

## The contribution of livestock farms diversity to ensure the sustainability of small ruminant systems in the Mediterranean region



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This communication deals with : *The contribution of livestock farms diversity to ensure the sustainability of small ruminant systems in the Mediterranean region.*

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**Characterising and evaluating diversity of LFS**

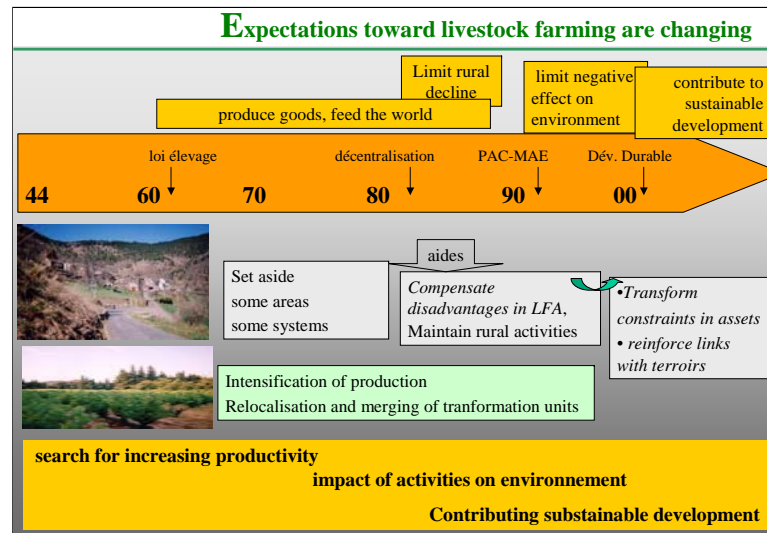
- **Expectations toward livestock farming**
- **Diversity of LFS: 2 cases studies**
- **Complementarities between types of LFS**
- **Consequence for the evaluation of LFS**

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It seems to us particularly important to characterise and evaluate diversity of LFS. That question is not new, but change in agriculture is supporting some renewal of the question. So, we will in these presentation develop four points:

- Expectations toward livestock farming
- Diversity of LFS: 2 cases studies
- Complementarities between types of LFS
- Consequence for the evaluation of LFS.

Nous aborderons 4 points: Attentes envers l'élevage, Diversité des LFS: 2 exemples en milieux méditerranéens, La diversité et la complémentarité entre LFS est une ressource, Conséquences sur l'évaluation



Expectations toward LFS are changing. ▶ We can illustrate that, through French agricultural policy during past decades. Four types of issues were or are addressed to LFS.

- ▶ produce goods to feed the world that promote increasing of productivity.
- ▶ One consequence of that is intensification of LFS and regional concentration in lowlands mainly.
- ▶ And, in response a set aside of LFS of highlands and mediterranean regions. ▶ For these areas, political issue tried to limit decline through subsidies for Less Favorable Areas (LFA).
- ▶ There were through to compensate disadvantage toward expected level of productivity.

Real changes occur with 1992 CAP that consist in limiting increasing of produced volume and introduced concernment toward environmental impacts.

In the beginning of the century issues concerning sustainable development occur reinforcing that change.

▶ Toward regions previously called LFA the question became: « how to take benefits of their situations, linking activities to local development within their « terroirs » ».

▶ In these areas, evaluation of quality of LFS has been successfully focused on productivity; then on

## How to characterize and evaluate LFS according to moving expectation?

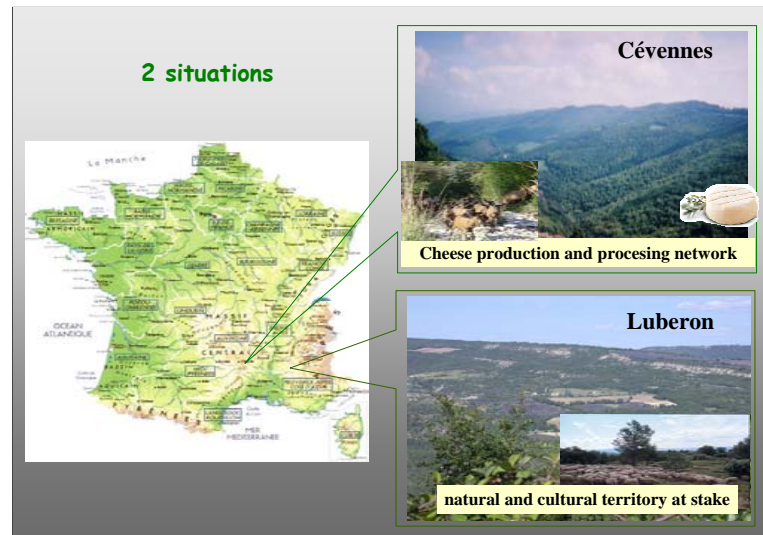


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Our question is so how to characterize and evaluate LFS according to these moving expectations?

L'évaluation étant évolutive : comment caractériser et évaluer les LFS?



› We will illustrate this with 2 case studies in South Eastern France. The question is: « how to evaluate farming systems taking into account these changes toward issues, addressed to farming systems at individual and collective level. Two localisation for these studies well know for landscape and touristic interest: Luberon and Cevennes...

› First case, in the territory of Luberon regional park, sheep farming is very present and expectations towards it is concerning environment question.

› How to favor livestock practices contributing in maintain of biodiversity?

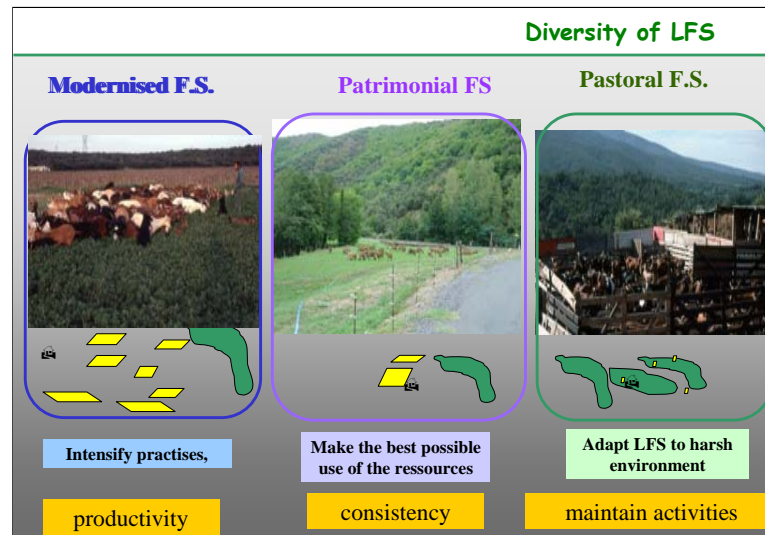
› Second case, in Cevennes National Park, dairy goat is there the main activity for farming a cooperative aspect at developing quality products following a recent PDO cheese agreement.

› This cooperative wonder which style of farming she could support to manage at best evolutions of his commercial strategy and LFS dynamics.

In these two situations, we characterized diversity and dynamics of LFS and their comitment with global axpectations towards LFS. This is based on interviews ammong farmers and local stakeholders.

Continuons avec 2 études de cas dans le Sud Est de la France. Nous avons choisi ces zones car nous voulions raisonner comment faire une évaluation, en prenant en compte une diversité d'enjeux (individuels et collectifs).

*Premier cas, dans le Luberon, le parc naturel régional du Luberon présente un fort enjeu environnemental. L'élevage ovin prédomine. Le parc veut encourager les élevages et les pratiques qui contribuent à la valorisation d'une diversité de milieux, favorable à la biodiversité des espèces. Il s'interroge sur l'analyse prospective de la dynamique du territoire d'un parc naturel en relation avec celle des activités présentes.*



Though these case studies, hold in different contexts and concerned different animal production we can describe diversity through three similar farming styles.

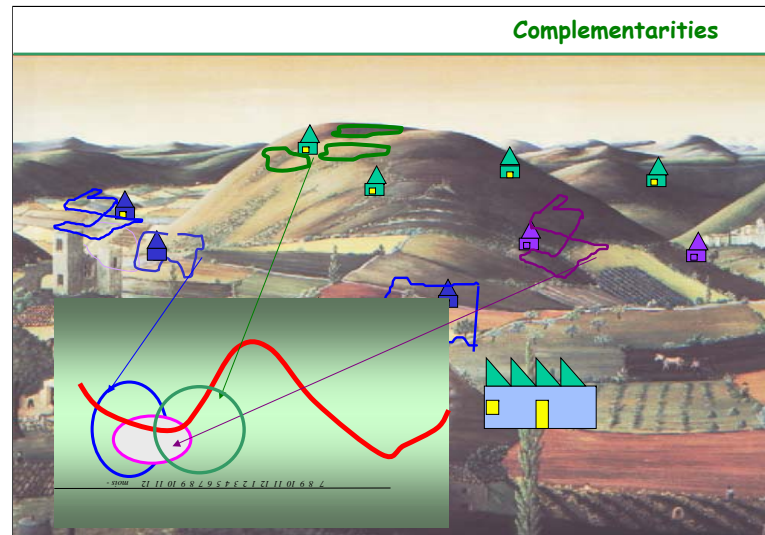
- modernised farmers intensified their system with improved breed and concentrate their activity on more productive areas. Very sensitive to modernity and technicality
- patrimonial farmers who organised their system to get a good valorisation of that they have at disposal within their tenure combining forage from cultivated areas and rangeland.
- Pastoral farmers with only rangelands at their disposal. They also settle last organise their livestock system to deal with their situation from the breed to the flock production process.

These types are related to different ways to consider trade conceive activity regarding specific aims:

- intensify their practices
- make the best possible use of the resource of their tenure
- Adapt LFS to harsh environment

‣ we could develop specified evaluations of each of them around these key words: productivity / consistency / ability to maintain activity.

‣ Put an important issues of evaluation of these systems as to be achieved regarding their complementarities



Here is a symbolic image of a mediteranean landscape. On that one our diverse LFS are located in specified places

- Modernised farms are mainly using cultivated areas in bottom of valleys
- As pastoral farmers are using rangeland on the hills
- And patrimonial on slope use a mixed territory.

If question is to maintain a balanced territory maintaining this diversity is a stake.

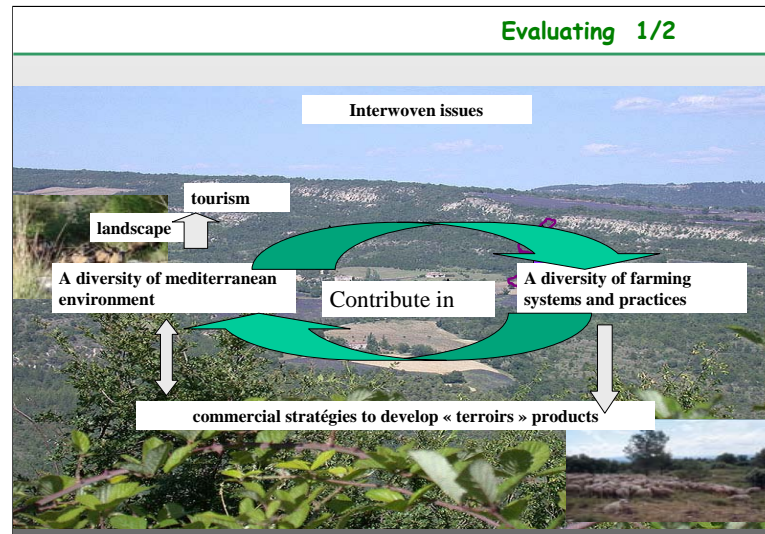
Toward management of production, distinguish these types are also important specially toward seasonal distribution of products.

For instance, her each type has a specific contribution to milk delivery for the cooperative of PDO cheese.

So diversity seems also important toward production and could even be a necessity toward management of deliveries for transformations ‣

Les LFS ne sont pas répartis au m^mes endroits sur le territoires, et n'utilisent pas le mêmes ressources. Les « modernisés » exploitent les zones cultivables en bas de vallées. Les pastoraux utilisent les rang lands sont sur les hauteurs (clic). Les traditionnels, situés plutôt sur les coteaux et utilisent les deux types d'espace.

Au niveau du territoire, une diversité des SF, et des pratiques est nécessaire à la valorisation de la diversité des milieux.



- So in mediterranean area,
- A diversity within territories contribute in settling a diversity of LFS.
- As a response diversity of farming practices create mosaïc of territories
- Interesting landscape, environment and tourim activities.

This diversity of LFS is also important regarding:

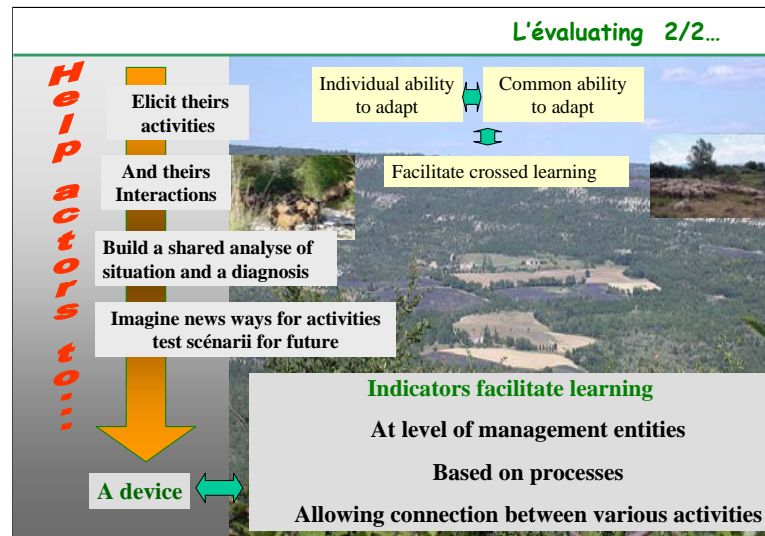
- development of commercial strategies based on local products related to « terroirs », as PDO. These products are so strongly
- related to their territory,
- So LFS are concerned by crossed and interwoven issues.

Some methodological quetsion about evaluation are related to that ‣

**En zone méditerranéenne, on a donc :**

**Une Diversité des milieux** qui a contribué à l'émergence d'une **Diversité de systèmes d'élevage** .





Evaluation could be implemented toward

- Individual ability to adapt
- but question is also to help actors in increasing common ability to adapt ‣ and facilitate cross learning.
- Knowledge we produce should ‣ help actors ‣ to elicit their activities ‣ and interaction among them
- to build a share analyse of situations and a diagnosis
- to imagine new ways for activiteies and to test scénarii for future.

This occurs ‣ devices to accompany stakeholders end this suppose the use of

- Appropriate indicators at level of management entities and based on process to allow connections between varius entities. Validity of these indicators has to be establish within these device.

Nous pourrions donc caractériser une capacité d'adaptation individuelle, comme étant la capacité d'un éleveur à répondre à un enjeux particulier (ex produite à tel moment, utiliser tels milieux).



Mais il nous parait plus important de faire porter l'évaluation sur la Capacité d'adaptation collective : capacité du système d'activité à se maintenir et à évoluer au regard d'enjeux complexes et négociés.. Donc pour

**A methodological stake:**

From device allowing evaluations regarding a predefined question...  
... to device helping at finding question and appropriated response

► Managing diversity in that new context

► Is there some mediterranean specificity implementing that question?

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To conclude, some points concerning diversity and evaluation of LFS

- There is a methodological stake to overcome the changes in issues for farming system. We have to move from device allowing evaluations regarding a predefined question to device helping at finding question **and** appropriated response.
- Managing diversity in that new context is important and we wonder if this question is specific to the situations we work on or more general to LFS.

**Thank you for your attention**



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