

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

Heval YILDIRIM<sup>(1),(2)</sup>, Mélanie REQUIER-DESJARDINS<sup>(1)</sup>, Hélène REY-VALETTE<sup>(2)</sup>

<sup>1</sup>: Mediterranean Agronomic Institute of Montpellier (MAIM)

<sup>2</sup>: University of Montpellier, LAMETA



## Contexte and problem statement

Advantages of integrating ecosystem services into policies as tools for development (TEEB 2011; 2012): savings on future municipal expenditure, improving life quality, etc.



Principal evolutions in rural development since 1970s (decentralisation, bottom-up approach, governance, emergence of territories, valorization of local products).

## → How to analyze rural territorial development in an ecosystem service (ES) framework ?

### Materials and Methods

#### Stage 1: Perception Study

- Documentation / expert interview → ES table for the territory
- Identification of principal groups of actors
- Survey and analysis



- Objectif: to identify recognition of ES by local actors (June-September 2014)
- 95 persons surveyed: farmers, inhabitants, tourists, municipality, tradesmen, city council.

#### Stage 2: Producer and consumer survey

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



- Objectif: to identify respondent's behavior related to the basket of ES and valorization of local products.
- 200 survey of producer (olive, tangerine, grape, narcissus producers and goat breeders)
- 100 survey of consumer (Mai-June 2016)

### Zone of the Study: Karaburun Peninsula

- a rural territory in the west of Turkey
- diversity of flora and fauna
- zone of reproduction for some birds and mammals
- local products: "Hurma olive », goat cheese, grape, ornamental plants (narcissus), tangerine, artichoke.



## → Agriculture and tourism are the two main development challenges.

### ES in Karaburun Peninsula

Provisioning Services	Cultural Services	Supporting Services
Agricultural production	Cultural diversity, spiritual values	Soil formation and primary production
Fresh water	Landscape	Nutrient cycling
Medicinal plants	Social relations	
Ornamental plants	Cultural heritage, inspiration	
	Recreation and ecotourism	

### Results and Conclusion

Provisioning Services	Cultural Services	Supporting Services
Good recognition of local agricultural products and ornamental plants	Good recognition of landscape and ecotourism; poor recognition of cultural diversity, spiritual values	Good recognition of supporting services: maintenance of the soil, environmentally friendly practices, protection of endemic species, etc.

#### Side 1: Producer

- 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

#### Side 2: Consumer

- Willingness to pay more for basket of ES of the territory in order to support environmentally friendly production.

#### ES framework as a central point of development policies can :

- improve valorization of territorial products (ES basket)
  - facilitate the process of developing a sustainable development project for the territory mobilizing actors towards ES and environmentally friendly agricultural production

#### Reference

The Economics of Ecosystems and Biodiversity (TEEB), à l'intention des décideurs politiques locaux et régionaux, 2011.  
The Economics of Ecosystems and Biodiversity (TEEB) in Local and Regional Policy and Management, 2012.