



Transactional Environmental Support System

Danube Delta National Institute Tulcea / Romania



Romania / Danube Delta Local case study **Sfântu Gherghe commune** [Saint George commune]

Ion NAVODARU

Brussels, May 25, 2011



Saint George – Location

- South-Eastern of Romania
- Left bank of Danube River
- Black Sea coastline
- Danube Delta Biosphere Reserve



Saint George – administrative unit

Area

54,121 ha

The village

✓ **82 ha**

✓ **358 households**

✓ **971 inhabitants**



Saint George –land use & activities

Main land uses:

- river & coastal fishing
- reed harvesting
- cattle breeding
- tourism

Higher trend in land use: tourism

Recreational activities:

- sunbathing and swimming
- wildlife watching / boat trips
- Angling / sport fishing
- riding horses (a new tourist offer)



Saint George –traditional activities



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Project justification

- Saint George is a fishermen community, based mainly on fishing andromous migratory fish stocks, Pontic shad (*Alosa immaculata*) and sturgeons as well as marine costal fishing for small species as sprat, (*Sprattus sprattus*) and anchovy (*Engraulis encrasicolus*).
- Due to the collapse of fish stocks in April 2006, Romania banned sturgeon catching for ten years and costal fishing with giant trap nets was abandoned, this affecting the community livelihoods.

The goal of the Study case project exercise is to help local people to:

A) identify the exploitable natural resources within their area and to develop local products for visiting tourists or open market;

*B) develop a digital map of Sfântu Gheorghe local biodiversity for Common Sea-buckthorn (*Hippophae rhamnoides*), and Sand Morning Glory (*Convolvus persicus*).*

Socio-ecological aspects

The **Sea-buckthorn** fruit and juice of berries has potential applications in foods, beverages, health and traditional medicine



Hippophae rhamnoides

The **Sand Morning Glory** grows on sand dunes habitats along the Black Sea beach between Sf. Gheorghe and Sulina, and is protected by Romanian law as valuable **endemic species**.



Convolvulus persicus

Socio-economic project

Title:

*The sustainable use of White Sea-buckthorn (*Hippophae rhamnoides*), as a development alternative for the local communities of the Delta, given the decline of fisheries resources.*

Objective

To bring together local community, stakeholders with interests within the region and experts with the aim of creating community-based socio-activity in the Danube delta using the White sea-buckthorn to provide the local community with sustainable alternatives to sturgeon and costal fishing

Purposes

The project intended to draw attention on the possibilities to use these shrubs as a local asset mainly in tourism, who wants to 'taste' the local flavours and traditions.



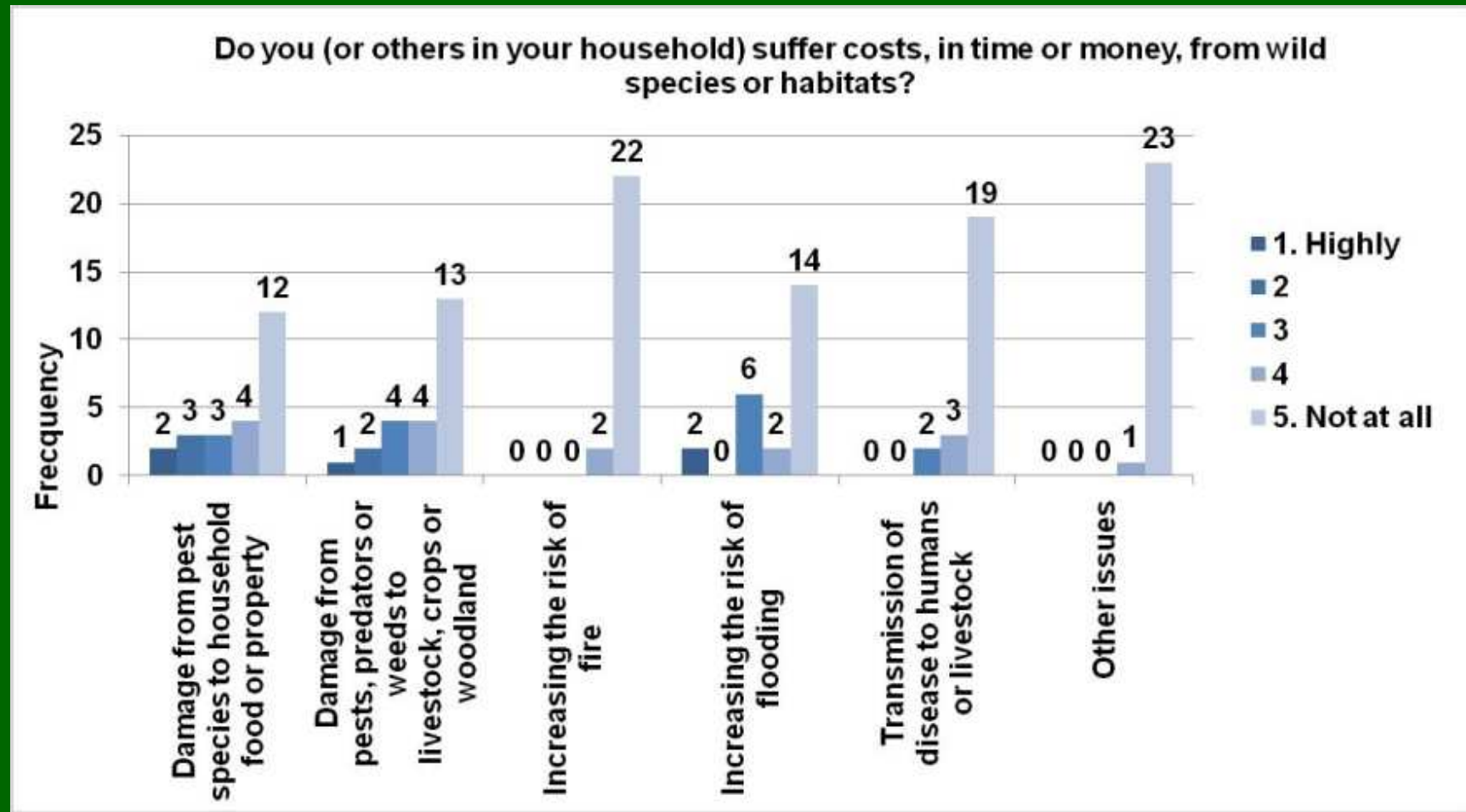
Socio-economic - methods

Desk study on Sea-buckthorn biology and potential exploitation knowledge

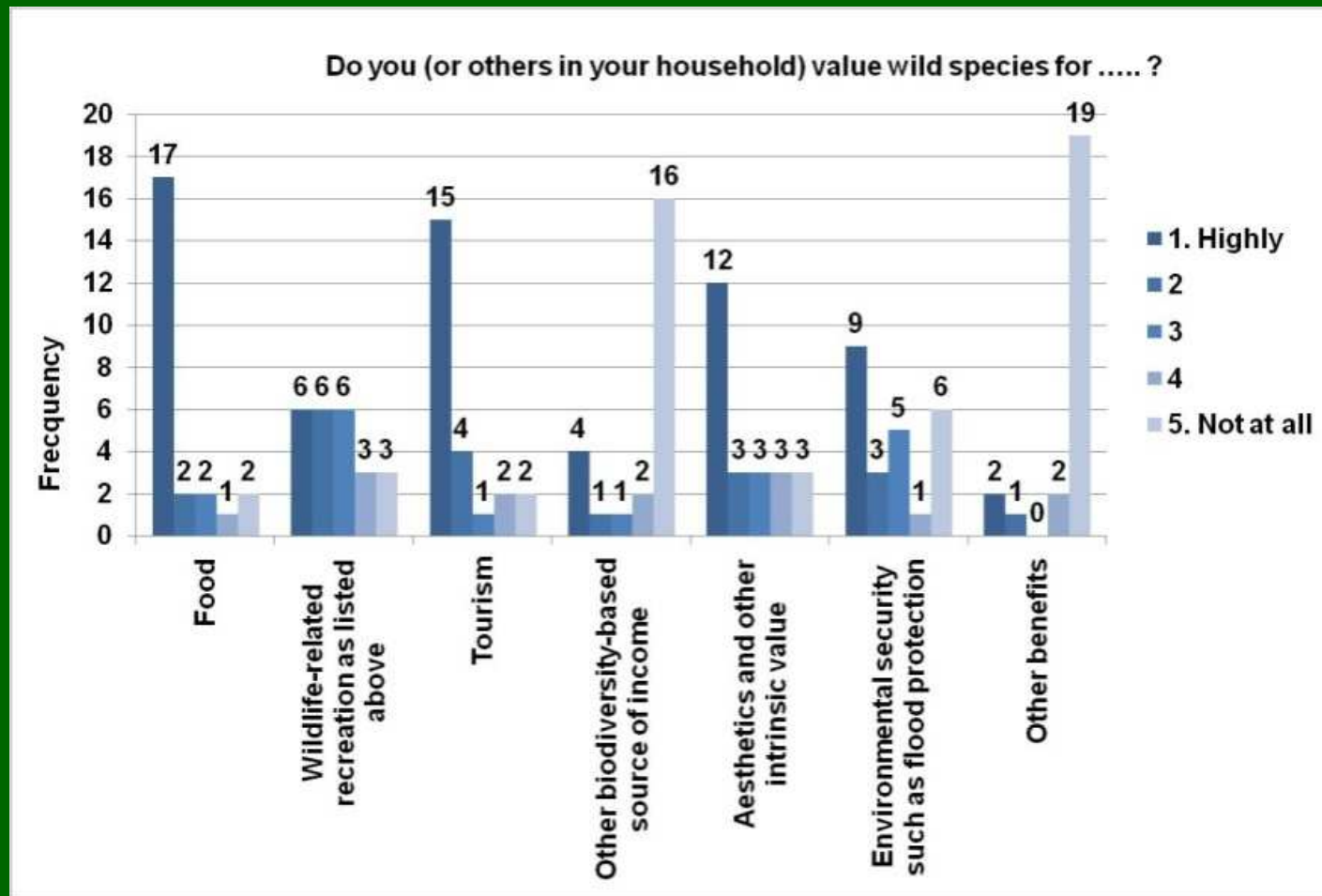
- Structured interviews with local people/householders/helpers/volunteers based on:
 - questionnaire BEFORE project = 27 questions
 - questionnaire AFTER project = 19 questions
 - questionnaire END of project = 20 questions
- Workshop followed by Focus group with stakeholders
 - administration (mayor & counselors)
 - education (teachers)
 - economy (fishery, cattle breeding, tourism, forestry)



Biodiversity cost

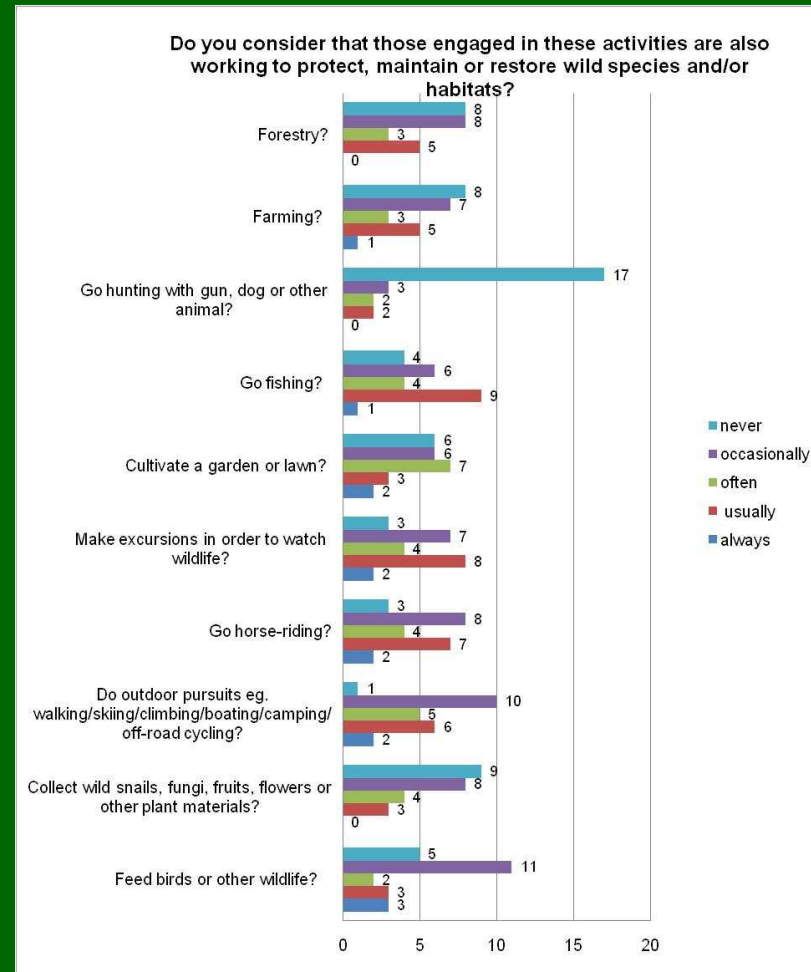


What for do you value the wild species?



Socio-economic - results

Protection, conservation or restoring wild species and habitats by users





Transactional Environmental Support System

Socio-economic – Integrated results

Local knowledge and best practice identified

- Exploitation of the alternative resources including Sea-buckthorn;
- The local tradition to use Sea-buckthorn in community houses;
- Establish a Sea-buckthorn plantation based on past experience;
- Developing a business opportunity which might contribute to community's income.

Future information needs

- Updating knowledge on Sea-buckthorn biology;
- Enlarge distribution map for evaluation of harvest potential;
- Estimation of sustainable use Sea-buckthorn's potential;
- Development of future technology and business related to this plant;
- Information and capacity to develop new projects based on ecosystem services.
- Market study;
- Accessing investment funds.

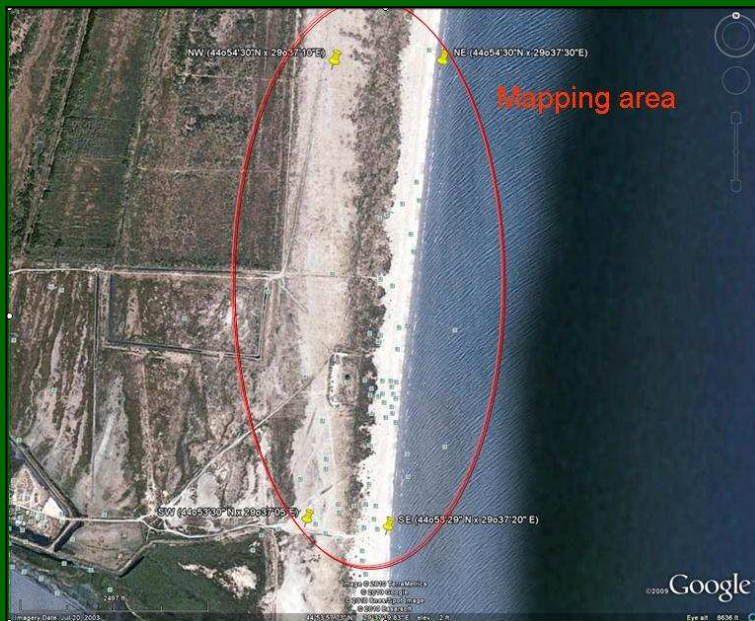
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Mapping project exercises

Objective

Develop a digital map of Sfântu Gheorghe local biodiversity for Common Sea-buckthorn (*Hippophae rhamnoides*), and Sand Morning Glory (*Convolvus persicus*).



Study area: Black Sea coastline and beach on Sfântu Gheorghe locality, between 44° 54' 30" N and 29° 37' 30" E .



Methods: Anatract mapper software & Algiz7 table PC with GPS
Scientist & schoolchildren

Mapping project - results

The Sea-buckthorn = 30.37 ha

Sand Morning Glory = 5.46 ha



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Mapping project achievements

Anatrack Mapper software work properly with tablet PC with incorporate GPS for real time positioning in the field;

Children enjoyed for mapping their local biodiversity and habitats



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Consolidated conclusion

- The case study project exercises was designed as a practical approach to a persistent problem in the community for finding the alternative resources that can be sustainably exploited by the people living in the Danube Delta Biosphere Reserve
- The Sea-buckthorn fruit and juice of berries has potential applications in foods, beverages, health and traditional medicine
- Biodiversity mapping exercises contribute to acquire valuable information at local level for decision making
- Major difficulties is the community's reluctance to add, to the range of the traditional activities, the harvesting or/and cultivation of the Sea-buckthorn for commercial purposes
- The major challenge will be in convincing the community & stakeholders of the need to tackle these types of projects and the opportunities for sustainable use of local ecosystem services

Wind of change

The community underwent significant changes turning from a fish community into a fetching tourist destination based on cultural heritage, ecosystem services and biodiversity value



Romania / Danube Delta Saint George -Local case study



Thank you for your attention