

Social Acceptance of renewable energy in Leiblachtal, Vorarlberg

Identifying potential environmental conflicts with the help of a survey of local residents

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1. Introduction and scope of this study

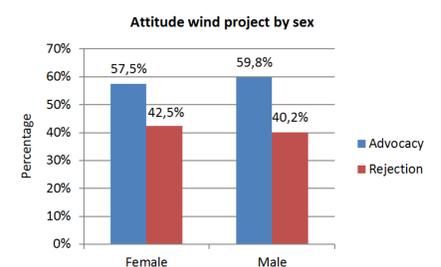
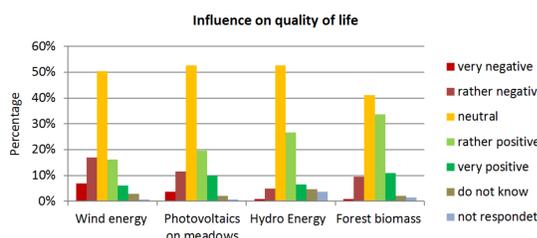
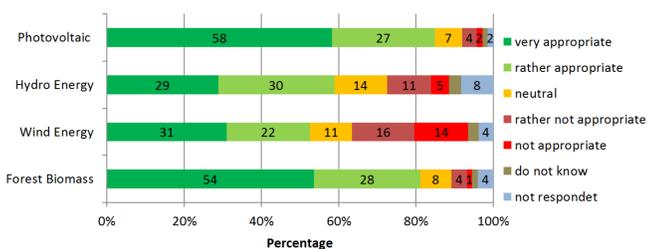
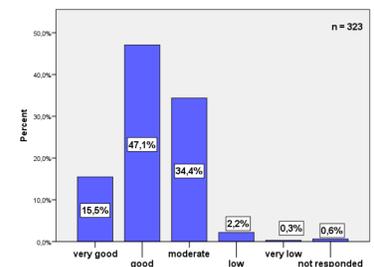
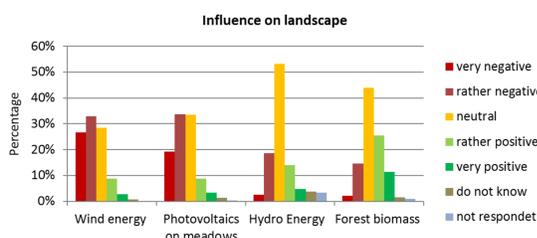
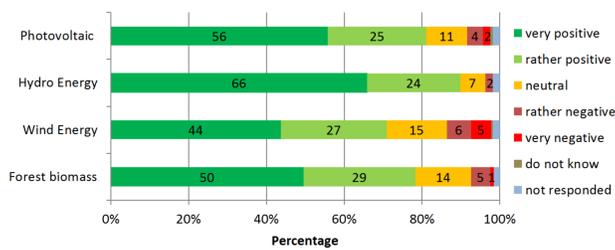
Vorarlberg, a federal state in Austria, has set the goal to achieve energy autonomy by 2050. Therefore this study refers to a region in Vorarlberg, named Leiblachtal, which focuses strongly on the expansion of renewable energy. As social and ecological conflicts can arise from establishing renewable energy facilities, it is important to integrate local people more in the decision making process. Especially the identification of potential local conflicts is crucial for a successful development. Therefore the aim of this study is to analyse public opinion towards energy technology like wind, water, forest biomass and photovoltaics which was conducted by an online-questionnaire.

2. Working process

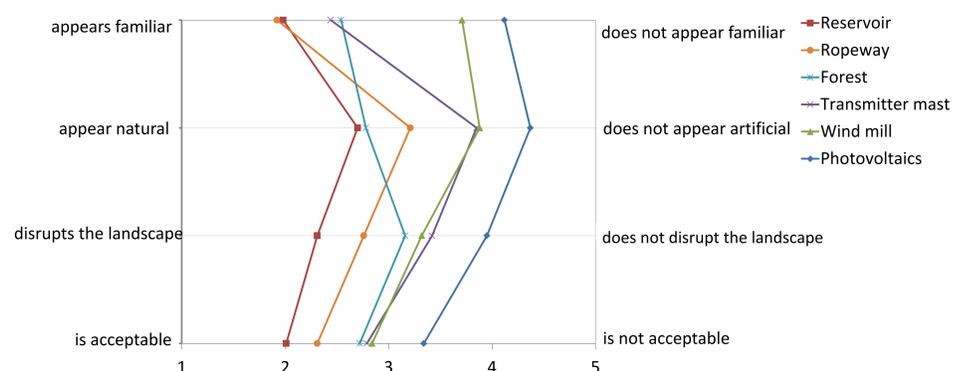
In addition to the assessment of general attitude towards renewable energy the focus also relies on an analysis of local acceptance referring to an expansion in Leiblachtal. Furthermore respondents were asked to self-evaluate their knowledgeability about energy technologies and assess impacts on ecosystem services, social and economic aspects. Another working field in the questionnaire is based on how locals evaluate different technical elements in a natural landscape. Especially this part refers to six landscape images which visualize a transformation of landscape. In total the online-questionnaire was responded by 323 people from Leiblachtal.

3. Results

While a strong acceptance is available to all energies in the general setting, the respondents tend to evaluate worse when renewable energy facilities are expanded in their surroundings. The outcome demonstrates that acceptance especially for forest biomass and photovoltaic in Leiblachtal is even high but wind power and hydropower are ranked even worse by locals comparing to the general assessment. Even though results show different perception of energy technologies, the outcome of self-assessment of renewable energy shows a high-informed local population.



The part in the questionnaire which conclude an evaluation of landscape images shows quite different results. The outcome highlights that certain technologies are ranked better (water reservoir and ropeway) while photovoltaics on meadows was evaluated most negatively by locals. The wind turbine and transmitter mast were nearly ranked similar, simply familiarity deviates from each other. According to this fact additional results confirm that familiarity influences positively the acceptance to renewable energy facilities.



4. Conclusion of this study

The outcome of this study shows that locals of Leiblachtal have a very positive attitude towards energy technology like wind, water, forest biomass and photovoltaics in general. Referring to an expansion in their region they prefer mainly forest biomass and photovoltaics on building areas. Results according to open-end questions and landscape illustrations demonstrate that people tend to show a negative attitude towards photovoltaics on meadows and an extensive deforestation of woodlands. Regarding wind power the attitudes of locals vary from positive to negative, however more than a half voted for the construction of a wind mill in their region. In general more transparency of the project and participation would improve locals attitudes towards this topic.