

TRANPAREA

Value of transboundary nature protected areas, located at the EU outer borders

TØI's vision of the study – or some initial thoughts

Knut Veisten, Askill Harkjerr Halse, Iratxe Landa Mata Kick-off, Białowieża, Poland, 15-17 Sep 2013 (& post hoc, Oslo, 30 Sep)

נסי Outline:

- Sampling issues
- The scenario
- Test structure
- Variables / modelling
- Choice / valuation formats

Sampling issues

- We agree that there are potential problems related to the sampling, although we do not propose to change the planned internet-based sampling.
 - Internet panels might not provide an unbiased sampling frame for the adult populations in, respectively PL, SE and NO.
 - We do not doubt that the internet panels have similar distributions of age and gender as the adult population, but that might not assure representativeness; we would at least add educational level and (household) income, such that we can show the impact of these characteristics as well as providing weighted estimates.
 - The literature indicates some impact of survey mode, although it is ambiguous and not necessarily affecting WTP estimates (Olsen 2009, Lindhjem & Navrud 2011, Morrison et al. 2013)
 - Richard Carson argued many years ago (Carson 1991) that we do not need to exert ourselves in attempts of reaching those who "do not care", but if the pro et contra in the population is not reflected in our sample, we would like to have some possibility to make adjustments by use of some variable (characteristic) in our data. Carson mentioned that "Richard Bishop has suggested putting in zeros for nonresponses to mail surveys as a conservative assumption" (p 156-157).

Sampling issues (cont.)

- There is also a specific self-selection problem related to the specific recruiting to a survey. Marketing-oriented opinion-research institutes might want to hoist a green-shaded flag, searching for some imaginary "environmentalist target group", but we might not want to reach only the already-redeemed nature lovers.
- We have indicated some doubt about the internet panels in Norway, based on our own experience, and this comprises both the sample representativeness issue and the handling of surveys as such; we believe that we must have some control of how they handle relatively advanced survey-design for the tests, particularly split-sample testing (as well as their handling of general "skip-logic" that prevents respondents from receiving unnecessary questions – the interactive and individually-adapted design is really the grand force of the internet survey (and CAPI)).

The scenario

- In the invitation to the interdisciplinary workshop for the Fulufjell case, we will present the draft scenario of "extending the national park" or "extending the strictly preserved area within the park"
- We will ask the workshop invitees to give their immediate reaction to this scenario for Fulufjellet (NO/SE), but will await conclusions till after the workshop (primo Dec.)
- Under the workshop we will try to clarify:
 - the extent to which the draft scenario is realistic/plausible
 - alternative adjustments/scenarios that are more realistic/plausible, e.g.:
 - habitat corridors / nature protection outside current park areas?
 - "packages" of protection/management improvements?

The scenario (cont.)

National parks and nature reserves to the north of Fulufjället/Fulufjellet

- Draft scenario alternatives:
 - extend the "undisturbed zone" (the strictly protected area)
 - extend the national parks
 - create corridors to neighbouring parks/reserves



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The scenario (cont.)

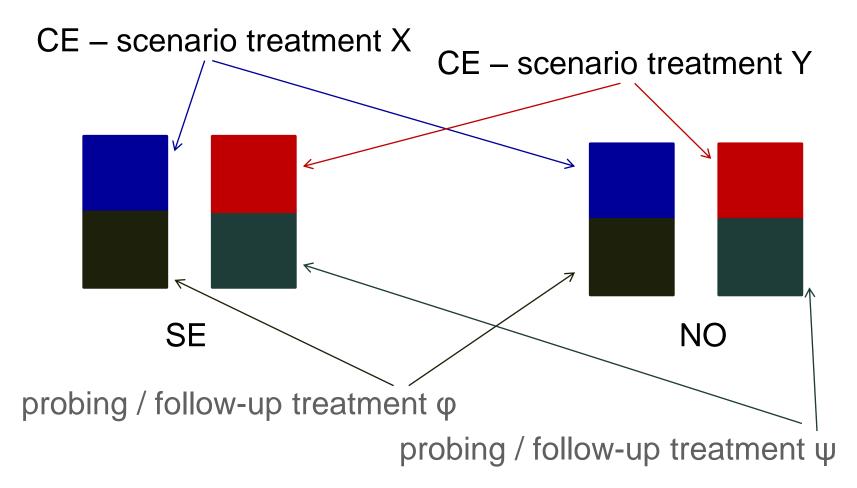
- We believe we share the view that the realism/plausibility of the scenario is of great importance
 - if it isn't, we can expect a higher share of unconsidered responses (Carson 1991)
- A realistic/plausible scenario of increased provision of nature (habitat) preservation might still be controversial – and it will be, in both case areas
- Although non-use values represent the main focus of our study, should we clarify some elements of the provision, e.g.:
 - local/regional measures/facilities (an interpretive predator centre has been proposed in relation to Fulufjellet, in NO)?
 - compensation / exchange of real estate for private forest owners?

Test structure

- We agree to the proposal that there should be a splitsample (external) test in all four countries
- Then we would have:
 - within-sample tests, e.g., the already-included choice experiment (applied in the Pilot) yielding WTP estimates for domestic area vs. foreign area; and additional tests might be possible
 - between-sample tests different treatments, e.g. different scenarios (whether info about co-financing, or an international/European fund for transboundary national parks, or something else); and additional tests might be possible (see figure next page)
 - between-country tests comparisons of WTP and WTP modelling across countries



Test structure – cont.



Variables / modelling

- We somewhat agree to a basic foundation of "keeping it simple ... and short"
- However:
 - Simple for whom? We suppose that it is not meant that, e.g., a simplistic theoretical model necessarily imply that the response task is easier for the respondents.
 - We understand the potential danger of loosing respondents due to a too lengthy (and/or mal-designed) survey, so we also understand the difficult trade-off between including interesting questions and keeping things simple and short.
 - We mentioned some possible types of probing / follow-up questions (that we have used in our own surveys) that could potentially serve in the analysis of choices (see next page):

Variables / modelling (cont.)

Example – environmental behaviour (rotated question order):

How often do you do the following?

	Never	Seldom	Often	Always	Not relevant
In hotels, have the towels changed daily	C	0	0	C	0
Drive in such a way as to keep fuel consumption as low as possible	C	0	0	0	C
Boycott companies that are not environmentally friendly	C	0	C	0	C
Use public transportation or riding a bike to work/school	C	0	0	0	0
Put dead batteries in the normal garbage	C	0	0	C	0
Buy produce with eco-labels even if they cost more	0	0	0	0	0
In the winter, keep the heat on fairly high, avoiding to wear a sweater	C	0	C	0	0
Purchase carbon offsets / climate quotas when going by plane	C	C	0	0	0
Contribute financially to environmental organizations	C	0	0	C	0
Turn off the light when leaving a room	0	0	0	0	0
Reuse shopping bags	C	0	0	C	0
Combine glass and metal with other garbage	0	C	C	0	0

Variables / modelling (cont.)

Example related to probability of future visit/use of an area:

What is the probability that you...
1
2
3
4
5

Very unlikely
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"in 2015" and/or "within the next 10 years"

 These are just examples. We could propose other questions, eventually.

Choice / valuation formats

- Choice experiments (CE) preferable
 - yet, e.g. "hypothetical overstatement" and "insensitivity to scope" also relate to CE, not only to contingent valuation (CV)
 - a test of criterion validity (or predictive validity) is not viable (and actual collection to a fund is not a demand-revealing mechanism)
 - we might find other ways of reducing "hypothetical overstatement" and "insensitivity to scope" (by use of proper scenario wording and/or probes and/or weighting)
- Open-ended CV and "certainty approach" for discrete choice
 - Both can yield lower WTP estimates for environmental measures, but in both cases resulting from a mix of different motivations/behaviours (certainty/consciousness of some, carelessness or assertiveness/cocksureness of others)

Choice / valuation formats

- Explaining choices / valuations is interesting to us
 - SEV, in the draft specification of the utility model, could possibly be a vector of socioeconomic and psychographic variables, the latter modelled as latent variables
 - a model of hypothetical behaviour can be different from a model of actual behaviour, but a model of "validated hypothetical behaviour" might come closer to that of actual behaviour

References

- Carson, R. 1991. "Constructed markets." Ch. V, pp. 121-162 in Braden, J.B. & Kolstad, C.D. (eds.). *Measuring the demand for environmental quality*. Elsevier Science Publishers B.V., Amsterdam.
- Lindhjem, H. & Navrud, S. 2011. "Internet CV surveys a cheap, fast way to get large samples of biased values?" *Ecological Economics*, 70: 1628-1637.
- Morrison, M., MacDonald, D.H., Boyle, K., Rose, J. & Duncan, R. 2013. "Investigating differences between internet and mail implementation of a statedpreference study while controlling for differences in sample frames and selfselection effects." Paper presented at the International Choice Modelling Conference 2013, Sydney.
- Olsen, S. (2009). "Choosing between internet and mail survey modes for choice experiment surveys considering non-market goods. *Environmental and Resource Economics*, 44: 591-610.