

An empirical study about the environmental awareness of the citizens around the Arabuko Sokoke Forest in Kenya

Introduction

Within the scope of the project “Reconciling human livelihood and nature conservation in east african forest biodiversity hotspots” in the ASF in 2017 different datas of nature conservation were conducted. Ecological and social aspects were covered not least because of their necessity to be linked. The social research gives an overview about environmental awareness of local farmers in order to protect and support nature conservation strategies. Without an awareness of biodiversity and its appreciation by local people, nature conservation strategies might not be presumed. The study implies aspects of knowledge and attitudes as well as willingness to take part at conservation strategies by local people around the ASF in Kenya. The common scientific literature offers four relevant hypotheses in context of environmental awareness, which are statistically proven. Franzen and Vogl (2010) demonstrated that women have a higher environmental awareness than men. Moreover, Urban (1986) assumes that older people have the same level of environmental awareness than younger people. There is no significant difference. Though the author suggests an effect on educational aspects just like the length of school time. The fourth hypotheses is also based on the research by Franzen and Vogl (2010). It says as higher the income of a person is the higher the level of environmental awareness. Conceptual issues of the measurement of environmental awareness are discussed in the upcoming chapter.

Methods

The study took place in the direct area of the ASF. We conducted our surveys in three areas around the forest. The first area is located in an indentation within the middle of the western forest side. The second one is located to the south east of the first area. The last area in which surveys were conducted lies north west of the first spot. Two hundred and twenty four subjects participated in the survey. All areas were covered within fourteen days by four research teams. Each area includes about fifty respondents. The rate of participation was nearly hundred per cent. Datas were collected by ODK within a standardized questionnaire. Contents of the questionnaire include socio-demographic data, details about land tenure and use, awareness and attitudes by farmers as well as willingness and involvement in nature conservation strategies by individuals. The representative complete survey offers an overview about the environmental awareness by local farmers. Several studies discuss conceptual issues about the latent construct of environmental awareness.

Currently different theoretical conceptualizations exist, which include diverse variables to measure environmental awareness. Nevertheless, first of all it is important to define the term. Spada (1990) portrays five comprehensions of the theoretical approach. The narrower comprehension includes environmental experience and concernment. A middle comprehension contains environmental knowledge, value orientation and intentions of attitudes. The broader meaning also includes the environmental manifest behavior. All dimensions are covered by the questionnaire. Therefore, four dimensions of environmental awareness are ascertainable. Environmental attitudes and problem perceptions, knowledge and willingness to be part of nature conservation strategies are among the dimensions. In order to measure environmental attitude responses were made on a five-point Likert scale from strongly disagree to strongly agree, based on the question “Please indicate how much you agree or disagree with the following statements”. A factor analysis shows following which items measured the same subdimension of environmental awareness. The same method is used to generate subdimensions of willingness. Variables of environmental knowledge were summed up. Respondents were asked whether they know endangered as well as endemic animals and plant species in this area. These independent variables of subdimensions are examined in relation to various dependent variables (Urban, 1986: 363-377). Dependent variables are gender, age, education status, level of income, size of the farm, subjective feeling of community involvement in nature conservation strategies, number of children and whether the respondent is making an own effort in order to protect the nature. Through the data analysis diverse connections and causalities were identified. Cross tables and binary logistic regressions are used.

Results

After the calculation has been made, the result can be used to determine the level of environmental awareness. Therefore, the subdimensions verify or falsify the mentioned hypotheses. Women have a higher environmental awareness than men. Moreover, women indicate more environmental knowledge than men. Merely within the willingness to adopt nature conservation strategies men show a higher approval. The second hypothesis, which implies that there is no significant difference between the environmental awareness of older and younger people, applies in this study. Neither by bi- nor by multivariate analysis a relationship is documented. The hypothesis “as longer the school time was the higher the level of environmental awareness” is falsified within the research. An association between knowledge and the level of education is repealed by multivariate analysis. An influence could have been suggested by a third variable effect. The last hypothesis which assumes that people with a higher income have a higher level of environmental awareness is partially correct in this case. Connections exist between the willingness and the level of the income. The direction of

the connections are not determined. Though it can be observed that respondents with a higher income per month (>15.000 KHS) are more likely to participate in environmental projects than respondents with a middle income (5.000-15.000 KHS). Moreover, respondents with a higher income have more environmental knowledge than people with a middle income. Another effect shows a causality between a lower income and an environmental problem perception. Respondents with a lower income have a higher environmental problem perception than respondents with a higher income.

Discussion

Hypotheses which are falsified within the study could be based on the different provision of the researches. As Urban (1986) already clarified, minimal differences within the provision could lead to maximal differences within the results. Moreover, other dependent variables could have been included in regression models. The use of different source of media could have shown an effect on environmental knowledge. Therefore, environmental knowledge could be published by this source. To promote environmental knowledge even more, the community could be stronger involved in nature protection decision making processes. Strategies could be accepted better by local people if they participate in them. Moreover, the results show a causality between environmental knowledge and the number of children. As more children a person indicates the higher is the knowledge of plants and animal species. Children could transfer their knowledge to their parents. Therefore, projects in schools which include parents and older people of the location could be supported. Within public meetings ideas of new environmental and biodiversity supporting revenue streams could be collected and organized. In general the environmental awareness of local people in the area of the ASF is high.

References

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