

Formulate research questions

Exercise

MODEL ANSWER

This model answer was built during a study conducted in the Causses Méridionaux region (Southern Causses) of southern France in 2009 by researchers and students in a training programme (Sibelet *et al.*, 2010; Sibelet *et al.*, 2010a).

REMINDER OF THE INSTRUCTIONS:

Based on the presentation of the study area (Larzac case study), respond to the following questions:

1. Identify the individuals who should be interviewed.
2. What may be their objectives and stakes relative to the study?
3. What main research questions can you formulate?
4. Develop each of these main research questions into 2 or 3 secondary research questions. Put your questions into a hierarchical order according to your topic.
5. What are the main topics of your study? Make a list of the main topics to be studied and highlight them in the questions you listed in step 4.
6. In each of your main and secondary research questions,
 - o 6.1 identify the terms mentioning stakeholders
 - o 6.2 identify the concepts and other terms related to stakeholders' attributes
 - o 6.3 identify the concepts and other terms related to the study topics.
7. Are those terms well defined? If they are polysemous and/or poorly defined, reformulate your questions to eliminate the faults: polysemous words, value judgments,...

MODEL ANSWER:

Questions 1, 2

Who	Objectives	Stakes
Elected officials	Ensure survival of community	To be re-elected/inhabitants satisfaction
Regional Direction for Environnement (DIREN)	Promote biodiversity	Applying Natura 2000 chart
Residents		
--> native	Continuation and development of local economic activity and culture	Maintenance and protection of livelihoods
--> migrants from city	Enjoy pleasant surroundings	Change in landscape aesthetics
Tourists	Enjoy quality leisure activities	Sustainability of leisure activities
Students and researchers involved in the study	Acquire field survey skills and develop network of contacts	Enjoyable but productive experience
Livestock Institute	Develop sylvo-pastoralism	Maintain local rural population
Centre of Initiatives for the Environment (CPIE)	1. To know the opinion of the stakeholders on pastoralism	4-year CPIE planning
	2. To nurture their 4-year plan	Accreditation of the Causes Landscape as a United Nations Educational, Scientific and Cultural Organization (UNESCO) world heritage site
Commissioner	1. To maintain good relation with Research	She is the only permanent staff member of CPIE
	2. To acknowledge the particularities of agropastoralism in the incentive framework	
	3. To check the interest of CPIE stakeholders to maintain agropastoral landscapes and lifestyle	
Agriculteurs (polyculture)		
Cattle ranchers	To transmit their knowledge and points of view	Time spent with us, its opportunity cost
	To defend their particular land use	What they can learn from the discussion with us
		Citizen concern with transmission of information
Ovine dairy farmers	Ease the "appellation d'origine controlee" (AOC) (controlled designation of origin	Conditions to continue selling milk to Roquefort
Chasseurs		

Nature Conservancy of Languedoc-Roussillon (CEN L-R)	Use this info to promote landscape biodiversity conservancy	Disappearance of agropastoral landscapes
Caves de Roquefort		
Professionnels du tourisme		

Questions 3, 4. Research questions and hypotheses (MRQ = main research question)

	Question	Hypothesis
MRQ1	What are the perceptions, wishes and roles of different stakeholders regarding the <i>evolution of landscapes</i> in the Causses?	Stakeholders are aware of landscapes changes They consider the perceived evolution as negative
Secondary questions 1	To what extent do different groups prefer pasture lands to forests (related to Environmental Services)	Other stakeholders want to maintain/restore traditional agropastoralism
	To what extent can the concept of landscape biodiversity promote conservation and agricultural diversity?	The concept of landscape biodiversity promotes conservation and agricultural diversity to a great extent
	What (if any) additional incentives will be required to conserve rangelands?	Information on landscape biodiversity will be more effective in conserving rangelands than current available levels of subsidies (Natura 2000...)
MRQ2	To what extent is <u>agropastoralism at stake</u> for the Southern Causses territory?	Agropastoralism is an opportunity for the Southern Causses territory management
Secondary questions2	What are the stakeholders' perceptions of <i>agropastoralism</i> ?	Agropastoralism is a sustainable way to manage the territory
	What are the functions of rangelands?	Rangelands are multifunctional and useful for all stakeholders
	What is the relation between CPIE actions and inhabitants' desires?	Inhabitants are part of CPIE
MRQ3	What are the current perceptions of <i>agropastoralism</i> ?	Current perceptions are similar to that of technical experts
Secondary questions3	What constitutes agropastoralism as perceived by stakeholders?	Agropastoralism includes silvopastoralism
	What are the current strategies of stakeholders with regard to agropastoralism?	Stakeholders want to maintain agropastoralism in the landscape
	What values do the stakeholders attach to agropastoralism?	Agropastoralism is a sustainable enterprise.
MRQ4	Can agropastoralism be maintained in the Southern Causses as a driver of ecological equilibrium?	Agropastoralism can be maintained in the Southern Causses as a driver of ecological equilibrium, if practices are adapted to environmental needs
Secondary questions4	How are the <i>rangelands</i> important to local stakeholders?	Rangelands support sustainable rural activities
	Can agropastoralism remain a viable livelihood?	If Environmental Services are recognized and supported
	Can we conciliate environment and development of livestock	If there is a platform of active stakeholders to support it
MRQ5	How do different stakeholders perceive agrosylvopastoralism?	Different stakeholders have different perceptions of agrosylvopastoralism
Secondary questions5	Why does CPIE want to know the perception of stakeholders?	Differences of perceptions could slow down CPIE projects
	What are the benefits of agrosylvopastoralism for farmers?	Agrosylvopastoralism increases ecological services at a landscape level
	How can agrosylvopastoralism improve incomes?	The farmers reduce their incomes with agrosylvopastoralism

MRQ6	How do stakeholders' <i>value agropastoralism</i> in the southern Causses?	Stakeholders value agropastoralism according to the perceived benefits
Secondary questions6	Is agropastoralism a viable land use practice in the Southern Causses?	Agropastoralism can be a viable land use practice if it is linked with a new conception of the landscape (i.e. Environmental Services)
	Can agropastoralism address stakeholders' interests in the Southern Causses?	Agropastoralism is not the main driver to address stakeholders' interests in the Southern Causses

Question 5. Main topics of the study? : landscape, pasture lands, rangelands, agropastoralism, environment, agrosylvopastoral

	Question
MRQ1	What are the perceptions, wishes and roles of different stakeholders regarding the <i>evolution of landscapes</i> in the Southern Causses. ?
Secondary questions 1	To what extent do different groups prefer <i>pasture lands</i> to forests (related to Environmental Services)?
	To what extent can the concept of <i>landscape</i> biodiversity promote conservation and agricultural diversity?
	What (if any) additional incentives will be required to conserve <i>rangelands</i> ?
MRQ2	To what extent is <i>agropastoralism</i> at stake on the Southern Causses territory?
Secondary questions2	What are the stakeholders' perceptions of <i>agropastoralism</i> ?
	What are the functions of <i>rangelands</i> ?
	What is the relation between CPIE actions and inhabitants' desires?
MRQ3	What are the current perceptions of <i>agropastoralism</i> ?
Secondary questions3	What constitutes <i>agropastoralism</i> as perceived by stakeholders?
	What are the current strategies of stakeholders regarding <i>agropastoralism</i> ?
	What values do the stakeholders attach to <i>agropastoralism</i> ?
MRQ4	Can <i>agropastoralism</i> be maintained in the Southern Causses as a driver of ecological equilibrium?
Secondary questions4	How are the <i>rangelands</i> important to local stakeholders?
	Can <i>agropastoralism</i> remain a viable livelihood?
	Can we conciliate <i>environment</i> and development of livestock?
MRQ5	How do different stakeholders perceive <i>agrosylvopastoralism</i> ?
Secondary questions5	Why does CPIE want to know the perceptions of stakeholders?
	What are the benefits of <i>agrosylvopastoralism</i> for farmers?
	How can <i>Agrosylvopastoralism</i> improve incomes?
MRQ6	How do stakeholders' <i>value agropastoralism</i> in the southern Causses?
Secondary	Is <i>agropastoralism</i> a viable land use practice in the Southern Causses?

questions6

Can *agropastoralism* address stakeholders' interests in the Southern Causses?

Question 6.1 Stakeholders concerned ? : stakeholders (different, local), different groups, cattle ranchers, inhabitants, farmers, we, CPIE

	Question
MRQ1	What are the perceptions, wishes and roles of different stakeholders regarding the <i>evolution of landscapes</i> in the Causses?
Secondary questions 1	To what extent do different groups prefer pasture lands to forests (related to Environmental Services)?
	To what extent can the concept of landscape biodiversity promote conservation and agricultural diversity?
	What (if any) additional incentives will be required to conserve rangelands?
MRQ2	To what extent is agropastoralism at stake on the Southern Causses territory?
Secondary questions2	What are the perceptions of agropastoralism for stakeholders?
	What are the functions of rangelands?
	What is the relation between CPIE actions and inhabitants' desires?
MRQ3	What are the current perceptions of agropastoralism ?
Secondary questions3	What constitutes agropastoralism as perceived by stakeholders?
	What are the current strategies of stakeholders regarding agropastoralism?
	What values do stakeholders attach to agropastoralism?
MRQ4	Can agropastoralism be maintained in the Southern Causses as a driver of ecological equilibrium?
Secondary questions4	How are the rangelands important to local stakeholders?
	Can agropastoralism remain a viable livelihood?
	Can we conciliate environment and development of livestock?
MRQ5	How do different stakeholders perceive agrosylvopastoralism?
Secondary questions5	Why does CPIE want to know the perceptions of stakeholders?
	What are the benefits of agrosylvopastoralism for farmers?
	How can agrosylvopastoralism improve incomes?
MRQ6	How do stakeholders' value agropastoralism in the southern Causses?
Secondary questions6	Is agropastoralism a viable land use practice in the Southern Causses?
	Can agropastoralism address stakeholders' interests in the Southern Causses?

Question 6.2. Concepts and other terms related to stakeholders' attributes: perceptions, wishes, preferences, agreement, desires, strategies, importance, interests, values, benefits, and roles - CPIE: relation, motivations
 (les couleurs de surlignage servent à repérer ces concepts dans les tableaux suivants)

	Question
MRQ1	What are the perceptions, wishes and roles of different stakeholders regarding the <i>evolution of landscapes</i> in the Causses?
Secondary questions 1	To what extent do different groups prefer pasture lands to forests (related to Environmental Services
	To what extent can the concept of landscape biodiversity promote conservation and agricultural diversity?
	What (if any) additional incentives will be required to conserve rangelands?
MRQ2	To what extent is <i>agropastoralism</i> at stake for the Southern Causses territory?
Secondary questions2	What are the perceptions of <i>agropastoralism</i> for stakeholders?
	What are the functions of <i>rangelands</i> ?
	What is the relation between CPIE actions and inhabitants' desires?
MRQ3	What are the current perceptions on <i>agropastoralism</i> ?
Secondary questions3	What constitutes agropastoralism as perceived by stakeholders?
	What are the current strategies of stakeholders regarding agropastoralism?
	What values do stakeholders attach to agropastoralism?
MRQ4	Can agropastoralism be maintained in the Southern Causses as a driver of ecological equilibrium?
Secondary questions4	How are the <i>rangelands</i> important to local stakeholders?
	Can agropastoralism remain a viable livelihood?
	Can we conciliate environment and development of livestock
MRQ5	How different stakeholders perceive <i>agrosylvopastoralism</i> ?
Secondary questions5	Why does CPIE want to know the perception of stakeholders?
	What are the benefits of <i>agrosylvopastoralism</i> for farmers?
	How can agrosylvopastoralism improve incomes?
MRQ6	How do stakeholders' value <i>agropastoralism</i> in the southern Causses?
Secondary questions6	Is <i>agropastoralism</i> a viable land use practice in the Southern Causses?
	Can agropastoralism address stakeholders' interests in the Southern Causses?

Question 6.3. Concepts and other terms related and to the study topics: evolution, regeneration, biodiversity, promote conservation and agricultural diversity, to conserve, functions, a driver of ecological equilibrium, remain a viable livelihood, viable land use practice, address stakeholders' interests

	Question
MRQ1	What are the perceptions, wishes and roles of different stakeholders on the evolution of <i>landscapes</i> in the Causses?
Secondary questions 1	To what extent do different groups prefer <i>pasture lands</i> to forests (related to Environmental Services)?
	To what extent can the concept of <i>landscape</i> biodiversity promote conservation and agricultural diversity?
	What (if any) additional incentives will be required to conserve <i>rangelands</i> ?
MRQ2	To what extent is <i>agropastoralism at stake</i> for the Southern Causses territory?
Secondary questions2	What are the perceptions of <i>agropastoralism</i> for stakeholders?
	What are the functions of <i>rangelands</i> ?
	What is the relation between CPIE actions and inhabitants' desires?
MRQ3	What are the current perceptions on <i>agropastoralism</i> ?
Secondary questions3	What constitutes <i>agropastoralism</i> as perceived by stakeholders?
	What are the current strategies of stakeholders regarding <i>agropastoralism</i> ?
	What values do stakeholders attach to <i>agropastoralism</i> ?
MRQ4	Can agropastoralism be maintained in the Southern Causses as a driver of ecological equilibrium?
Secondary questions4	How are the <i>rangelands</i> important to local stakeholders?
	Can agropastoralism remain a viable livelihood?
	Can we conciliate <i>environment</i> and development of livestock?
MRQ5	How different stakeholders perceive agrosylvopastoralism?
Secondary questions5	Why does CPIE want to know the perception of stakeholders?
	What are the benefits of agrosylvopastoralism for farmers?
	How can agrosylvopastoralism improve the incomes?
MRQ6	How do stakeholders' value <i>agropastoralism</i> in the southern Causses?
Secondary questions6	Is agropastoralism a viable land use practice in the Southern Causses?
	Can agropastoralism address stakeholders' interests in the Southern Causses?

Question 7

Example of main research question reformulated.

We eliminated the terms, "wishes" and "roles", which were too polysemous, to concentrate on "perception" in the main research question, and "strategies", "practices" and "values" in the secondary research questions. "Perception", "strategies", "practices" "values" are concepts commonly used in different scientific disciplines.

Main Research Question : What are the stakeholders' perceptions of the evolution of the landscape on the Southern Causses?

Secondary questions

What are their strategies?

- Knowledge about landscape evolution,
- Objectives,
- Means mobilized.

What are their practices?

What are their values applied to the landscape?

► Bibliography cited:

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