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Key words:

- Stated preference valuation
- Travel cost methods
- Outdoor recreation
- Payment for ecosystem services
- Forest and resource economics
- Climate change related to economics, nature, forests

Choice experiment design: It is well-known that when doing a choice experiment, the graphical design matters for valuation. But how much? In a study we have split the sample into smaller groups who got different versions (the order of the attributes and whether it was presented with an icon or not). This raises two questions: does it cause a significant difference in WTP? Are the findings similar to what is found in the literature? Methods: choice modelling on existing data

Preference heterogeneity in choice experiments: In a study for the Danish heathlands, we found that people were almost not willing to pay for recreational facilities. A hypothesis is that it is a result of some people having a preference for it, and others a dis-preference for it. Thus a suggestion is to study the heterogeneity in the preferences of this attribute. Methods: choice modelling on existing data

Resource (forest) economics: Hartman extended the well known Faustmann formula to allow for amenities. There are only very few, and rather theoretical attempts to estimate this in reality. This project will use spatial data on forest biodiversity to construct a relationship between stand age and biodiversity. This will following be used to estimate a Hartman model and will be compared with the Faustmann solution. Potentially, spatial adjacency estimation could also be included. Recently the Danish forest council has discussed the implications of private vs social optimal management. The results may serve as a direct input to that debate. Method: GIS, forest economics

Social cost of carbon – for Denmark: By construct social cost of carbon is a global measure, essentially based on an expected damage cost approach. In Danish policy an often asked question is what the consequences are within our borders. Estimating the expected damage cost – and thereby the required level of adaptation – is therefore of importance. But today no such study exist – with coherent data – detailed enough to guide national policies. It is therefore a relevant question to gather the available information, synthesize and see how far we can get. Method: literature survey and expected damage cost approach

Valuing biodiversity: Several stated preference studies exist on valuing biodiversity – in general showing high values which are to a large extend non-use oriented. This study looks at the possibility of linking such value estimates to area based measures that can be used for policy recommendation. The study will use existing data from biodiversity valuation studies, and combine it with literature to come up with a recommendation of such an approach. Method: literature reivew combined with data estimation based on existing valuation studies

Valuing biodiversity: Several studies exist looking at the value of conserving endangered species. Most of these are based on a certain provision - what is WTP for conserving a species for sure. However, nature conservation is not deterministic. So if we want to estimate values for nature conservation with a probability of improved species survival, we need to adjust for this. This study deals with estimating aggregated values to be used in a cost benefit analysis by using existing valuation studies and combine it with studies of presence/absence of species, e.g. from Atlas data. Method: CBA, GIS, species survival modelling

Citizen science is gaining momentum – for example in terms of identifying important sites for recreation and species presence. But a main problem is that data are biased – due to the voluntary approach. This study is a literature study identifying the major limitations, but also potentials which may help guide under which circumstances citizen science is/is not useful, and what measures can be taken to overcome the problems. Literature review and synthesis

For forest management to have a role in climate change policy, an important discussion is whether to keep the wood in the forest, burn it, or store it in materials. While several studies exist estimating total substitution effects, few studies takes into account whether such substitution actually takes place. To do that, it is necessary to look at the elasticities in the market. This study will take point of departure in finding information on these elasticities and build it into a forest management decision model. Requirement: resource economics and/or good mathematical skills. Methods: Literature study, mathematical modelling

Location of windmills: “We have no more room for windmills” is an argument often heard. And we have a lot of empirical evidence of the size of the externalities. But how does this relate to the other factors important for location of windmills? Costs, alternative land-use, wind speed, etc. This study will collect that information into a spatial specific model which can be used to guide decision makers in deciding where to place windmills – and how much it will cost. Methods: CBA & GIS