WP3.10 COORDINATION OF SOCIO-CULTURAL VALUATION METHODS

SECTION 1

1) ECOSYSTEM SERVICES (ES), THREATS AND OPPORTUNITIES RELEVANT TO EACH EXEMPLAR

- Firth of Forth, Scotland (Meriwether): Regulating ES of coastal defense and flood mitigation. Supporting ES: Biodiversity. Threats: climate change (sea level rise, surges and flooding). Opportunities: new wetland habitat.

- Pentland Hills, Scotland (Katja). Provisioning ES: food, wool, drinking water; Regulating ES: Habitat for plants and animal nursery and reproduction, Carbon sequestration; Cultural ES: experiential use, physical use, scientific and educational use, cultural heritage, aesthetic/inspiration. Threats: land use change, habitat loss, recreation loss, cultural heritage loss. Opportunities: climate regulation (renewable energy).

- East-Lothian, Scotland (VU-IVM (Samantha). Cultural ES: biodiversity, tourism, recreation, aesthetic qualities, cultural heritage. Regulating ES: coastal defense, water purification; Provisioning ES; food, material. Threats: urban fringe pressures, tourism development, residential development, invasive species. Opportunities; habitat restoration, development of ecotourism

- Danube VU-IVM (Samantha) – WWF Bulgaria (Maya). Cultural ES: existence values, recreation, education & knowledge, tourism, aesthetic values Regulating ES: flood management, soil erosion control, groundwater recharge, climate regulation, water quality control Provisioning ES: food, material, biomass for energy, medicines. Threats: Habitat loss. Opportunities: habitat restoration, flood mitigation, fisheries

- Alps (Sandra & colleagues). Provisioning ES: forestry, grazing, crop production, water provisioning. Cultural ES: landscape, walking, wildlife. Regulating: erosion, climate regulation, protection from gravitational risks, flood protection. Threats: Urban development, Sustainability of traditional farming, climate change. Opportunities: benefits of land planning and governance scenarios that foster multiple ES and biodiversity conservation

- Montado (Margarida and colleagues). Multi-use provisioning and cultural ES (cultural landscape/biodiversity). Regulating ES: vegetation, micro-climate. Threats: Sustainability of traditional farming, overgrazing, climate change, fire (some risk). Opportunities: demonstrating link between traditional agri and ES, premium produce.

- Fingal, Dublin (Deirdre): Primarily cultural ES: coastal recreation, sense of place, wildlife viewing; supporting: habitat, green infrastructure. Regulating ES: coastal water purification. Treats: Urban fringe pressures, development, recreation, waste water treatment. Opportunities: Greater understanding of ES, public participation in planning.

- Balearic Islands, Provisioning ES: fisheries; Regulation & Maintenance: sequestration & absorption of wastes, sediment retention, attenuation of wave energy, erosion protection, carbon storage & sequestration, maintenance of soil, nursery role. Cultural ES: seascape character, cultural seascape, naturalness, charismatic habitat, recreation, information & knowledge.

Commonalities:

- Fingal, East Lothian & Pentlands (slight similarities): recreation, perceived/actual public asset. Urban fringe pressures

- Forth & Danube (slight): flooding. Opportunities for habitat creation.

- Alps & Montado (greater): Traditional land use, cultural landscape, agri-envir,

- Balearics & Danube: Regulating services but different kinds.

2) COMPOSITION OF STAKEHOLDERS (GOVT DEPTS., PUBLIC BODIES, NGOS, CITIZENS, ETC)

- Firth of Forth: wildlife and heritage NGOs, envir agency, local authorities.

- Pentlands: Regional Park Management, local councils, land owners, interest groups, public sector agencies, non-profit organizations.

- East-Lothian: Local communities, local landowners, business interests, visitors/tourists, NGOs and govt institutions.

- Danube: Local landowners, local communities, fishing interests, govt and international conservation agencies.

- Alps: Local and regional authorities, forestry interests, landowners. Regional and natural parks, nature NGOs.

- Montado: Local landowners, business interests and govt institutions.

- Fingal: Government stakeholders, local authority, business community orgs, tourism, primary producers and citizens.

- Balearic Islands: government, local authority, port authority, business community (particularly related to tourism), fishing interests, recreation interests, NGOs, international conservation agencies, citizens

3) TYPES OF BENEFICIARIES AND CONFLICTS

- Firth of Forth: wildlife NGOs and coastal communities (as both potential winners and losers). Pragmatic decision making. Private costs versus public good (high).
- Pentlands: Potential for greater harmonization of interests. Private costs versus public good (some).
- East-Lothian: NGOS, business interests (tourism), local communities, land-owners,tourists/visitors. Conflict between protection of coastal environment and country side and development of tourism infrastructures. Conflict between maintaining country side (cultural heritage) and implementing energy policies (more renewable energy, wind mills).
- Danube: Beneficiaries (wildlife international and national NGOs), tourism. Winners and losers in the community between farmers and fisherman plus tourism interests. Differences in socio-economic status. Potential for serious conflicts, but also harmonization of interests. Perceived private costs versus public or national/international good.
- Alps: Farmers (or foresters) versus tourism interests. Synergies of agriculture or forestry and biodiversity conservation, but at a cost (loss of income) to these primary producers (partly covered by subsidies), and with some potential economic benefits (e.g. new products). Potential for harmonization of interests?
- Montado: Conflicts between grazing by cattle and cork production, but often same land owners. Losers: conservation and wider society who value cultural landscape. Differences in socio-economic status. Private costs versus public good (moderate).
- Fingal: Conflicts between conservation interests, the local authority and local community/recreationists, but potential for harmonization. Most differences attitudes towards use of public goods.
- Balearic Islands. Benefits at different scales, local/regional e.g. tourists, local recreational users; global: e.g. contribution to climate regulation. Conflicts: conservation vs. commercial fisheries (there might be more, this is one of the themes that we would like to explore through the interviews and workshops).

4) ARE EXTERNALITY IMPACTS IMPOSED BY ONE STAKEHOLDER ON ANOTHER

- Firth of Forth. Losses of productive land, community fears over increased flood risk, distrust of authorities.
- Possible conflicts in Pentland Hills between recreation and farming interests (dogs and sheep, perceived disrespect, inequitable share of benefits, fire), farming interests and habitat.
- East-Lothian; conflicts between nature conservation and tourism/recreation interests and farming; potential disagreement between local residents and day-trip visitors/tourists; potential conflict between 'new' (recently moved from city) and 'old'(long-time) residents.
- Real or perceived conflicts in Danube between nature conservation and traditional land use. Loss of productive land. Constraints on farmer decision making.
- Montado: Intensification of agriculture (cattle) versus cork (tho often same individuals), negative impacts on conservation and viability of traditional land use..
- Alps. Perceived conflicts in the French Alps between forest production and other services expected from users and society: recreation, biodiversity conservation, water quality, carbon sequestration – without current sufficient financial compensation
- Simmering conflicts between nature conservation and recreation interests in Fingal related to disturbance, damage to habitat and curtailment of rights and access.
- Balearic Islands: fishing vs. conservation, recreational boating anchorage vs. conservation. This is something to explore further.

5) SECURITY OF LIVELIHOOD OR INCOME

- Futurescapes in Firth of Forth will have a significant direct impact on security in relation to flood risk and landownership.
- East Lothian: restriction to local income (tourism) because of conservation areas; potential threat to country side by wind-mill development, potential threat to agricultural and conservation areas due to residential development
- Danube. Risks to livelihood perceived from conservation.

- Alps: Constraints of agricultural practice including possibly to income.
- Montado, threats to cork interests from over-grazing and technological change (plastic stoppers, machinery contributing to soil erosion and root damage).
- Balearic Islands. Degradation of seagrass meadows could have an impact on commercial and recreational fisheries as seagrasses act as nursery grounds for certain species; increased coastal erosion; it could have an impact on tourism as seagrasses contribute water quality maintenance.

6) STRONG PROPERTY RIGHTS HELD BY ONE OR MORE STAKEHOLDER GROUP

- East Lothian: local landowners, recreation/tourism infrastructures
- Danube: Local farmer interests and land.
- Fingal: Coastal golf courses.

7) COLLECTIVE OR COMMUNAL RESOURCE ELEMENT

- Firth of Forth: Need to stimulate community interest, involvement and action.
- Pentlands are a regional park and would therefore be seen as a public asset.
- East-Lothian: both local and public assets (local farmlands, businesses, but also public territories, nature parks etc.).
- Alps: two regional parks + state-owned forests and communal mountain summer pastures
- Fingal: Coastal environment is seen as a local or public asset.
- Montado. The landscape is of value to national and community identify.
- Balearic Islands: communal fishing resource

8) HEALTH

- Fingal: Opportunities to extend physical and mental interaction with natural environment.
- Pentlands: Opportunities to extend physical and mental interaction with natural environment.

- East-Lothian: recreation, management plans for air quality control & water quality control (private water supply)
- Montado. Opportunities to extend physical and mental interaction with the natural environment.

9) ROLE OF INFORMATION

- Firth of Forth: Need to educate people about necessity of land abandonment or managed retreat in face of distrust of relevant authorities and attachment to land and property.
- UP: Knowledge gaps. Diffs in awareness of biodiversity and ES benefits.
- East-Lothian effect of info on SCV and in what way info can improve valuation.
- Danube: Knowledge gaps and info transfer. Assess links between perception of ES and values for ES. Need to harmonise competing interests.
- Alps: stakeholders demand for knowledge on ES, their ecological underpinnings, and ES trade-offs / synergies; objectives: to support management decisions, and to educate the public.
- Fingal: Underlying knowledge of ES. How to provide an awareness of ecosystem benefits and requirements,
- Montado: Knowledge gaps and awareness of EES, esp CES.
- Balearics: About regulating services

Commonalities: Fundamental awareness of ES in Danube, Montado and Fingal, Pentland Hills, possibly also Firth of Forth.

10) TRADE-OFFS

Firth of Forth: Hard versus soft engineering. Conservation versus hard engineering and protection of property.

Pentlands: Traditional livestock farming vs. native forest/carbon sequestration; traditional livestock farming vs. recreation (too many, less access), wind farm vs. inspiration/aesthetics

East-Lothian: conservation versus tourism vs farming, local needs versus regional needs, individual benefits vs community benefits, renewable energy vs cultural heritage

Danube: Conservation, tourism and fishing versus traditional land management.

Alps: Sharing of resources such as water between socio-economic sectors (e.g. tourism and agriculture). Land use change (urbanization, agricultural abandonment), Climate change adaptation.

Montado: Changes in land use management and for adaptation.

Fingal: conservation protection and greater public access.

Balearics: Between boating, agriculture and fisheries, common good. etc.

11) SPATIAL ELEMENT

- VU-IVM is interested in the effect of spatial distribution on SCV. ast-Lothian: the effect of preferences for spatial composition and configuration on SCV
- UP is also interested in the effect of spatial distribution.
- Danube: Spatial dislocation of benefits (on-site and downstream) and costs, including flood mitigation.
- Alps: Spatial distribution on SCV; green and blue infrastructure
- Fingal. Could be a factor with regard to green infrastructure.
- Montado: Spatial heterogeneity of competing land uses.
- Belearics: Where to protect area and where to permit recreation.

12) VARIATION IN SOCIO-CULTURAL VALUES (SCV)

- UP is interested in how SCV vary (heterogeneity)
- Danube. Heterogeneity likely to be an issue here.
- Alps: interested in differences between locals and tourists, and between users and actors (tourism sector)
- Fingal: Heterogeneity in understanding and effect of Nimby-ism.

13) ROBUSTNESS OF METHODOLOGIES

- UP is interested in the robustness of results from various methodologies.
- VU-IVM is interested in improving robustness of SCV methodologies

14) USE OF SOCIO-CULTURAL VALUATION

- Firth of Forth: Awareness of ES benefits and limits to flood mitigation and coastal defense.
- UP is interested to know how info on SCV can be used at a practical local level.
- East-Lothian: inform local authorities of user needs, raise awareness of ES
- Danube: As a potential means to achieve consensus over wetland ES management..
- Alps: Stakeholder perceptions. Conciliation of ecosystem service demands from urban and rural citizens and managers; inform decision makers and citizens on the benefits of the preservation of an exceptional biodiversity and landscape capital.
- Montado: Local vs. wider ecosystem values. Stakeholder perceptions. Inform and harmonise competing land uses.
- Fingal: To inform local authority decision making and SEA. To raise awareness of ES, ecosystem functions, benefits and vulnerability at different stakeholder levels.
- Balearic Islands: To inform local authority decision making. To raise awareness of ES, ecosystem functions and benefits.

15) SCV METHODS

- Firth of Forth. Scenarios.
- UP. Ranking, non-monetary model, deliberative methods, visualisation.
- VU-IVM: structured interviews combined with non-monetary choice models, scenarios, deliberative methods and/or visualization
- Alps: ranking, deliberative methods, scenarios, visualization.

- Montado. Scenarios. TESSA. Multi-dimensional, i.e. social and economic. Spatial methodologies. Fundamental values. Tade-offs.
- Fingal. Deliberative methods, TESSA, factor analysis, conjoint analysis.
- Balearic Islands: Semi-structure interviews, ranking exercises, Q-methodology, workshops

SECTION 2

STAKEHOLDER ANALYSIS / STAKEHOLDER CONSULTATION

Please describe how you propose to identify, contact and engage stakeholders or and the stakeholder analysis (if applicable) that that you are considering. Please indicate how you expect Prospex to be involved at this stage.

Balearics:
We are considering involving Prospex in the stakeholder identification exercise although we think we've got a fairly complete view on who the stakeholders are. Semi-structured, one-to-one interviews will be carried out with representatives for each of the stakeholders groups. For some of the groups there's already an established relationship between the researchers involved in this exemplar and the groups' representatives.

UP
Initial stakeholder workshop held in 12/2013, participants: Regional Park Management, West Lothian Council, Edinburgh Council, aim: to discuss aim of the study, ecosystem services provided, land use conflicts, etc.

02/2014 Presentation of study design at Consultative Forum Meeting of stakeholders in Regional Park (management, councils, landowners, interest groups)

Expected: 06/2014 Visitor survey, Stakeholder interviews – Stakeholders have been identified in consultations with Regional Park Management and involved Councils – and in Park documents (minutes of bi-annual meetings, etc.)

Summer 2015: focus groups with stakeholders – partial overlap with respondents of the interviews

Maybe Prospex could be involved in the moderation of the focus group –

VU-IVM
- identify important stakeholdersby looking at (i) ownership of the landscapes, (ii) management and governance of the landscapes (iii) use of the landscapes.
- contact stakeholders to ask information about local context, provide information about study aim, results etc.
- engage stakeholders by asking for information needs
- Thus far no plans /needs identified to involve Prospex

French Alps

Participants to the continuous stakeholder process have been selected based on researchers' knowledge of the territory, project partners (ESNET project) previous contacts and suggestions by key informants, for individuals within main structures involved in territorial management for five socio-economical sectors : Forestry; Water management; Agriculture; Tourism and recreation; Urban development and land use planning.
Within each of these sectors, main stakeholders have been identified from : Governance structures; Local authorities; NGOs; Regional natural parks.

The stakeholder process is organized as a series of five workshops, to integrate their participation throughout the project :

1st) workshop (Completed : 16/09/2013) : Identification of territorial issues, and priority ecosystem services.
Individual questionnaires on ES knowledge and ranking.
Initiation of 3 thematic working groups on territorial issues and associated ES:
Working group (16/09/2013 - completed) : water resources
Working group (12/2013 - completed) : land allocation
Working group (01/2014 - completed) : rural mountain areas

2nd) workshop (Completed: 27/03/2014) : Building scenarios.
The broad lines of the 3-4 scenarios were defined by researchers prior to the workshop, and the objective of the workshop was to translate / downscale them to specific scenarios for model projections and the continued interaction process.
Workshop organized and run with Prospex.

3rd) workshop (10/2014) : Modeling of ecosystem services, identification of relevant indicators to be informed for scenarios.

4th) workshop (06/2015) : Evaluation of ES projections under the 4 scenarios using visualisation. Quantification for MCDA.

5th) workshop (01/2016) : From evaluation to decision making**.** Dialogue on development pathways and mitigation options. To be discussed : with Prospex participation.

SOCIO-CULTURAL / NON-ECONOMIC VALUATION

Please describe the types of Socio-cultural Valuation /Non-economic methods that you are considering. Please explain why, the share of methods if particular methods will be more important, to which specific issues they will be addressed.

Majorca
We're envisaging to carry out semi-structured interviews with the aim of ascertaining stakeholders perceptions on the ES derived from seagrasses, their importance, benefits, direct (threats, pressures) and indirect drivers and the influence of seagrasses on human wellbeing. Ranking exercises will be included as part of the interviews.

During the interviews, stakeholders' statements will also be collected with the objective of devising a Q-sorting exercise; statements from peer-reviewed literature will also be used. The Q-sorting exercise will be carried out on-line (whenever possible) with the same stakeholders representatives interviewed during the semi-structured interviews.

We're planning on following the interviews with one (maybe two workshops) with the same stakeholders representatives. The topic of the workshops could be related to potential management scenarios for seagrasses.

UP
Non-monetary valuation
: Rating of ecosystem services from personal as well as a societal perspective on a Likert scale
: Ranking ecosystem services when accounting for trade-offs

- ➔ We will have respondents choose a scenario that best describes their preferences in ES provision, taking into account trade-offs between services (not all services will be provided at the same time – as opposed to the rating exercise)

VU-IVM
To be able to quantitatively analyse the data, we will use structured interviews in all case study areas. However, to design the questionnaire, information will be gathered by in-depth interviews/focus groups with local stakeholders.
The structured questionnaire will have a different format in each case study, depending on the research interest (mapping exercise, non-monetary choice model, ranking exercise, participatory exercise)

French Alps

1. Perception of ecosystem services and of bundles / trade-offs

Ranking: stakeholders were given individual questionnaires listing ecosystem services per category (provisioning, regulation, cultural) and asked to identify the 3 most important ES per category in their context of their management / decision activity. They also listed and ranked the 5 most important issues for their socio-economic sector. This method was chosen in order to identify the most important ES, as well as to familiarize stakeholders with the approach of the project.

Deliberative methods: stakeholders were presented with a list of inter-sectoral land management issues for the territory and asked to discuss their links with ES in order to identify bundles / trade-offs of ES associated with each issue. This method was chosen in order to foster interactions among actors from different socio-economic sectors.

2. Landscape cultural values for tourism and recreation

Local users, tourists and actors of the tourism and recreation sectors will be surveyed using questionnaires that focus on their uses and the motivations for these uses in terms of: 1) expected benefits (sensu MA); 2) landscape types; 3) landscape biodiversity components, presence of water etc. 4) accessibility, remoteness, etc., 5) awareness of different values (cultural and heritage, spiritual, aesthetic, educational).

This method was chosen in order to inform a GIS model of cultural and recreation / tourism values of the study landscape. Questionnaires make it possible to study large samples of respondents, thereby permitting statistical analyses across the population.

3. Scenarios and trade-off analysis

Scenarios will be used in order to analyse alternative possible futures of the territory in terms of land use and associated changes in biodiversity and ecosystem services. Scenarios are a 'natural' tool given the current political focus on planning towards 2030 and beyond. Scenario broad storylines were proposed by researchers prior to the workshop based on 4 scenarios defined by the regional government for 2040. A workshop was then used to translate / downscale these storylines to specific scenarios by addressing: the demand for ES foreseen under each scenario; expected governance elements; trends and spatial patterns / location of change for different land use types, specific management (e.g. in agriculture), infrastructure and activities (i.e. deliberative methods). Outcomes from the workshop will be interpreted by scientists to quantitative changes in order to provide inputs to modelling. Results from land use and ES modelling will be presented using multiple Visualization techniques (ETH) in order to quantify criteria for MCDA (deliberative – workshop).

COMBINING SOCIO-CULTURAL VALUATION AND ECONOMIC METHODS

Please describe if you will be using SCV in combination with economics methods and for which specific socio-cultural and economic methods this will apply.

Balearics
A Cost-Benefit assessment will be carried out as part of the Balearic Islands Exemplar, however, no direct combination of SCV and economic methods, such as CE with a monetary element, will be used in this Exemplar.

UP
Not planned at this stage, but our study would perfectly prepare the ground for a choice experiment. Please economists feel free to get engaged!

VU-IVM
Thus far there is no particular interest to use economic methods, although socio-cultural valuation methods used may draw from such methods (e.g. explicitly including trade-offs)

French Alps
Not at this stage, although we would still hope to attract one of the OPERAs partners to conduct economic valuation. This would be of particular interest given that the end point of the project will involve politicians.

AREAS WHERE YOU WOULD LIKE US TO PROVIDE GUIDANCE OR INFO

Please indicate areas for stakeholder analysis or socio-cultural valuation .

Balearics
We would like to receive feedback on the design of the semi-structured interviews, the Q-sorting exercise and the organization of stakeholder workshops.

UP
We will provide guidance to include socio-cultural valuation into to an additional TESSA module, to be developed in the coming months.
We would also be able to provide guidance to social valuation in other exemplars, for instance, the Montado Exemplar, with its highly valued productive cultural landscape (not discussed so far

TOOLS/INSTRUMENTS

Please list the tools or instruments that you are considering and how you plan to use these. Our understanding is as follows: UE (Scenarios. Crowd sourcing. Mapping, TESSA), Danube: (TESSA, Dec-making support tool inc no net loss (NNL), Dec support (mDSS & TIAMASG), Alps (trade-offs, scenarios (Ecosystem Services Network Future ESNET) and alternatives). LU (pathways, mapping info, MCDA – ALUAM. 3D visualization). Fingal: (TESSA, mapping).

Balearics
For the SCV: semi-structured interviews, Q-methodology, workshops.
Economic valuation: Cost benefit assessment and maybe benefit transfer.
Mapping

UP
Interviews, online surveys, focus groups, scenarios, mapping

VU-IVM
Mapping, visualization, trade-offs, scenarios

French Alps
Scenarios
MCDA
Visualisation
NNL