

Public Views on biodiversity – the construction of attitudes towards biodiversity management

Anke Fischer
Socio-Economics Group
Macaulay Land Use Research Institute

Introduction:

Human behaviour is strongly tied to the socio-economic drivers and to the response section of the DPSIR-model. To understand human behaviour approaches from sociology, economics and psychology are needed as they are concerned with different scales / dimensions i.e.: institutions, the group, the individual.

What are attitudes?

They are (1) relatively stable over time (2) imply certain theoretical assumptions (3) have knowledge-based and value-based components.

Values have been defined as: *transsituational guiding principles in a persons life* (Schwartz & Sagiv 1990).

Information can change attitudes, values influence attitudes and attitudes influence behaviour. So if you want to know something about how people will “behave” in conservation issues it might be a good idea to learn something about their understanding and attitudes towards biodiversity issues.

Two case studies

“Public attitudes to biodiversity and its conservation” an ALTER-Net RA5 project.

Difference to other projects: don’t use scientific concepts as **the** yardstick to measure public awareness and knowledge.

Questions addressed in the project:

What does BD mean to members of the general public? How do they perceive certain species or habitats? What do people value about BD? What do members of the public perceive as relevant issues? What are their attitudes towards measures that address these issues? Which factors influence individuals’ perceptions, values and attitudes?

Methods: Qualitative research in 6 European countries using exploratory group-based approaches, a common discussion guide, spatial references to a certain protected area, and common coding procedure.

In the Scottish case (presented in more detail) also drawings were used (task: draw biodiversity).

Results:

Many are familiar with biodiversity related concepts (i.e. food webs) although not necessarily with scientific terminology. The meaning of BD varies with personal background and cultural context. 3 groups of “meanings” can be distinguished: (1) definitions (2) confusion (3) frustration.

Conclusion: biodiversity has made it to the interested part of the public – critic (frustration) is dominant in professionals (i.e. geographer).

Respondents underestimate their own knowledge – biodiversity is part of a complex mental construct. It has strong normative components (i.e. what is considered the right / wrong state in nature (balance vs. untouched vs. native). Attitudes towards BD-management can be found between the two viewpoints of seeing humans as managers or as enemies.

The “tree mallow” case

On the islet Craigleith the colonies of the Atlantic puffin (*Fratercula artica*) are repressed by the spreading of the tree mallow – an introduced plant.

Three management options are available: (1) cutting tree mallow (2) introduce neutered rabbits (3) spraying the tree mallow with herbicides.

Questions: How do people perceive situation? What do they value about the species and the habitat? What are their attitudes towards management? Are their perceptions and values indeed linked to their attitudes?

Methods: open-ended questions, rankings, attitude and value scale, semantic differential.

Before starting the questionnaire information on options were given.

Results: The attitudes towards tree mallow management are informed by individuals' values and knowledge (perceptions) – so they can also be influenced by the information given before beginning the questionnaire. Strong values are “naturalness” and “balance”. The perceived risk of an intervention is highly important. People distinguish between “allochtony” and “dominance”.

Overall conclusion:

It is not enough to ask peoples views – you have to figure out the underlying concepts, meanings and values.

Public view is not necessarily linked to scientific language but it has to be taken seriously.

Values are important aspects of attitudes.

Communication in biodiversity issues should address values.

Questions (Q) & Answers (A)

Q: what do the people expect in return for participating?

A: the project was not part of a consultant activity. The report was sent to the NP. We told that to the people and it was ok for them. It was a good mixture between science and consultant process.

Q: will this go into ALTER-Net strategies?

A: we will not design awareness or PR activities. But we can give input into the work-package dealing with public-science interface.

Q: you were asking people without mentioning BD?

A: that was very helpful to make them self-aware of their ideas.

Q: are there plans to involve people in conservation management?

A: yes, but difficult access to island.

Q: was the drawing exercise easy to conduct?

A: in general it was received very positive. They really enjoyed it.

Q: were there correlations between the “balance” vs. “naturalness” attitudes and differences in backgrounds?

A: education plays a role – people with higher education tend to support naturalness. If you ask for island no relation anymore. But still in management choices.

Q: did you try to correct for your own values?

A: we tried to write the introduction as neutral as possible and give equal amount of positive and negative information. But what we did not say is: “this covered island is unique”.

Q: would it have changed the outcomes if the tree would have a value? Does it have one?

A: it was used as bandage – but no special use to day. The effects of values are pure in this case – not influenced by economic values.

Q: why quantify?

A: wanted to make statistical tests based on study in Cairngorms. But we also talked to people before, which was a kind of qualitative pre-study.

Q: is the puffin invasive?

A: they are new on this place – but are seen as a Scottish symbol.