

## ENVIRONMENTAL ACTIONS AND ATTITUDES TO GREEN CONSUMPTION IN BULGARIA<sup>1</sup>

**Assistant professor Borislava Stoimenova, PhD  
University of National and World Economy, Sofia, Bulgaria**

***Abstract:** This paper examines the engagement in environmental actions of the Bulgarians and its relationship with the environmental concern and the predisposition for green consumption as two commonly studied attitudes to green consumption. The results indicate that the majority of the Bulgarians are not engaged or they are slightly engaged in environmental actions. The better educated, younger, wealthier people and the people who live in the cities have higher engagement in environmental actions. If people participate in any environmental action it is likely that they will be more concerned for the environment. The more extensive the engagement is, the higher the environmental concern is expected to be. The correlation between the environmental actions of the Bulgarians and their predisposition for green consumption was proven to be positive.*

***Keywords:** environmental actions, green attitudes, green consumption.*

### 1. Introduction

Sustainable development, which balances current needs with the needs of future generations, is at the core of the UN's agenda.<sup>2</sup> As stated in the preamble, “this Agenda is a plan of action for people, planet and prosperity”. It outlines 17 integrated sustainable development goals and 169 targets, balanced around the three dimensions of sustainable development: the economic, social and environmental.

Goal N12 is: “Ensure sustainable consumption and production patterns”. According to Ken Peattie, “developing more environmentally sustainable consumption and production systems depends upon consumers' willingness to engage in greener consumption behaviors”<sup>3</sup> To explore the

---

<sup>1</sup> This paper is part of an ongoing research project titled “Green consumption in Bulgaria: attitudes, intentions and behavior”, University of National and World Economy research contract № NID NI 1-3/2015, project manager professor Simeon Denev Jeleu, PhD.

<sup>2</sup> UN. Transforming our world: 2030 Agenda for sustainable development. United Nations, Seventieth session, 2015

<sup>3</sup> Peattie, K. Green Consumption: behavior and norms. Annual review of environment and resources, 35, 2010, p.195

state of green consumption in Bulgaria, we divided the problem in three broad categories: attitudes, intentions and behaviour and studied the relationships between them. Our general goal is to derive useful conclusions and insights for policy makers and marketers in Bulgaria.

The purpose of this paper is to investigate how engaged the Bulgarian people are in environmental actions and how this engagement is related to their attitudes to green consumption.

## **2. Methodology**

The methods that we used for this analysis are descriptive statistics, hypothesis tests for difference of means between two independent samples, the correlation analysis (chi-square test for independence) and the cluster analysis (K-means cluster). A structured questionnaire was the instrument to collect the data from a quota sample (quotas for age and gender) of 2018 adults living on the territory of Bulgaria in November-December 2015. We conducted face-to-face interviews and online surveys. IBM SPSS 22 was used for the data analysis and Excel 2010 for graphical representations of the data.

## **3. Engagement in environmental actions**

The engagement of people in environmental actions can be measured by questions for their membership status in environmental organizations and associations, by their commitment to reading books on such topics<sup>4</sup>, by their involvement in social entrepreneurship activities and voluntary initiatives as forms of collective efforts for achieving changes in behavioral patterns<sup>5</sup>, etc.

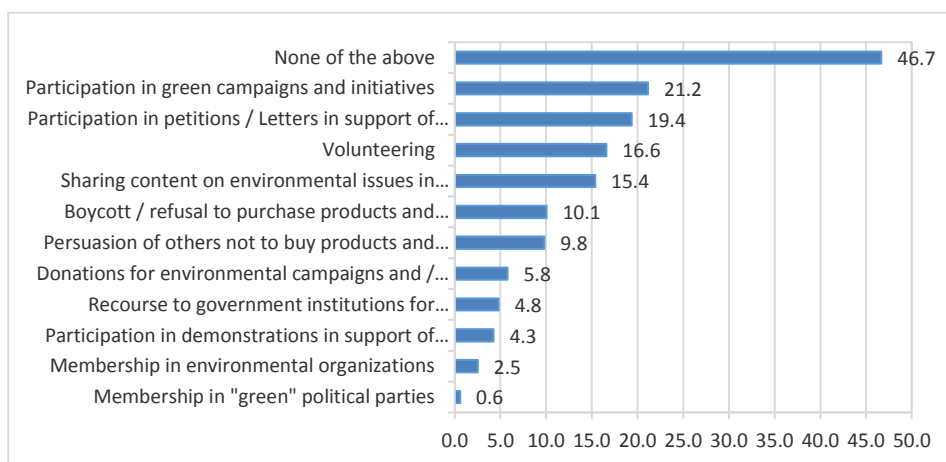
The larger proportion of the Bulgarians (46.7%) state that they are not engaged in any of the stated actions (Figure 1). The ones who are engaged participate mostly in short term campaign activities (21.2%) and sign petitions or write letters in support of environmental causes (19.4%). Other activities that do not require much effort or “losses” are also appealing to the population in Bulgaria. The Bulgarians are not politically active as it comes to defending the green idea. It is obvious that the participations in activities requiring more and systematic efforts and also greater responsibility, are substantially less than the participations in short term campaign and easy to implement activities. Overall, the Bulgarians

---

<sup>4</sup> Arbuthnot, J. The roles of attitudinal and personality variables in the prediction of environmental behavior and knowledge. *Environment and behavior*, 9(2), 1977, p.217-232.

<sup>5</sup> Jackson, T. *Motivating sustainable consumption: a review of evidence on consumer behavior and behavioral change*. Sustainable development research network, 2005

are not members of environmental organizations; they do not participate in demonstrations in support of environmental causes and do not take the initiative to approach the government institutions for environmental problems and violations. Donations for the benefit of ecological campaigns and/or organizations are also not a common practice.



**Fig. 1.** Engagement in environmental actions (%).

### 3.1. Engagement in different ecological activities

The data shows that the engagement of the Bulgarians is not extensive at all. The average participation rate for the country includes only one activity. More than one third of the Bulgarians (38.0%) are engaged in one or two activities. The people who participate in three to five activities are 12.6% of the Bulgarians, while the most engaged ones with participation in six to eleven activities are a minority (2.2%). Taken all of the stated above we can conclude that the Bulgarians are engaged in environmental actions but their engagement is not extensive. (1)

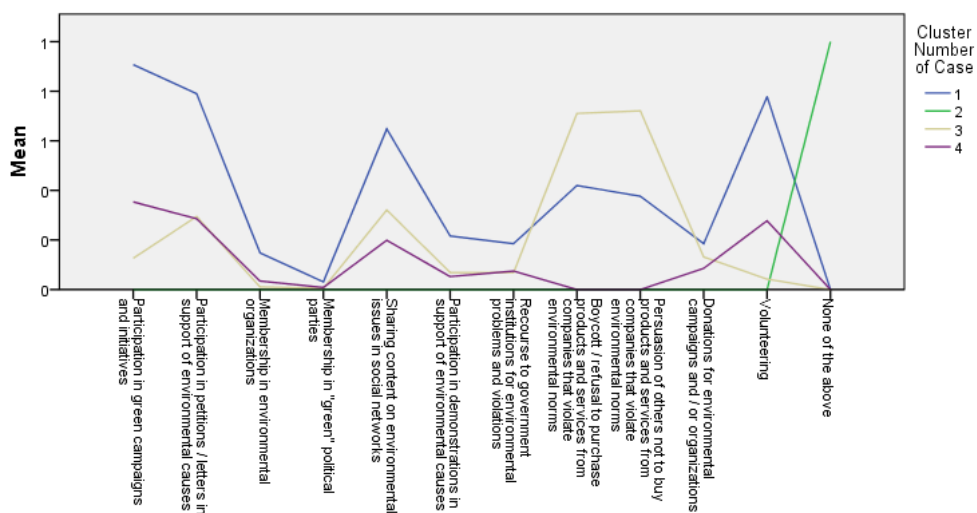
### 3.2. Engagement between different demographic groups

Using cross tabulation we outlined the demographic profile of two different segments of Bulgarian adults according to their engagement in environmental actions: (1) more engaged are people who: are better educated, younger, living in the cities, wealthier; (2) less engaged are people who: are not so well-educated, older, living in the villages, poorer. As a result of this, we assumed that the better educated, younger, wealthier people and the people who live in the cities have higher engagement in environmental actions. We proved this assumption we with hypothesis tests

for difference of means between two independent samples (nonparametric U test Mann-Whitney,  $p=0.000 < 0.05$  for all variables). (2)

### 3.3. Types of engagement

In order to find out if there were different groups of people with similar types of engagement in environmental actions, we used cluster analysis (K-means cluster). The following segments were outlined: (1) *moderately engaged* - people who are involved in different but mostly easy to execute activities (162 cases); (2) *not engaged* - people who are not involved in any of the listed green activities (942 cases); (3) *boycotters* - people who refuse to buy and / or persuade others not to buy products from companies that violate environmental norms (190 cases); (4) *slightly engaged* - people with a little engagement in a small number of green activities (724 cases). This shows that most people in Bulgaria are either not engaged or slightly engaged in environmental actions (3)



**Fig. 2.** Classification of Bulgarian adults according to their engagement in environmental actions.

### 4. The relationship between engagement and attitudes

Ecological concern and inconvenience are among the most studied attitudes when it comes to green consumption research<sup>6</sup>. The *ecological concern* is the extent to which one finds the ecological problems to be

<sup>6</sup> Laroche, M., Bergeron, J., Barbaro-Forleo, G. Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18(6), 2001, p. 503-520

important no matter if he finds it of importance for himself or for the whole society<sup>7</sup>. The *inconvenience* is determined by the extent to which someone has difficulties and he needs to make compromises when it comes to green consumption<sup>8</sup>.

#### 4.1. Engagement and environmental concern

Our research shows that the Bulgarian people are concerned about the environment: for 76.0% of them the pollution in the country is really important problem and for almost all of them (94.2%) the problem is important. The data in Table 2 shows that the more extensive the engagement of the Bulgarians in environmental actions is, the more conscious people are about the importance of the environmental pollution. It is observed that a larger proportion of the people who are engaged in different environmental actions think that the pollution of the environment is an important problem. The chi-square test for independence indicates that this relationship is statistically significant ( $p=0.000<0.05$ ), and it is weak (Cramer's  $V=0.201<0.3$ ). The two conditions for running a chi-square test in this case are not met - the minimum expected count is  $0.72<1$  and 5 cells ( $25.0\%>20\%$ ) have expected count less than 5. This suggests that we should be a little skeptical to the results of the chi-square analysis. (4)

**Table 1.** Engagement and environmental concern (%)

|               | Engagement in environmental actions |      |      |      |      |      |      |     |     |     |
|---------------|-------------------------------------|------|------|------|------|------|------|-----|-----|-----|
|               | 0                                   | 1    | 2    | 3    | 4    | 5    | 6    | 7   | 8   | 11  |
| Not important | 32.4                                | 19.3 | 14.5 | 13.4 | 11.8 | 18.2 | 5.0  | 0.0 | 0.0 | 0.0 |
| Important     | 67.6                                | 80.7 | 85.5 | 86.6 | 88.2 | 81.8 | 95.0 | 100 | 100 | 100 |

#### 4.2. Predisposition for green consumption

More than half of the Bulgarians (57.7%) feel predisposed to make compromises with the functional quality of a product if this product is less polluting the environment. Almost everyone in Bulgaria claims being concerned about the conservation of the environment but a little more than half of them (57.7%) are willing to make a compromise with the quality of the product provided it is not polluting the environment that much. The data in Table 3 shows a positive correlation between the engagement in

<sup>7</sup> Roberts, J. A., Bacon, D. Exploring the subtle relationships between environmental concern and ecologically conscious consumer behavior. *Journal of Business Research*, 40(1), 1997, p. 79-89.

<sup>8</sup> Yankelovich. *Going green. The futures company. Yankelovich Monitor Perspective.*, 2007

environmental actions and the predisposition of the Bulgarians for green consumption. The more extensive the engagement in environmental actions is, the more willing to compromise with the product quality (predisposed for green consumption) people are. It is observed that a larger proportion of the people who are engaged in different environmental actions are predisposed to green consumption. The chi-square test for independence indicates that this relationship is statistically significant ( $p=0.000<0.05$ ), and it is weak. (Cramer's  $V=0.237<0.3$ ). The two conditions for running a chi-square test in this case are met - the minimum expected count is  $1.26>1$  and 4 cells ( $20.0\%=20\%$ ) have expected count less than 5. From here we can conclude that there is a positive correlation between the environmental actions of the Bulgarians and their predisposition for green consumption (5)

**Table 2.** Engagement and predisposition to green consumption (%)

| Predisposition to compromise | Engagement in environmental actions |      |      |      |      |      |      |      |      |
|------------------------------|-------------------------------------|------|------|------|------|------|------|------|------|
|                              | 0                                   | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
| I am not willing             | 53.8                                | 34.3 | 33.8 | 25.4 | 23.5 | 27.3 | 15.0 | 53.8 | 12.5 |
| I am willing                 | 46.2                                | 65.7 | 66.2 | 74.6 | 76.5 | 72.7 | 85.0 | 46.2 | 87.5 |

### 5. Conclusion

Based on our summaries (1), (2), (3), (4) and (5) we can make the final conclusion that the majority of the people in Bulgaria are not engaged or slightly engaged in environmental actions. The better educated, younger, wealthier people and the people who live in the cities have higher engagement in environmental actions. If people participate in any environmental action it is likely that they will be more concerned for the environment. The more extensive the engagement is, the higher the environmental concern is expected to be. The correlation between the environmental actions of the Bulgarians and their predisposition for green consumption was proven to be positive.