Adaptation of farmers to climate change:

a multifaceted commitment involving differentiated justifications

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Research Goals

- ✓ Sociological research about farmer's representations of climate change in France's Mediterranean regions
- ✓ Describe and interpret changes in the practices implemented by farmers to adapt to climate change
- ✓ Analysis of social perceptions seen as elements that reflect value systems

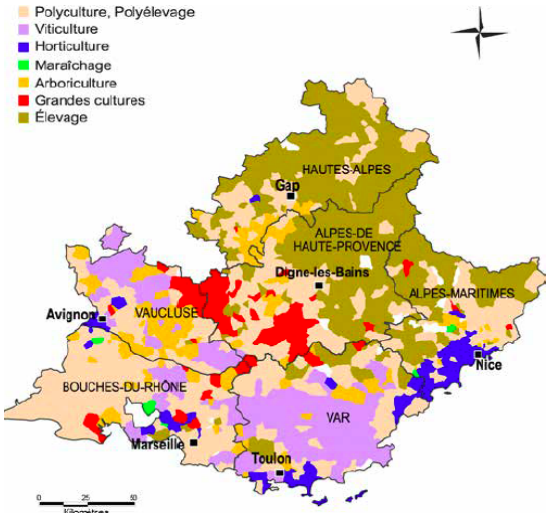
Methodology

- ✓ Survey by semi-structured interviews
- ✓ Sample: 50 farms that are representative of agriculture in the southern france region based on type of production
- ✓ Qualitative analyse of data: The sampling is thus carried out by saturation of the discourse, that is, when there is redundancy of the discourse in each additional interview.

A mediterranean agriculture : a case study in South eastern France

- In 2017: 20 430 farms; 800 000 hectares of farmland; 22 832 farmers
- Irrigated agriculture with a persistence of collectively managed gravity-fed networks (17% of farmland)
- An agricultural region with a distinct Mediterranean climate and topography: high altitude and low mountain extensive livestock farming and forage crops; Crau hay, viticulture from hillside vineyards, arboriculture and vegetable farming on alluvial plains.
- High value-added plant and produce farms: viticulture, arboriculture, horticulture and market gardening

Orientation Technico-économique des exploitations



Changes in practices linked to age and educational background

	25-40 years			41-59 years			60 years or more			Total
	Sec.	Bac	Bac+	Sec.	Bac	Bac+	Sec.	Bac	Bac+	
Yes	1	6	8	7	6	5	2	3	1	39
No	0	0	0	2	0	0	8	1	0	11
Total	1	6	8	9	6	5	10	4	1	50

adoption of adaptive practices in function of age and educational qualifications (number of people)

- As we can see from this table, the educational level and age are determinant in the adoption of new practices. Of the 14 farmers with higher education qualifications, all have adapted their practices. Conversely, among the 11 farmers who have not changed their practices, 10 had the level of qualifications of a short secondary education cycle.

Farming practices in transformation

Type of practice	Viti-culture	Fruit farming	Livestock farming	Cereals	Mixed farming	Horti-culture	Market gardening	Total
Saving water	8	7	4	4	2	3	3	30
Introduction of new species	4	2		1		1	2	10
New tillage techniques	5	3		1		1	3	13
Partial or total conversion of the farm	2	1	1				2	6

Declared adaptations of farming practices for climate change

- Among the 39 farmers concerned by a change in practices, the majority made adjustments by reducing the quantity of water used for irrigation (30 out of 39). For some of them, the reduction in water consumption may be accompanied by new farming techniques, ranging from the introduction of new species (for 10 farmers), in an experimental approach or not, or the introduction of new tillage methods (for 13 farmers) .

Decision-making related to insertion within professional networks

Decision-making network	Neighbourhood network	Professional farming community	Outside farming community
Cited 1st	14	18	7
Cited 2nd	19	11	9
Cited 3rd	6	10	11
Total	39	39	27

Typology of networks of decision-making of farmers who have changed their practices

- The vectors of information which most influence the decision-making process of farmers are linked to the networks of the professional farming community and local networks.

Changes in practices integrated in the value systems specific to the farming community

A common reference to the 'small farmer ideology'

- Autonomy
- Ownership of the means of production
- Independence from intermediaries
- Working with the soil

A differentiated appropriation of the reference to ecology

Ecological modernization : integration within modernity

- Technical and scientific progress are the basis of agricultural activity
- Environmental protection (protecting biodiversity) is connected to economic results (quality and price of products)
- Innovation allows biological control

A global ecological approach

- Respect for the natural balance of nature and living organisms
- Working with nature rather than against it (interactions, interdependencies, the working of agrosystems)
- Toward an alternative development model

Thank you for your attention