

# A sociological study of the influential factors in environmental behaviors

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## ABSTRACT

Recently, environmental crises have become important challenges for humans. Many scientists have made efforts to reduce or prevent these crises by technological solutions. However, some researchers have emphasized on the necessity of new interactions between human and nature and the need for a new environmental culture. The present study aimed to assess the environmental culture and its influential factors in the citizens of Noor Abad in Delfan, Iran. The participants were selected randomly, and 385 questionnaires were completed. Data analysis was performed in SPSS version 24. The correlation between environmental awareness and environmental behaviors was 0.524, while it was estimated at 0.542 for individualism, 0.573 for social capital, 0.533 for social norms, 0.642 for life satisfaction, and 0.750 for the general influential factors. These values were considered significant at 0.99. In addition, the positive correlation indicated that higher values of the influential factors enhanced environmental behaviors.

**Keywords:** Environmental awareness, Environmental behavior, Life satisfaction, Individualism, Social norms

## Introduction

Nowadays, the environmental behaviors of humans are considered to be important factors for environmentalists.<sup>1</sup> Environmental interactions and behaviors affect most of the issues and threats regarding the environment. These interactions are influenced by several factors, such as the population of the community and social and cultural backgrounds, which cause individuals to have different behaviors toward the environment. Environmental behaviors may be negative and against the environment, neutral or completely positive with protective effects on the environment.<sup>2</sup>

Numerous environmental threats, resource degradation causes, and environmental pollutants result from human behaviors, and changes in human behaviors could reduce these environmental issues. The first step in this regard is to change the ethics of the influential factors in environmental behavior.

According to a study conducted in 2017, there are significant associations between values, beliefs, and environmental awareness and environmental behaviors. Environmental behaviors vary depending on age, gender, and marital status.<sup>3</sup> Another research performed on 385 citizens in the urban and rural areas of Kermanshah (Iran) also indicated that the behaviors of the citizens were responsible for many environmental hazards, and the average behaviors differed depending on age and marital status.<sup>4</sup> In contrary, another study reported no significant correlation between gender and environmental behaviors.<sup>5</sup>

According to the researchers in Delfan (Iran), issues such as air pollution, recent dust events, urban runoff, illegal hunting of local animals, forests fires, destruction of wild habitats, daily waste generation, draught, and over-consumption of water, power, and gas are significant environmental concerns caused by human behaviors. Furthermore, the reports of the Natural Resources Office and Agriculture Jihad Office (2016) have suggested excessive environmental destructions in this city. Recently, 3,754,785 square meters of the forests in this area have been destroyed completely;

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some the main events include cutting of 842 trees, 10 substantial forest fires, 24 cases of illegal cattle grazing, and 160 illegal wells. Another major source of environmental pollution in Delfan is the disposal of municipal and biomedical wastes (up to 70 tons per day) in the environment using unsanitary, non-standard methods. Delfan is located in Noorabad and has no wastewater treatment plant; consequently, the produced wastewater enters Gachineh and Badavar rivers through unsanitary routes. Experts have estimated that 60,000 cubic meters of municipal wastewater enters these rivers each year, which not only poses significant risk to the health and wellbeing of the citizens, but it also gives rise to environmental catastrophes.<sup>6</sup>

Statistics suggest that the environmental status in Delfan is catastrophic and declining constantly. Therefore, proper measures should be taken to address the subsequent issues structurally and interactively. From the structural perspective, governmental operations are reported to abolish the environment, and the main cause of these issues is the misconducts and incorrect policies of the statesmen. In addition, the environmental behaviors of the citizens play a key role in these issues. The structural aspect is focused on the inappropriate behaviors of the citizens toward the environment. Surveys have denoted that this aspect is mostly of a social nature in this area. Some of the influential factors in the environmental behaviors of humans include environmental awareness, life satisfaction, cultural capital, individualism, and social norms.

Environmental awareness seems to predict the environmental behaviors of individuals.<sup>7</sup> Life satisfaction is the attitude of individuals toward the world they live in, which is also associated with political consequences and significant in cultural and civilizational contexts. Seemingly, life satisfaction is relatively low in Delfan.

Currently, special attention has been paid to cultural capital and its development for the control of social issues, such as environmental crises.<sup>8</sup> Sustainable development is a function of cultural capital. Delfan is a traditional city with

an average cultural capital. Regarding social norms, it seems that individuals follow the principles that are expected of them. Individualism is correlated with the self-esteem, self-actualization, and self-dependence of individuals, which are all positive concepts. Considering that Delfan is deprived of many facilities, individualism is not properly preserved in this area. This sociological study aimed to assess the influential factors in the environmental behaviors of the citizens of Noorabad Delfan, Iran.

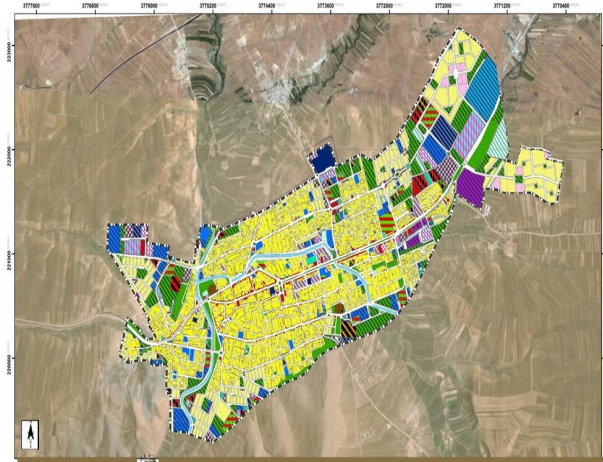


Fig. 1. Location of studied area

## Materials and Methods

Delfan has a special geographical location in Iran, where environmental behaviors are of paramount importance (Fig. 1). According to the census conducted in 2016, the population of Noorabad is 53,312. The sample size of this study was determined using the Cochran formula and estimated at 385.<sup>9</sup> The participants were selected randomly. Data were collected using a researcher-made questionnaire, the items of which were scored based on a Likert scale. The validity and reliability of the questionnaire were confirmed using Cronbach's alpha coefficient.

## Results and Discussion

### *General characteristics of the participants*

Among 385 participants, 55.84% were male, and 44.15% were female. In terms of age, 20.25% were aged 15-20 years, 32.46% were aged 25-30 years, 26.49% were aged 35-45

years, and 20.77% were aged  $\geq 45$  years. Regarding profession, 10.90 percent were government employees, 41.29 were self-

employed, 17.40 percent were jobless and 30.38 percent were students.

Table 1. Results of tests regarding correlation between research variables and independent variable

The relation between the variables	Statistical tests and their results				
	Pearson correlation coefficient	The level of correlation meaningfulness	Relation intensity	The final result of the test	
Environmental awareness and environmental behaviors	0.524	0.001	Strong	Significant and direct relation	Direct relation
Individualism and environmental behaviors	0.542	0.001	Strong	Significant and direct relation	Direct relation
Cultural capital and environmental behaviors	0.573	0.001	Strong	Significant and direct relation	Direct relation
Social norms and environmental behaviors	0.533	0.001	Strong	Significant and direct relation	Direct relation
Life satisfaction and environmental behaviors	0.624	0.001	Strong	Significant and direct relation	Direct relation

According to the information in Table 1, the correlation-coefficient between environmental awareness and environmental behaviors was 0.524, while it was 0.542 with individualism, 0.573 with social capital, 0.533

with social norms, 0.642 with life satisfaction, and 0.750 with the general influential factors. These values were considered significant at 0.99.

**Multivariate regression  
Regression analysis**

Table 2. Multiple correlation-coefficients and determination coefficients regarding associations between environmental behaviors as dependent variable and different independent variables

Stage	Independent variable	Coefficient		Anova		Model summary	
		Beta	Sig.	F	Sig.	R	R square
First	Environmental awareness	0.155	0.001	75.050	0.000	0.524	0.275
Second	Life satisfaction	0.161	0.001	138.84	0.001	0.642	0.412
Third	Cultural capital	0.177	0.001	75.050	0.001	0.573	0.275
Fourth	Cultural norms	0.212	0.001	78.455	0.001	0.533	0.284
Fifth	Individualism	0.161	0.001	11.773	0.001	0.624	0.412

According to the information in Table 2, the environmental awareness variable alone could determine 0.155 of the variance of the dependent variable. At the next stage, the variable of life was satisfaction was observed to determine 0.161 of the variance of the dependent variable, while social capital determined 0.177, cultural norms determined 0.212, and individualism 0.161 of the variance of environmental behaviors. The *f* ratio was also

considered significant in all the stages. Based on the regression coefficients, the variables of environmental awareness, life satisfaction, cultural norms, and individualism have direct associations with the dependent variable (i.e., environmental behaviors).

The correlation between environmental awareness and environmental behaviors was estimated at 0.524, the effect of which was proved with 27% determination coefficient.

This finding is consistent with the results obtained by Salehi and Karimzadeh.<sup>10</sup>

In the present study, the correlation-coefficient between life satisfaction and environmental behaviors was 0.642, which is in line with the findings of Dunlap *et al.*<sup>11</sup> In addition, the correlation-coefficient of cultural capital with the dependent variable was estimated at 0.573 with 32% determination coefficient. This finding is consistent with the results obtained by Ahmadian and Haghghatian<sup>12</sup> and Adhami and Akbarzadeh.<sup>13</sup> Iranian families should be educated and train their children on responsible environmental behaviors and biologic attitudes toward protecting the environment.

The effect of social norms on environmental behaviors was confirmed at the correlation-coefficient of 0.533 and determination coefficient of 28%. Social norms reflect the social pressure perceived by an individual, leading them to form distinct behaviors. In other words, social norms represent the impact of the behaviors of key individuals or the community on the individual, leading them toward specific behaviors or preventing certain actions. On the other hand, the social norms and beliefs of others help form the subjective norms of individuals, determining whether the individual should adopt a specific behavior. Therefore, it could be concluded that enhancing social norms could eliminate the barriers to sustainable development. This finding suggests that socio-structural factors could predict the policies to promote responsible environmental behaviors in citizens.

According to the current research, individualism was significant with the correlation-coefficient of 0.542 and determination coefficient of 41%. Individualism is a period when one is faced with the diminution of the importance of traditions in social existence, which reduces the homogeneity of human behaviors since social life does not follow the same patterns.

## Conclusion

This study aimed to investigate the environmental culture of Noor Abad, Delfan

and the influential factors in this regard. The participants were selected via random sampling, and the required data were collected from 385 participants using a questionnaire. The findings suggested that environmental awareness, life satisfaction, cultural capital, individualism, and social norms had positive, significant correlations with environmental behaviors. Therefore, emphasis should be placed on the fact that the environment is one of the most important pillars of sustainable development, and the growth of other sectors depends on the sustainability and proper functioning of this concept. Considering that the environment and nature are the natural habitat of humans, they should be respected as the 'cradle of man'. As such, humans should establish such relationship with the environment that along with enjoying natural benefits, they also help maintain the health and stability of nature.

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