

Supplementary material

Table S1. Questionnaire

ID	Variables	Structural value (for data analysis)	Definition (Legend values)
Farmers characteristics			
FS1	Age	1, 2, 3, 4, 5	If age of the farmer is between (years): Less than 40 years 1, 41-50 years 2, 51-60 years 3, More than 60 years 4, Retired 5
FS2	Education	1, 2, 3, 4, 5	If the farmer is: Illiterate 1, primary school graduate 2, secondary-high school graduate 3, professional studies 4, higher studies 5
FS3	Farming experience	1, 2, 3, 4, 5	If the farmers experience is: Less than 5 years 1, 5-15 years 2, 16-29 years 3, 30-45 years 4, more than 45 years 5
FS4	Succession	0, 1, 2	If it is expected that someone (family member or outsider) will take care of the activity once the farmer was retired 1, if not (0) and unknown (2)
FS5	Union farm membership	0, 1	If the farmer is member of a union farm 1, if not 0
FS6	Beneficiary of agricultural subsidy (e.g., CAP)	0, 1	If the farmer is benefited from agricultural subsidies: No (0), Yes (1)
Farm characteristics			
FC1	Farm size	1, 2, 3, 4, 5	If the farmer' activity is developed in: Less than 1 ha 1, 1-5 ha 2, 6-10 ha 3, 11-20 ha 4, more than 20 ha 5
FC2	Main crop	1, 2, 3, 4, 5, 6, 7, 8, 9	If the farmer mainly produces: Citrus 1, medlar 2, nuts-almonds 3, vegetables 4, oilseed-olives 5, ornamentals 6, pomegranate 7, melon 8, or mixed 9
FC3	Irrigation method	1, 2, 3, 4	If the farmer applies: surface irrigation 1, drip irrigation 2, sprinkler irrigation 3, or mixed methods 4
FC4	Annual water consumption	0, 1, 2, 3, 4, 5	If the farmer consumes (year): Less than 1,000 m ³ 1, 1,001-2,000 m ³ 2, 2,001-5,000 m ³ 3, 5,001-10,000 m ³ 4, more than 10,000 m ³ 5, or no data 0
FC5	Treated wastewater use	0, 1	If the farmer uses treated wastewater 1, if not 0
FC6	Treated wastewater quality standards	0, 1	If the farmer considers that treated wastewater quality standards are good 1, if not 0, or unknown 2
Climate change awareness			

PE1	Climate change is occurring	0, 1, 2	Disagree (0), Agree (1), I do not know (2)
PE2	Climate change is anthropogenic	0, 1, 2	Disagree (0), Agree (1), I do not know (2)
PE3	Climate change poses agriculture at risk	0, 1, 2	Disagree (0), Agree (1), I do not know (2)
PE4	Irrigated crops are exposed to climate change	0, 1, 2	Disagree (0), Agree (1), I do not know (2)
PE5	Awareness of warming	0, 1, 2	No (0), Yes (1), I do not know (2)
PE6	Awareness of water shortage	0, 1, 2	No (0), Yes (1), I do not know (2)
PE7	Awareness of extreme events (e.g., drought, floods)	0, 1, 2	No (0), Yes (1), I do not know (2)
Perceived Impacts			
IM1	Change in timing, intensity or frequency of rainfall events	0, 1, 2	No (0), Yes (1), I do not know (2)
IM2	Warmer temperatures and heatwaves	0, 1, 2	No (0), Yes (1), I do not know (2)
IM3	Increased frequency or intensity of droughts	0, 1, 2	No (0), Yes (1), I do not know (2)
IM4	Less reliable water supply - water scarcity	0, 1, 2	No (0), Yes (1), I do not know (2)
IM5	Change in rate of land erosion	0, 1, 2	No (0), Yes (1), I do not know (2)
IM6	Decreased plant growth	0, 1, 2	No (0), Yes (1), I do not know (2)
IM7	New diseases or pests	0, 1, 2	No (0), Yes (1), I do not know (2)
IM8	Increase in weeds or invasive species	0, 1, 2	No (0), Yes (1), I do not know (2)
Current adaptation measures			
CA1	Soil conservation techniques	0, 1, 2, 3, 4, 5	If the farmer applies no-till farming and crop rotation and diversification (1), drought tolerant varieties (2), mixed cropping (3), changing planting dates (4), others (5), or Not (0)
CA2	Use of treated wastewater	0, 1	If the farmer considers the use of treated wastewater as a counterpoint to the river transfers: No (0), Yes (1)
CA3	Invest in water technologies	0, 1, 2, 3, 4	If the farmer develops physical harvesting (1), promotes water efficiency through intermittent irrigation or water recycling techniques (2), introduces organizing mechanisms (water tariffs) (3), others (4), or Not (0)

CA4	Geoengineering	0, 1	If the farmer stands for applying geoengineering (like artificial modification of clouds system): No (0), Yes (1)
CA5	Agroforestry practices	0, 1, 2, 3, 4, 5, 6	If the farmer plants shaded trees (1), silvipasture (2), windbreaks (3), alley cropping systems (4), forest farming (5), others (6), Not (0)
CA6	Application of agro-chemicals	0, 1	If the farmer applies agro-chemicals to face pests and diseases: No (0), Yes (1)
CA7	Agricultural insurance	0, 1	If the farmer contracts an insurance: No (0), Yes (1)
Barriers to adaptation			
BA1	Climate change skepticism	0, 1, 2	No (0), Yes (1), I do not know (2)
BA2	Low risk perception	0, 1, 2	No (0), Yes (1), I do not know (2)
BA3	Shock towards change	0, 1, 2	No (0), Yes (1), I do not know (2)
BA4	Lack of information and data	0, 1, 2	No (0), Yes (1), I do not know (2)
BA5	High cost of investment and changing market	0, 1, 2	No (0), Yes (1), I do not know (2)
BA6	Lack of government support	0, 1, 2	No (0), Yes (1), I do not know (2)
BA7	Regulations and rules are too complicated	0, 1, 2	No (0), Yes (1), I do not know (2)
BA8	Lack of cooperation between stakeholders	0, 1, 2	No (0), Yes (1), I do not know (2)