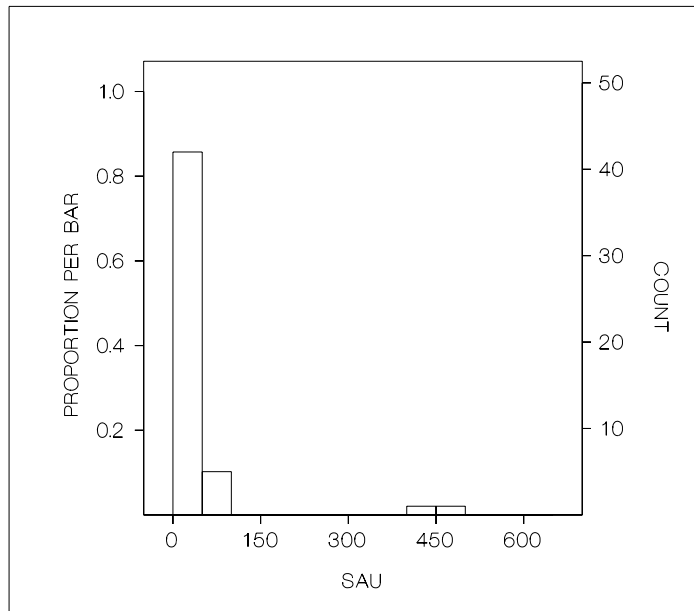


Sustainability





SAU



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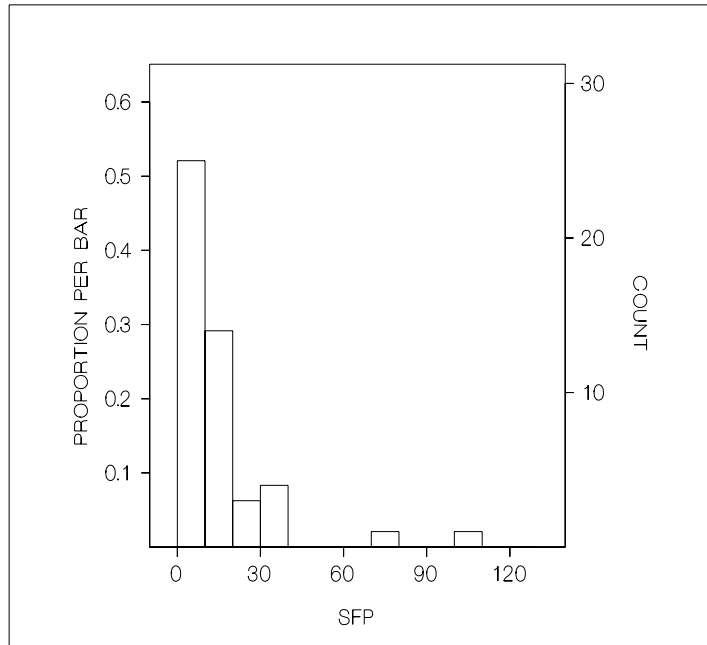
0H 0000112233333344
0 6677
1M 0001244
1 578
2 01
2 68
3H 0234
3 59
4 0
4 6
5
5
6 0
6 6
7 02
***OUTSIDE VALUES***
8 3
40 2
47 0
    
```

Min 0 ha

Max 470 ha

Moy 37 ha

SFP



```

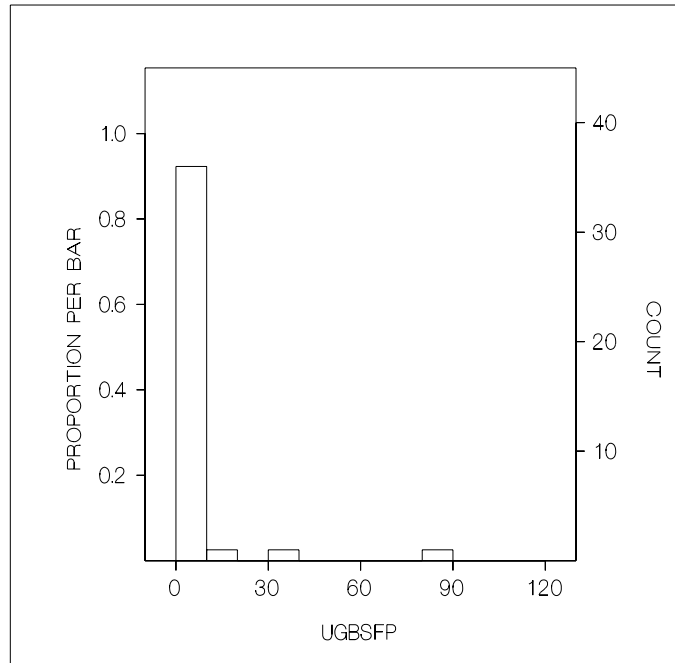
0 000001
0H 22222222333
0 555
0M 6677
0 8
1 000001
1 22
1H 45555
1 6
1
2 0
2
2 4
2
2 9
3 00
***OUTSIDE VALUES***
3 56
7 0
10 0
    
```

Min 0 ha

Max 100 ha

Moy 13 ha

UGB / SFP



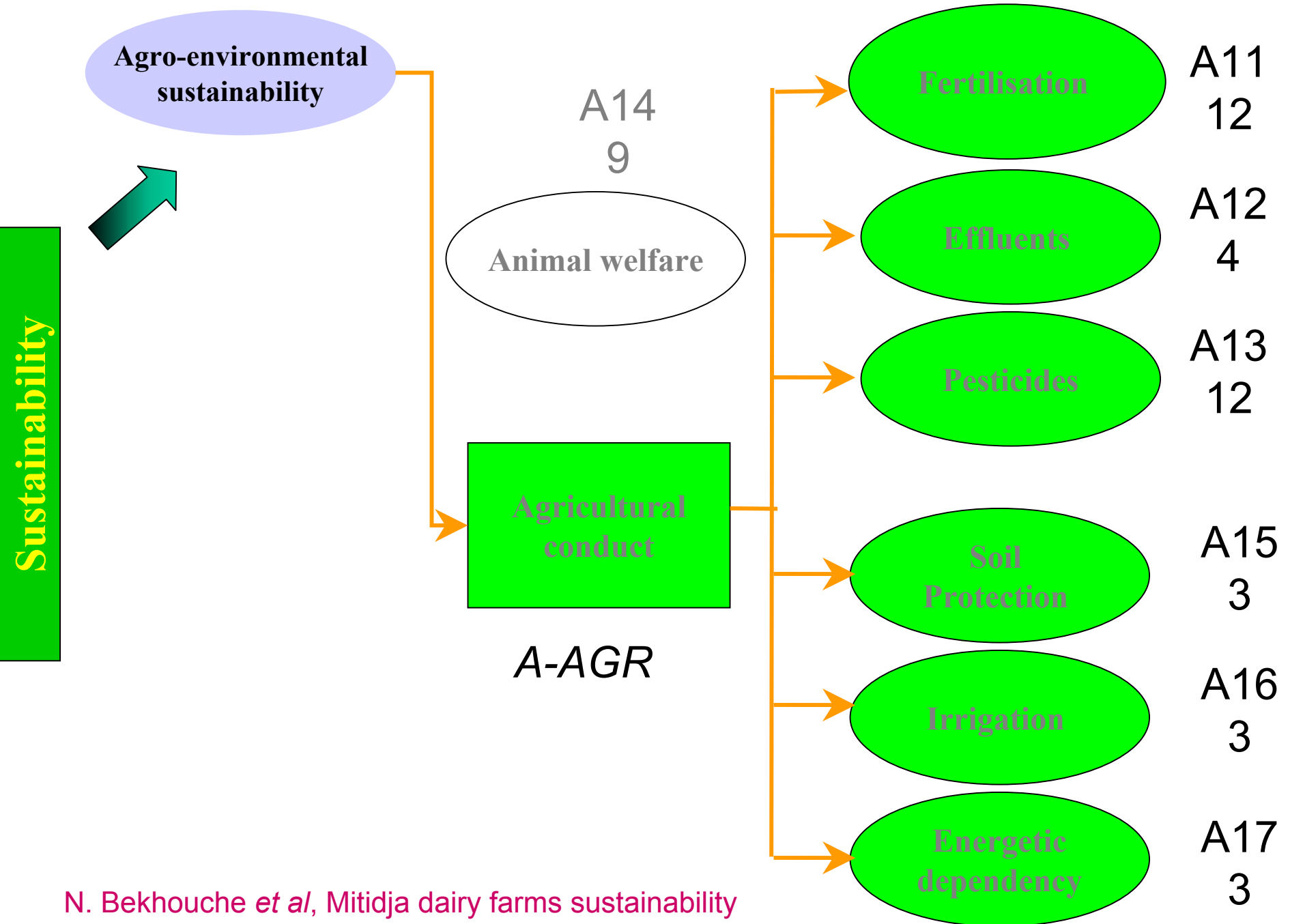
```

0 0000039
1H 16789
2 1122368
3M 349
4 014
5 6
6H 0336
7 558
8 0
9 05
10
11 2
***OUTSIDE VALUES***
30 5
84 0
    
```

Min 0 UGB / ha SFP (SFP=0)
Max 84 UGB / ha SFP
Moy 6,5 UGB / ha SFP

Stocking density

A8	ACT PTRM(CC)	Action en faveur du patrimoine naturel	BIO	Si présence d'un cahier des charges 2	2	Organisation
			PYS	Si absence d'un cahier des charges -1		de
		Chargement		Chargement: Si 0 UGB/ha (SFP=0) -2		l'espace
A9	UGB		UGB	• compris entre 0 et 1 UGB/ha 2	5	A 5
	UGB / haSFP			• compris entre 1 et 3 UGB/ha 5		A 10
	SFP			• compris entre 3 et 8 UGB/ha 3		36
				• supérieur à 8 UGB/ha 0		

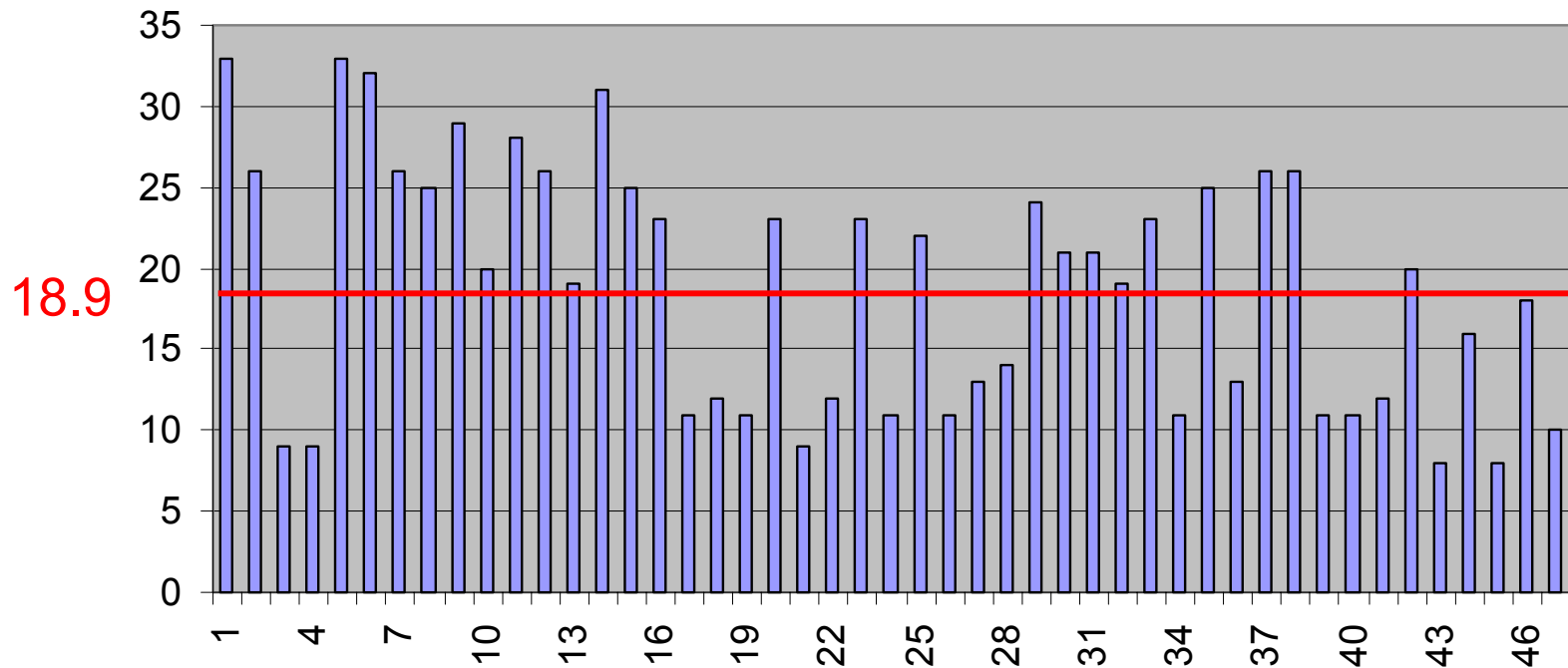


Results

- All indicators (17)
- Specifically environmentally-oriented indicators (13)
- No influence of region or typology on indicators

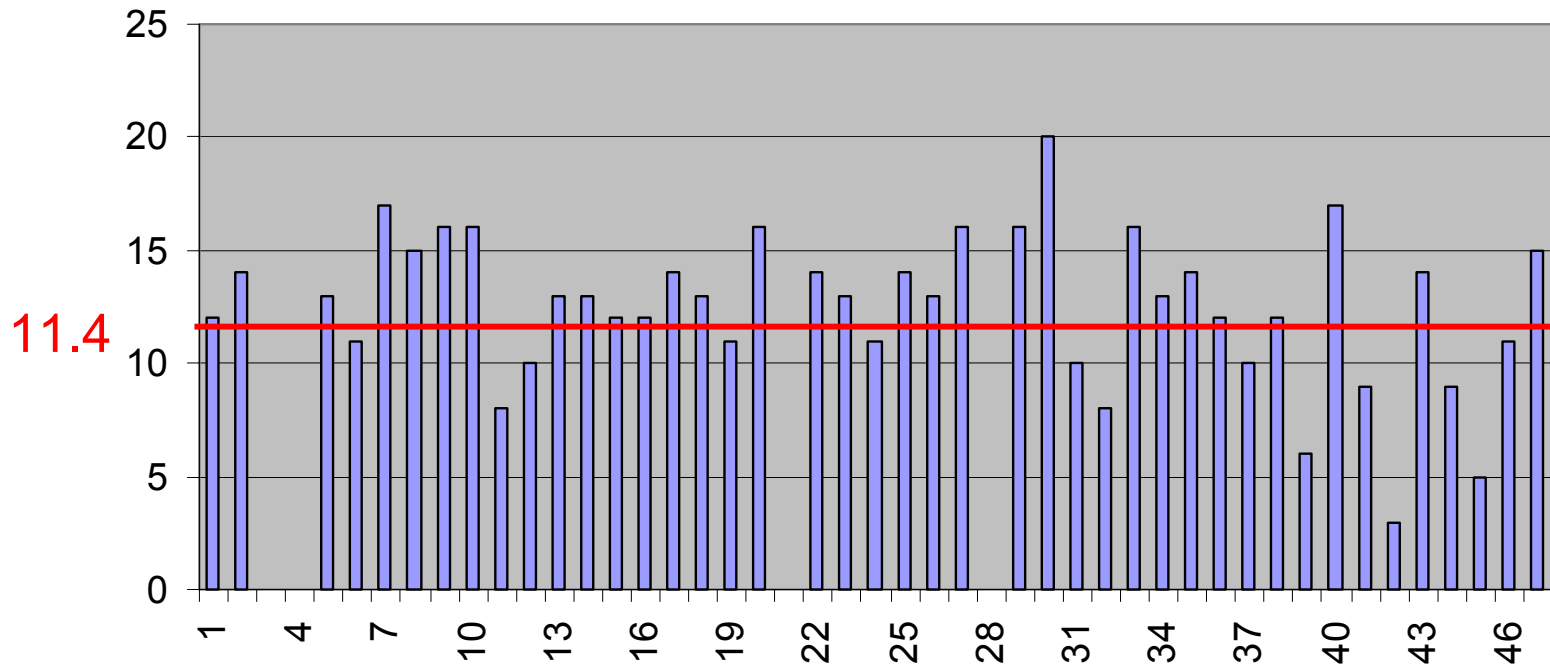
Bio-diversity (all indicators)

A-DIV

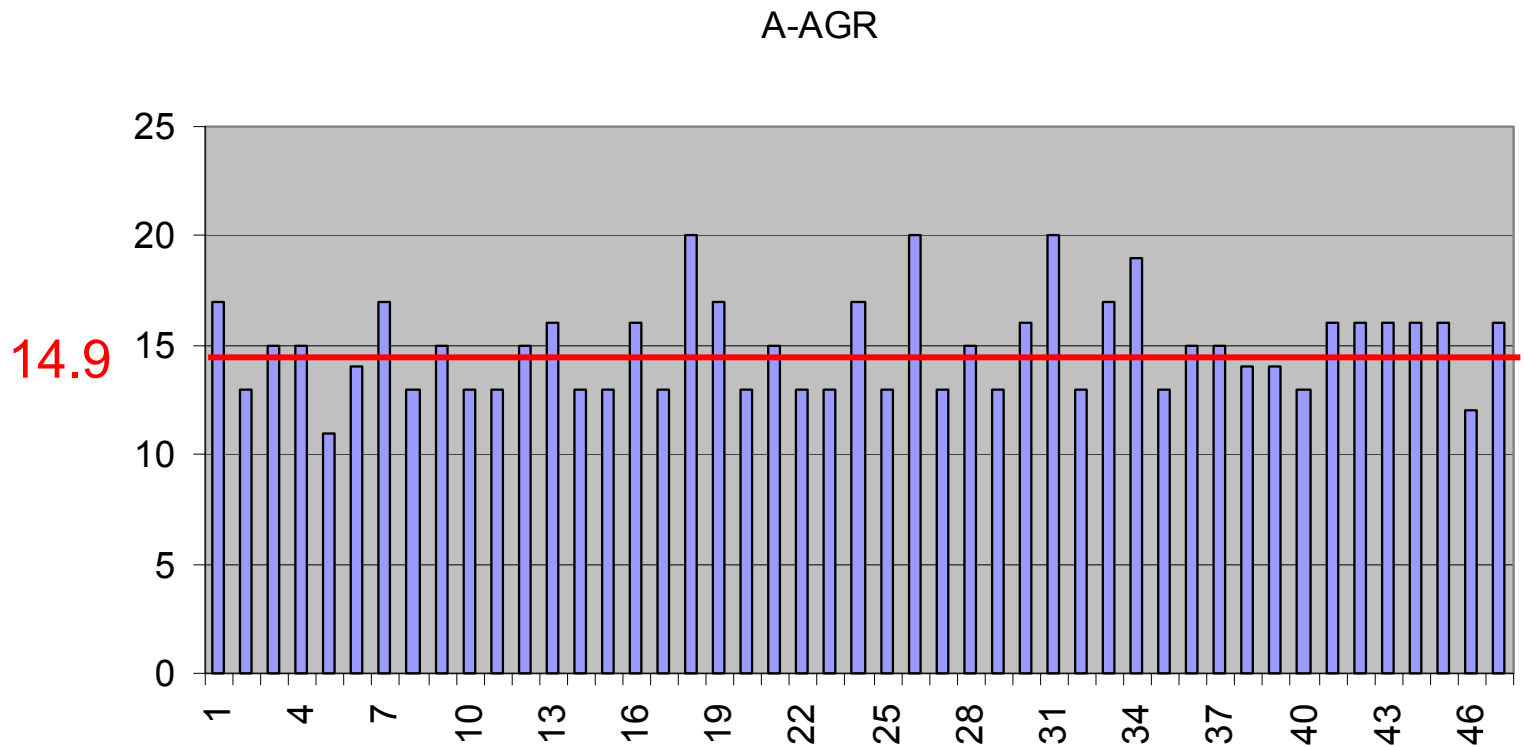


Land management (all ind.)

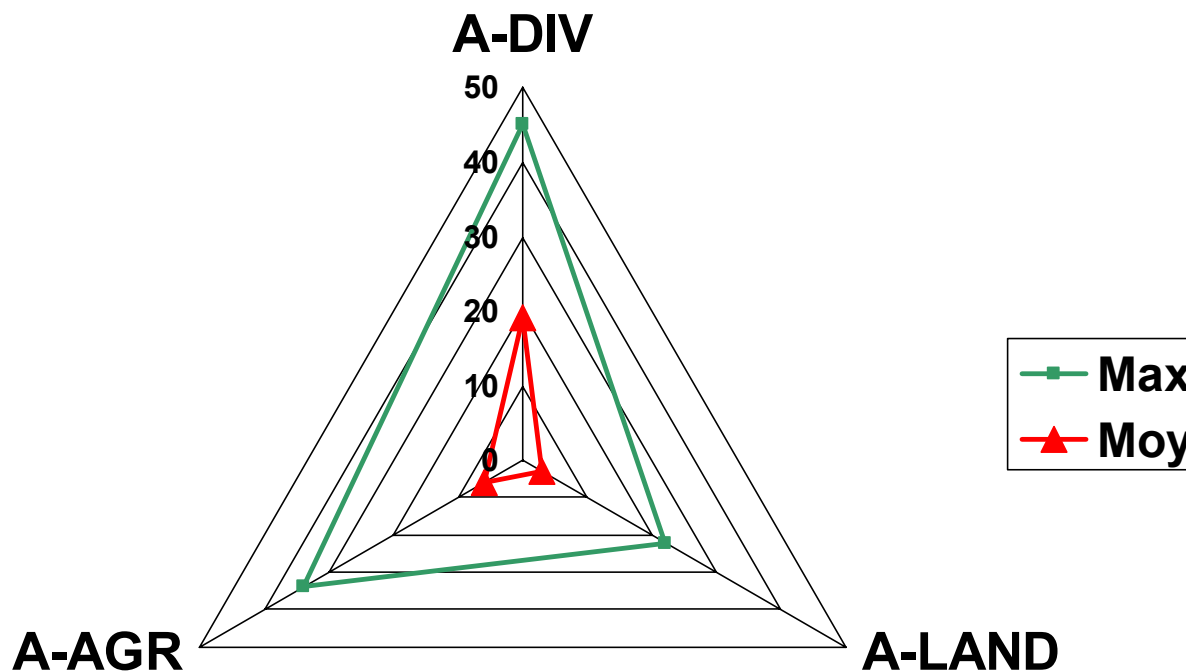
A-LAND



Agricultural conduct (all ind.)



Specifically environmentally-oriented indicators



A-DIV

- A1 + animal diversity
- A2 + vegetal diversity
- A3 -- no pastures



A-LAND

- A7 --- no ecologic regulation zone
- A8 --- no protection of natural heritage
- A9 --- high stocking density
- A10 --- forage management

A-AGR

- A11, A13: --- fertilisation, pesticides
- A12: -- effluents management
- A15: -- soil protection



Conclusions

- Negative impact on environment
 - Land management
 - Fertilisation, pesticides
 - Stocking density
 - Effluents management

