

Appendix 1

1) INTERVIEW PARTNERS

ABBREVIATION	DESCRIPTION
AGR1	Farmers' association, regional chapter
AGR2	Regional chamber of agriculture
AGR3	Independent agricultural research center
CHU	Protestant Lutheran church
CON1	Environmental NGO
CON2	Environmental NGO
CON3	Environmental NGO
DEV	EU financed group supporting rural development
EADMIN1	Environmental administration on county level
EADMIN2	State-level environmental administration in charge of national park, UNESCO biosphere reserve and UNESCO world heritage site
MUN	Municipal administration
PLAN	Regional planning company
RES	University
STATE1	State-level planning authority
STATE2	State-level planning authority with focus on environmental aspects
STATE3	State-level planning authority with focus on coordination of tourism
TOU	Regional tourism organization
WAT1	Drinking water supplier
WAT2	Water and draining board
WIND	Planning office specialized on wind energy

2) CODES

Sectors

- Agriculture
- Business
- Citizens
- County
- Federal level
- Energy
- Environmental administration
- EU
- Forest
- Harbor
- Municipality
- National Park/ Biosphere Reserve
- Nature Conservation
- Research
- Resources
- State
- Tourism
- Water
- Wind Energy

Relationships

- Contact
- Nature Conservation – agriculture – tourism - wind

Topics

- Demographic Change
- Hedge banks
- Infrastructure
- Land loss
- Local characteristics

Influence

- Legal
- Political
- Land
- Money

3) DETAILED DESCRIPTION OF RELATIONSHIP TYPES

We found two kinds of formalized relationships: 1) member- and ownership and 2) opinions in planning processes. Formalized relationships can involve stakeholders who else would be outside planning and decision-making processes. However, their capabilities and capacities must also be considered, else they cannot contribute to the process.

Member- and ownership is a tight relationship between stakeholder groups. The drinking water company as well as the tourism board are owned by municipalities and counties. The owners influence the activities of the organizations. The regional development group and a private agricultural research center have representatives of other stakeholder groups in their steering committees. Last, the water board and the chamber of agriculture have compulsory membership for people owning land respectively being farmers. Members have less power than owners but can still influence management decisions.

The other type of a formalized relationship is opinion writing for planning processes. German law demands the consultation of relevant public agencies during planning processes including e.g., ENGOs and other public administrations. One ENGO representative said, "I do not want to know how many opinions are written every year about some plans" (CON3). Since many of the local ENGOs work on a voluntary basis, they try "to sometimes coordinate in order to give together an opinion" (CON3).

Our interview partners reported different institutionalized meetings that are not based on a legal requirement but aim at collaboration and information exchange. There are regular meetings within one stakeholder group: for example, a round table for ENGOs with the aim "to develop a common attitude" (CON2). There are meetings of state and non-state stakeholders in the same sector such as ENGOs with the environmental public administration and the National Park administration. Last, there are cross-sectoral meetings. Representatives of tourist organizations, the National Park administration and counties work for example together in a European INTERREG project on sustainable tourism. Another example is a working group between representatives of the local farmers' association, ENGOs and the environmental administration, which serves as a platform for exchange and trust-building. Interview partners involved in these kinds of meetings were positive about them and their outcomes. The

challenge is to establish and maintain these meetings. Since, they are not required, somebody needs to initiate, organize and host them. However, if they exist they are inclusive allowing different stakeholders to participate.

Many of our interview partners reported on informal relationships within and beyond their sector. They described them as partners (WAT2, EADMIN2, DEV), neighbors (WAT2), and friends (DEV). These relationships exist because individual persons want to have and maintain them. They contribute to an information flow between different sectors. Like the institutionalized meetings, they contribute to the understanding of perspectives of others and knowledge about upcoming activities. Representatives of the agricultural (AGR1) and the environmental (CON2) sector described that they received information about upcoming planning processes in advance through their informal relationships with the public administration. Our interviewees did not tell us about regular informal contacts that had a negative connotation. As these relationships are voluntary, it would be surprising to cultivate a negatively connoted relationship. However, if interview partners talked about informal relationships they were not involved in, the descriptions were not as positive and more skeptical. One interviewee (CON3) voiced the concern that “some things happen there [between local politicians and farmers], which we do not get to know” (CON3). Different than the institutionalized meetings, informal relationships are exclusive in that they are not documented and for example for newcomers it can be challenging to join them.

Sporadic relationships with little information exchange also exist. One explanation is often that only one stakeholder has an interest in the relationship. For example, the water board has contact with local industries and businesses when they themselves initiate the contact. Against this, if the water board had contact with the tourism sector, then “they [tourism] want something from us” (WAT2). There is not necessarily frequent contact between all stakeholders within one stakeholder group. Representatives of tourism, agriculture, nature conservation, but also public administration described that there are groups within their own stakeholder group they have sporadic contact with. For the public administration, mainly suitable platforms are missing to exchange with other administrative units. The other stakeholder groups have often conflicting interests and opinions within their sector.

The last type is no relationship. Sometimes interviewees explicitly expressed that there is no relationship and at other times they did not mention the possibility for a relationship. Looking at the expressed non-relationships, we can differentiate between the intentional and the unintentional not existing relationships. There are intentional non-relationships because attitudes are opposing. For example, a ENGO representative said they do not work with large farms and also not with one other ENGO because it was too extreme in its opinions (CON1). Unintentional not existing relationships also exist. Reasons are that the groups are hard to identify or reach, e.g. wind investors or the EU. Another reason is that there is less of a thematic overlap, e.g. between tourism and the operator of the gas caverns (TOU). To establish relationships would need energy and time of the stakeholders.

4) DETAILED DESCRIPTION OF INFLUENCE TYPES

A major part of legal influence on the landscape lies within “the cascade of planning” (WAT). Land use plans determine what can be done in certain areas. The cascade describes that there are different plans from the state, via the county to the municipality level that inform each other. The most concrete plan is at the municipality level. Nature conservation and renewable energy legislation were additionally named as important laws. While nature conservation laws are mostly based on EU policies (e.g., Natura2000), the renewable energy law is a national law. Legal influence is mostly not connected with on-site individuals but with laws and directives and the administration body that implements them.

Court rulings function as control, which can make it necessary to revise decisions or laws. Our interview partners mentioned lawsuits either citizens or ENGOs initiated against wind parks or if they saw nature threatened.

The political sphere of influence is blurry. A law or measure is the final consequence. However, the way to the decision stays for many interview partners cloudy. Public agencies can normally give an opinion on plans and projects. Depending on the process, also ENGOs, other non-governmental organizations and even citizens can voice their concern or support beside administrative entities such as the water and environmental departments. The members of the municipal council are perceived as powerful because they make decisions with concrete local effects. Different organizations and also individuals influence the decision-making and especially on the local level, stakeholders serve different roles, for example as council member and farmer. Nevertheless, many interview partners recognize the complexity of making land use decisions and nobody raised doubts about the legitimacy of decisions.

Land use shapes the character of the landscape. Non-agrarian interview partners saw land and the power to decide what happens with it as influential. This power is in the hands of landowners and farmers because they make the final land use decision. Members of water boards owning a lot of land have more voting power than those with less land. Interviewees described this as a double power of farmers because they can decide on (1) the land use and (2) the drainage management. However, the representative of the farmers’ association

stressed that there are many demands on the land from e.g. nature conservation or wind energy with the effect that agriculture becomes one of many priorities.

Last financial means influence the landscape development because “if I really want to take some action, I need money for it” (DEV). Subsidies exist for certain land uses and practices especially through the EU Common Agriculture Policy (CAP). A second important subsidy is the national renewable energy act (EEG) that supports the production and installation of renewable energy plants. Until 2017, wind energy in the study area was extremely profitable. Interview partners described that the EFP had extremely economically profited (PLAN). In some areas “you can see hundreds of wind turbines” (CON3) and residents “do not want it anymore” (WAT1). However, an amendment that came into power after the interviews reduces the subsidies in a way that “it will not any longer be that profitable for all. We are happy about this. You must say it like this” (EADMIN).

Other interview partners mentioned subsidies for hedge banks and other traditional land forms in the area (TOU), for certain forms of agriculture such as suckler cow husbandry (AGR1) or for agricultural management that is more environmentally friendly (CON3). Especially the ENGOs representatives described how people in councils are positive towards certain land uses like the exploitation of resources (e.g. sand) and new infrastructure (e.g. high ways) because they see them as economic opportunities. They stressed that there was often not enough money in nature protection to compete against economic uses of the landscape.

5) INFLUENCE LEVELS

Perceived influence: Distribution of perceived influence of interview partner self and of another stakeholder group. Last column lists stakeholder group that was perceived as most powerful by interviewee.

Interviewee	Influence of others	Own influence	Most influence
AGR1	9	1	municipality
AGR2	8	2	ENGOS
AGR3	9	1	state
CHU	10	0	citizens
CON1	9	1	agriculture, business
CON2	10	0	agriculture, county
CON3	10	1	agriculture
DEV	9	1	state
EADMIN1	10	0	municipality
EADMIN2	9	1	agriculture
MUN	6	4	municipality
PLAN	10	0	wind energy, agriculture
RES	10	0	water, agriculture
STATE1	10	0	agriculture
STATE2	10	0	business
STATE3	8	2	tourism
TOU	10	0	National Park
WAT1	8	2	agriculture
WAT2	8	2	water, tourism, National Park, county
WIND	10	0	national