

## Environmental Protection: Leading by Example

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Keywords: Environmental, willingness to pay, gender, Andalusia.

There is a general agreement on concerns about environmental problems. In other words, there is consensus about the need to protect and care for the environment. In general, the citizenship usually receives with interest and reacts positively to the initiatives that promote good environmental behaviors. Nevertheless, this good theoretical inclination weakens on having known the expenditures related to the recovery and preservation of the environment, particularly when the citizens become aware of the direct consequence for their pocket.

This work exposes the disagreement between the environmental concern and the money people are disposed to pay to dismiss the above-mentioned fear. The **objective** of this work is to try to connect the importance given to the environment with the predisposition to contribute monetarily to the conservation and maintenance of it, focusing on the Autonomous Community of Andalusia.

Our starting **hypothesis** is twofold. On the one hand we argue that there is a gap between the concern that the person declares for the environment and the willingness to contribute monetarily to its maintenance. And, on the other, we propose that this gap is different according to sex, due to gender issues.



## **METHODOLOGY**

For Andalusia, there is information on the importance given by citizens to environmental issues thanks to the Ecobarometer (EBA). It is an annual survey conducted by the Information Network of Andalusia with the collaboration of the Institute of Social Studies of Andalusia (IESA), in the framework of Decree Rediam 347/2011. The data of the EBA 2009 have been used, although there are later editions, in order to be able to complete these data with those offered by the "Social Reality Survey in Andalusia" (ERSA), prepared by the Sociology Department of the Andalusian Studies Centre, that dedicated one of its rotary modules to the environment precisely in the year 2009.

We begin with an exploratory phase in which, after examining the literature, we elaborate our theoretical starting assumption, which allows us to know the methods that have been successfully applied to analyze the problem, as well as the variables necessary for our study. With this we improve our hypotheses and design the research that, in a first phase will be descriptive to later use statistical inference, testing our hypotheses with parametric and non-parametric analysis and the use of SPSS software.

## **MAIN RESULTS**

With the analysis of the information provided by the Andalusian Ecobarometer (EBA) and the Social Reality Survey in Andalusia (ERSA) we could observe the limited materialization in Euros of the high environmental worry, finding that the analyzed population is very far from leading by example and that it gives a void value to his environmental awareness. We have also made the analysis separately for different kind finding unlikeness that, even if they are small, they ought to be mentioned.

In more detail, some of the results obtained have been the following:

- 47.45% of men and 44.79% of women consider public expenditure on environmental protection should to be higher. The non-parametric U-test of Mann-Whitney has given a value of  $p = 0.319$ , so it can be concluded with 95% confidence that there are no significant differences between the answers to the question of whether they would like to spend more or less in the protection of the environment according to the sex of those who respond.
- With regard to the willingness to pay higher prices to protect the environment, 40.8% of men are not willing to pay more on a personal level to protect the environment, a percentage that rises to 43.2% for women. In order to test for differences between men and women, we performed a mean equality test, in which significant differences were found at the level of 0.6% ( $X^2 = 14.46$ ), with a confidence interval of 95% (-0.303; -0.041), concluding that the willingness to pay men is significantly higher than that of women.



- Both sexes are predominantly willing to pay no more taxes to protect the environment, and there are no significant differences except in extreme positions: "very in favor" and "very against".
- Both sexes are conditioned by their income levels (significant and negative correlations): lower income less willingness to pay. Although the ratio for women almost doubles that of men.
- In women, the greater the perception of the deterioration the higher the probability of accepting higher prices, but in men the relationship is not appreciated.
- Neither for men nor for women, their predispositions for payment are not significantly correlated with their opinion about the environmental effectiveness of their decisions, whether these are taken regardless of whether they think they will affect the community or not.
- The Anova tests confirm that political ideology is not a significant variable for women ( $F = 0.63$ ,  $\alpha = 0.531$ ) and yes it is for men ( $F = 2.69$ ,  $\alpha = 0.069$ ).
- There are negative correlations between the degree of confidence in others and willingness to pay, but not significantly to 95% in men (correlation coefficient =  $-0.074$ ,  $p = 7.1\%$ ) and yes in women (correlation coefficient =  $-0.197$ ,  $p < 1\%$ ).

## CONCLUSIONS

The analyses carried out, lead us to accept our first hypothesis. Therefore, we find that there is a gap between environmental concern and the predisposition to contribute monetarily to environmental sustainability, either via price increases or via tax increases.

The same people who think that the Government should spend much more or more on environmental protection do not think that prices should increase –approximately 68% (81% in men and 45% in women) -, and they do not think that taxes should be increased -approximately 47% (29% in men and 45% in women)-.

These dissimilar results regarding price and taxes lead us to be unable to be convincing with the second hypothesis, men and women behave significantly differently when they must "attenuate" their concern about the environment via prices, but not when is via tax.

This leads us to delve into the possible socioeconomic characteristics that make them different. We found that the characteristics that affect are family income, the perception of true environmental deterioration and the degree of trust in others. The political ideology, however, which, for many authors is decisive, in the study performed is not significant for the willingness to pay.



Together with the conclusions drawn, we must point out that they should be restricted to the Autonomous Community of Andalusia, for which data are available that have allowed us to deepen the analysis, and cannot be extrapolated to the entire national territory, because instead of being the most populated Community in Spain, the size of the sample extracted in it does not allow it. It would be interesting to have a database at the national level where more general conclusions could be drawn, and even to compare some Communities with others.

