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Ecosystem services approach as a new perspective of territorial development: two-sided assessment of Karaburun Peninsula's ecosystem services (Turkey)

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1. INTRODUCTION

By integrating ecosystem services (ES) considerations into policy, it can facilitate (TEEB 2010; 2011):

- Savings on future municipal expenditures
- Stimulation of local economies
- Improvements to quality of life
 - Improved subsistence
- Provision of knowledge to reduce poverty, by informing a fairer division of resources and services which are scarce.



- ES has an important place in developmental economics.
- It allows taking into account different dimensions of sustainability.

Principal evolutions in rural development (RD) since 1970s :

- Decentralisation and regionalisation of administrative politics
- Emergence of bottom-up approaches
 - Social movements in territories (Pecqueur et Campagne, 2014)
 - Emergence of the concept of governance
- Integration of environmental problems in RD policies



- Analyzing rural territorial development in an ES framework is an important challenge.

→ How ES framework can improve sustainability of territorial development?

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Hypothesis

Study of interactions between ES using the concept of the **basket of ES** can help to support sustainable rural territorial development.

Properties of the Basket of ES

- Internalization of externalities: mobilizing local actors towards ES (local governance)
- Institutional construction to raise awareness in order to preserve nature, local knowledge and identity of the territory
- Improving natural quality of the territory through environmentally friendly practices
 - Creation of higher consumer and producer surplus through reputed image of the territory (**Rent of territorial quality-RTQ**)

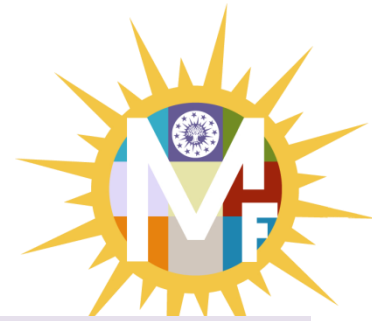
What is the RTQ?

	TERRITORY (Ricardian approach: scarce resources, natural factors, location of land, distance...)	QUALITY (Marshallian approach: intensified preferences, rigidity of demand...)
SUPPLY Complementary goods and services, specification of resources	From Ricardian rent (land, location...) to territorial rent	From differentiation of high quality goods and services to producer's surplus
DEMAND Intense and differentiated demand for local goods and services	Preferences for the territory (private and public goods, intrinsic and constructed resources)	From consumer's surplus to rent of quality

Source: Mollard, 2001, p. 32

Matching of supply and demand side of products with territorial quality (Mollard et al., 2001)

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2. MATERIALS and METHOD

Stage 1: Perception Study

Documentation / expert interview

→ ES table for the territory

Objective: to identify recognition of ES by local actors



Stage 2: Producer and consumer survey

- Identification of the basket of ES
- Preparation of survey based on the indicators which are related to each provisioning service

Objective: to identify producer's and consumer's behavior related to basket of ES and valorization of local products.

Zone of the Study: Karaburun Peninsula



- Rural protected territory
- Hot-spot of biodiversity (birds and mammals)
- Emblematic products: "Hurma" olive, goat cheese, grape, ornamental plant (narcissus), tangerine, artichoke.
- Strong touristic attractiveness



Hurma olive



Goat cheese: Kopanisti



Narcissus





Field Work

Evaluation of ES basket through producer and consumer survey

- **5 baskets of ES:** olive, tangerine, grape, narcissus and goat breeding
 - Survey of 200 producers
- Survey of 100 consumers who know the Peninsula

Demand side evaluation: consumer survey

- Main reason for visiting Karaburun: nature and biodiversity
- The majority of consumers have higher willingness to pay (WTP) for ES basket of olive, grape, narcissus and tangerine.
- 41 % of consumers don't accept to pay more for ES basket of goat breeding for the fact that they don't consume goat products.

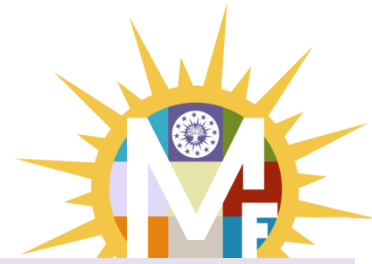
3. RESULTS and DISCUSSIONS

Supply side evaluation: producer survey

- Emigration of young producers
- No incentive to improve their practices due to the production cost and lack of rural policies
- Conflicts between local actors and tenants of land outside the zone

ES affecting consumer's WTP for basket

Olive	Cultural services and soil biodiversity
Tangerine	Erosion regulation, soil fertility, landscape
Goat breeding	Maintenance of biodiversity, regulation of water quality, landscape
Narcissus	Landscape, soil fertility, ecotourism
Grape	Ecotourism, landscape, regulation of water quality



Discussions

Supply side

- Need of development project in order to prevent rural exodus
- Lack of coordination between local institutions for mobilising producers towards local sustainable development
- Necessity of developing extension work in order to improve agricultural practices

Demand side

- To explore correlation between socio-economic factors and consumer's WTP
- To raise awareness in order to encourage consumers to buy local environmentally friendly products

4.CONCLUSION

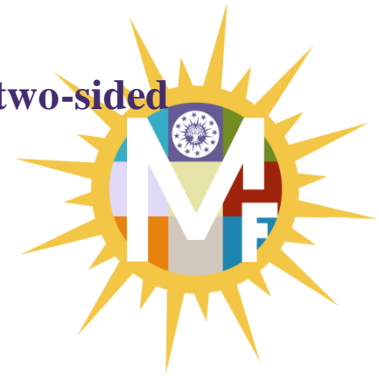
ES basket as a central point of territorial development can :

- allow us to identify crucial gaps in supply and demand side
- highlight potential sectors where supply and demand get close to each other (the case of ecotourism and agriculture for the Peninsula)
- improve valorization of environmentally friendly territorial products mobilizing producers and consumers towards ES basket
- facilitate the process of developing a sustainable development project for the territory

References

- Mollard A. (2001). « Qualité de développement territorial : une grille d'analyse théorique à partir de la rente », *Economie rurale*, No 263, pp. 16-34.
- Mollard, A., Pecqueur, B., Lacroix, A. (2001). "A meeting between quality and territorialism : the rent theory reviewed in the context of territorial development, with reference to French examples", *International Journal of Sustainable Development (IJS)*, 4 (4), 368-391.
- Campagne, P., Pecqueur B. (2014). *Le développement territorial: une réponse émergente à la mondialisation*. Vol. 204. ECLM
- The Economics of Ecosystems and Biodiversity (TEEB). (2011). *à l'intention des décideurs politiques locaux et régionaux*.
 - TEEB. (2012). *Local and Regional Policy and Management*.

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