

Environmental Concern: A Cross National Analysis

Madalla A. Alibeli, Assistant Professor of Sociology, University of Louisiana at Monroe, alibeli@ulm.edu
Chris Johnson, Professor of Gerontology, University of Louisiana at Monroe, cjohnson@ulm.edu

Abstract

Environmental concern among samples of college students in Bahrain, Jordan, Qatar, and Saudi Arabia (BJQS) was examined. Data for this study were extracted from a Middle Eastern Environmental Attitudes Survey conducted at the University of Bahrain in Bahrain, King Saud University in Saudi Arabia, Mu'tah University in Jordan, and Qatar University in Qatar. Findings indicated high to moderately high levels of concern about the environment among college students in (BJQS). However, concern about the environment varied according to students' socioeconomic and demographic characteristics.

Key Words: Environmental Concern. Cross National Analysis. College Students. Middle East.

Introduction

Environmental concern in the Middle East was overlooked by major cross-cultural studies conducted in the last two decades (Dunlap et al., 1993, Inglehart, 1995, Tuna 1998, and Zelezny et al., 2000). Dunlap and associates (1993) examined environmental concern in 24 developing and developed countries. Inglehart (1995) explored public support for the environment in 43 countries around the world. Tuna (1998) assessed environmental attitudes in 18 countries. In addition, Zelezny et al., (2000) studied environmentalism in 14 countries. Unfortunately, none of these studies examined environmental concern in any of the 22 Arabic speaking countries in the Middle East. To fill a gap in the literature, this research investigates environmental concern among samples of college students in Bahrain, Jordan, Qatar, and Saudi Arabia.

Environmental concern indicates "the degree to which people are aware of problems regarding the environment and support efforts to solve them and or indicate the willingness to contribute personally to their solution" (Dunlap and Jones, 2002: 485). In general, research on environmental concern includes (1) Attitudinal studies that examine differences in opinions about the environment based on respondents' demographic and socioeconomic characteristics (e.g., country, social class, income, race, gender, and age; (2) Experimental and quasi-experimental surveys that test hypotheses derived from social-psychological theory like norm-activation theory; (3) Applied research on environmental attitudes and behaviors which investigate social factors related to behavior associated with the environment such as littering, recycling, and energy conservation (Buttel, 1987).

A review of the literature indicates country, gender, social class, and education as important factors that affect people's awareness of environmental problems; shape their efforts to solve environmental problems; and influence their willingness to contribute to solutions to environmental problems. For example, thorough and extensive cross-cultural studies revealed high levels of concern about the environment in both rich and poor countries (Dunlap et al., 1993, Inglehart, 1995). These results led Dunlap and associates to question the validity of the 'conventional wisdom' that 'concern' about the environment is 'limited' to developed and industrialized nations. According to Dunlap and associates (1993: 36), "environmental problem are salient and important issues in both wealthy and poor nations and residents in poor nations expressed as much concern about environmental quality as do those living in wealthy nations". Consequently, it was argued that such strong of support for the environment is in fact an indicator of a paradigm shift in the relationship between society and the environment (Bell, 2009). According to Bell (2009: 173), Dunlap, Catton, and colleagues' paradigm shift theory suggests "that in response to discrepancies between evidence of environmental threats and ideologies that do not consider environmental implications, people are slowly but steadily adopting more environmentally aware view of the world". In addition, a paradigm shift theory implies that "people are becoming more aware of the real material effects that industrial life has on the environment, and their ideologies are beginning to change to match this new understanding" (Bell, 2009: 173).

Inglehart (1995) took the issue of strong global support for the environment a little further. Instead of focusing on the levels of support for the environment themselves, Inglehart examined the nature of environmental support in rich and poor nations and its driving forces. According to Inglehart, public support for the environment in the developing world is an anthropocentric and reactive support that is driven by objective factors like air and water pollution and

environmental threat to survival. In contrast, public support for the environment in the developed world is proactive and ecocentric in nature. Based on Inglehart, strong support for the environment in the West is associated with a cultural shift from a materialist culture focusing on economic and physical security to a post-materialist culture focusing on freedom, self-expression, and quality of life like clean and aesthetic environment. Despite being criticized for associating environmental concern with post-material societies in the West (Bell, 2009), Inglehart was supported, in part, by Tuna's (1998) and Olofsson and Ohman's (2006). Tuna's study on environmentalism in 18 developed and developing countries showed higher levels of anthropocentric (human oriented) environmentalism among less developed countries compared with higher levels of ecocentric environmentalism among the more developed countries. Olofsson and Ohman (2006) reported more concern about the environment among those with post-materialistic and collective beliefs than those with individual materialistic ones across North America and Scandinavia.

In addition to country, gender has been one of the most salient factors predicting environmental behavior and attitudes. However, literature on the relationship between gender and environmental concern is inconclusive where different studies have yielded different outcomes. For instance, McEvoy (1972), Arbuthnot (1977), and Arcury (1990) contended that men are more active, more knowledgeable, and more concerned about the environment than women. On the other hand, Stern et al., (1993), Zelezny et al., (2000), and Uyeki and Holland (2000) indicated that women are more concerned about the environment than men. In particular, Uyeki and Holland (2000) reported that women are more concerned about the environment, nature, and animals than men. In contrast, Hayes (2001) argued that gender does not influence environmental concern and women "are not more concerned about the environment than men" (657). Finally, Arcury et al., (1987) and Mohai (1991) played down the effect of gender on environmental concern by stating that no definite conclusion can be drawn about its effect on environmental concern.

Furthermore, the literature associates the middle class with environmentalism and environmental concern (Buttel & Flinn, 1978a, 1978b, Buttel, 1987, Van Liere & Dunlap, 1980, Mohai, 1985, Morrison & Dunlap, 1986). According to previous studies, the middle class has expressed strong support for the preservation of the environment and the conservation of natural resources. In addition, the middle class has led the environmental movement in its efforts to preserve wilderness, to conserve natural resources, to raise public awareness about environmental problems, and to lobby policy makers to curb air and water pollution. Yet, the literature is not clear as to whether environmentalism is a middle class value or whether class differences in concerns due to the influence of middle class attributes such as education, income, occupation, and social activism. According to Buttel & Flinn (1978b), the middle class environmental concern might be due to factors like education, income and occupation rather than to class per se. Furthermore, Mohai (1985) argued for an intervening variable, that the link between the middle class and environmental activism is a connection between socioeconomic status and factors of political activism, rather than a link between the middle class and environmental concern. The middle class's environmental activism is believed to be a result of greater access to resources as well as greater sense of personal efficacy. Hence, those with limited access to resources and low confidence in their ability to influence the political system will be discouraged from taking political action regardless of their environmental concerns (Mohai, 1985). Other studies provided interesting results concerning the effect of family income on environmental concern (Arcury, Johnson, & Scollay, 1986, Arcury & Johnson, 1987). Some research indicated higher income people tend to support, fund, and commit to environmental organizations (Mohai & Twright, 1987). Other studies pointed out that financial support might reflect individuals' financial ability to pay dues and fees to environmental organizations more than their concern about the environment (Olsen, Lodewick & Dunlap, 1992).

Finally, literature indicates a positive relationship between educational attainment and environmental concern. Consequently, as the level of education increases, so does environmental concern (Arcury, Johnson & Scollay, 1986, Arcury & Johnson, 1987, Buttel & Flinn, 1974). Educated people are more likely to show higher levels of environmental concern than the less educated. Furthermore, the history of the environmental movement in the United States illustrates the importance of the role played by educated people like college students. Since the 1970's, college students have created popular concern about the environment through their large-scale participation in environmental and ecological debates (Dunlap & Rutherford, 1973, Dunlap, 1975, Bowman, 1977, Blum, 1987).

The Objectives of the Study

This study investigated levels of environmental concern among samples of college students in Bahrain, Jordan, Qatar, and Saudi Arabia (BJQS). In addition, it measured the effect of country, gender, social class, and parents' education on students' levels of environmental concern. However, due to the limitations of the sample, findings of this research was not intended to be generalized to the general public or to all students in the countries under study.

Data and Methods

Data for this research were obtained from the Unit for Community and Environmental Studies (UCES) in the Social Science Research Center at Mississippi State University. The dataset which included 1,282 respondents was extracted from an environmental attitude survey conducted at the University of Bahrain, King Saud University in Saudi Arabia, Mu'tah University in Jordan, and Qatar University.

This sample of students was drawn from social science, humanities, business, and science classes. Depending on individual instructors, students either completed the survey during class time or completed the survey outside the class, returning it to the instructor later. About 86% of the students enrolled in participating classes completed and returned their surveys. In addition, students were given the option of completing either an English or an Arabic version of the survey. Participation in the survey was voluntary. Confidentiality was obtained by asking students not to write their names on the survey.

Finally, it is worth noting that although the four countries under study do not represent all the nations in the Middle East, they provide very diverse samples of college students from a low-income country (Jordan), a middle-income country (Bahrain), an upper middle-income country (Saudi Arabia), and a high-income country (Qatar). In addition, the Survey of Environmental Attitudes in the Middle East was the only available survey that examines levels of concern about the environment in several countries in the Middle East.

Table 1 summarizes the socioeconomic and demographic characteristics of the sample. Although the combined sample was almost evenly split between males and females, the distribution of gender varies from one country to another. Women made up the majority of respondents from Bahrain, Jordan, and Qatar. However, Saudi respondents were all males. The gender-segregated school system in Saudi Arabia made it difficult to gain access to female students. Therefore the finding concerning the effect of gender on environmental concern does not apply to Saudi students. Finally, most respondents were first generation college students with middle class backgrounds.

Table 1 Characteristic of the Sample (in Percent)

Variable	Category	Qatar (n=178)	Bahrain (n=374)	Jordan (n=412)	Saudi Arabia* (n=318)
Gender	Male	40.0	26.7	34.0	100.0
	Female	60.0	73.3	66.0	00.0
Social Class	Working Class	10.1	15.7	20.0	13.2
	Middle Class	75.5	79.9	75.3	58.8
	Upper Class	12.4	4.3	4.6	28.0
Father Education	Less than high school	51.2	44.9	44.1	47.3
	High school	21.5	22.3	29.2	19.9
	College	27.3	32.8	26.7	32.8
Mother Education	Less than high school	62.0	61.3	62.4	84.6
	High school	16.4	21.7	19.7	10.4
	College	21.6	17.0	17.9	5.0

*. Saudi sample includes male students only.

Variables

Dependent Variables

To examine college students' levels of environmental concern in (BJQS), 12 statements that were in line with Dunlap and Jones (2002) definition of environmental concern were selected. Below are the 12 statements. The abbreviation at the end of each item refers to the number of the item in the survey. For example, (Q15 U) refers to item U in question number 15.

1. Live in harmony with nature to survive (Q15 U).
2. Save the environment for future generation (Q15 V).
3. Balance of nature is easily destroyed (Q15T).
4. Economic growth harms the environment (Q15 O).

5. Culture and technology can provide for human needs (Q16 C).
6. Science and technology are alternatives to nature (Q16 D).
7. Humans have the right to modify the natural environment to suit their needs (Q16 X).
8. It is too difficult for me to help the environment (Q15 N).
9. I want to participate to help the environment (Q16 B).
10. I help the environment even if it costs me more money or takes more time (Q15 R).
11. If somebody litters, it bothers me a lot (Q16 J).
12. I use garbage bags for litter when visiting public parks or the open (Q16 H).

Respondents were asked to agree, disagree, or neither to agree nor to disagree with each statement. Originally, the scores of these statements were coded as: (1) agree, (2) neither, and (3) disagree. To make higher scores represent a more favorable attitude toward each statement, the scores of the 12 statements were inverted into: (3) agree, (2) neither, and (1) disagree.

Table 2 Rotated Factor Matrix.

	Factor 1	Factor 2	Factor 3
"Too difficult for me to help the environment" (Q15N)	-.702	-.063	.331
"I want to participate to help the environment" (Q16B)	.644	.172	.012
"I help the environment even if it cost me more" (Q15R)	.638	.042	-.311
"Litter bothers me a lot" (Q16J)	.535	.429	.048
"Live in harmony with nature to survive" (Q15U)	.043	.726	.184
"Save the environment for future generation" (Q15V)	.093	.637	.060
"Balance of nature easily destroyed" (Q15T)	.081	.620	-.102
"Use garbage bags for litter when visiting the open" (Q16H)	.444	.501	.156
"Culture and technology can provide for human needs" (Q16C)	.290	.311	.609
"Science and technology are alternative to nature" (Q16D)	.426	.230	.609
"Humans have the right to modify nature" (Q16X)	-.113	.097	.578
"Economic growth harms the environment" (Q15O)	.032	.134	-.490

Table 2 presents the results of exploratory factor analysis with principal component and varimax rotation. Exploratory factor analysis was undertaken to reduce the 12 statements to a smaller set that fits together. The 12 statements were reduced to three factors: Coexist with nature, master nature, and environmental efficacy factor. Environmental efficacy factor loaded high on Q15N (-.702), Q16B (.644), Q15R (.638), and Q16J (.535). Coexist with nature factor loaded high on Q15U (.726), Q15V (.637), Q15T (.620) and Q16 H (.501). Master nature factor loaded high on Q16C (.609), Q16D (.609), and Q16X (.578).

Analysis of reliability was undertaken for all the statements in three factors that loaded above (.50), with one constraint that any statement that reduced the alpha reliability coefficient lower than (0.50) was deleted. Consequently, the environmental efficacy scale (alpha=0.572) included: Q15N "It is too difficult for me to help the environment"; Q16B "I want to participate to help the environment"; Q15R "I help the environment even if it costs me more"; and Q16 J "litters bothers me a lot". The coexist with nature scale (alpha = 0.541) included (Q15 U): "Live in harmony with nature to survive"; (Q15 V) "Save the environment for future generation"; Q15T "Balance of nature is easily destroyed"; and Q16H "Use garbage bags for litter when visiting the open". In addition, the master nature scale (alpha=.539) included: Q16 C "Culture and technology can provide for human need"; Q16 D "Science and technology are alternatives to nature"; and Q16 X "Humans have the right to modify the nature to suit their needs".

Since the environmental efficacy, coexist with nature, and master nature scales ranged differently, comparisons between and among them were difficult. To make them comparable, each scale was standardized to range from: (1) the lowest point to (3) the highest point on the scale. For example, the environmental efficacy scale was constructed from Q15N, Q15R, Q16B, and Q16J. Summing the four items created a scale that ranges from (4) the lowest point to (12) the highest point. To make this scale ranges from 1-3, the scale was recomputed by averaging among statements [Environmental efficacy= (q15n + q16b + q15r + q16j) / 4]. As a result, the range of this scale changed from its original 4-12 to a new 1-3 range. The same procedure was followed to construct the coexist with nature and

master nature scales. Finally, the three constructed scales, meaning, the coexist with nature, master nature, and environmental efficacy were used as the dependent variables for this study.

Independent Variables

To examine the effect of demographic, socioeconomic and regional factors on college students' environmental concern, a set of dummy variables were developed.

1. Gender. Female was coded (1) and male, the reference group, was coded (0).
2. Social class. Two dummy variables were developed for social class: (a) Upper class was coded (1) and working class, the reference group, was coded (0). (b) Middle class was coded (1) and working class, the reference group, was coded (0).
3. Father's education. College educated father was coded (1) and father with no college education was coded (0).
4. Mother's education. College educated mother was coded (1) and mother with no college education was coded (0).
5. Country. Three dummy variables were developed for country: (a) Bahrain was coded (1) and Jordan, the reference group, was coded (0); (b) Saudi Arabia was coded (1) and Jordan, the reference group was coded (0); and (c) Qatar was coded (1) and Jordan, the reference group, was coded (0). Jordan was used as the reference group because Saudi Arabia, Bahrain, and Qatar are located in the Arabian Peninsula. Jordan is located outside the Arabian Peninsula. In addition, Saudi Arabia, Bahrain, and Qatar are major oil producer countries; Jordan is not. In addition, Saudi Arabia, Bahrain, and Qatar share a more conservative culture. In contrast, Jordan society is relatively more liberal, open, and free.

Dummy variables are represented by J-1 rule of thumb in which (J) refers to the number of categories in each of the given variables. Each dummy variable is scored 1, if the attribute is present, and 0, if the attribute is not present. The group that scored 0 on all J-1 dummy variables represents the reference group. The unstandardized regression coefficients associated with the J-1 dummy variables indicate the difference in predicted means for the group scored 1 and the group that scored 0 (i.e., the reference group) after controlling for the effects of other independent variables in the regression equation (cf., Lewis-Beck, 1980, Fox, 1992).

Data Analysis and Tools

Descriptive analysis was utilized to reveal means, ranges, and standard deviations for respondents' environmental concern. An ordinary least square (OLS) analysis was employed to examine the effect of gender, social class, family income, parents' education, and country on respondents' environmental concern in BJQS. In general, OLS examines the relationship between the independent and dependent variables. It also provides information on whether the two variables are related and how much change in the value of the dependent variable is due to change in the independent variable controlling the effect of other independent variables in the regression model (Vogt, 1999, Singleton, Straits & Straits, 1993).

To diagnose the potential for multicollinearity among the independent variables, collinearity statistics such as tolerance and variance inflation factor (VIF) were used. Tolerance is "the proportion of variability of that variable that is not explained by its linear relationships with the other independent variables in the model" (Norusis, 2005: 269). In addition, "tolerance is 1 minus the R^2 for each independent variable" (Paul, D. A., 1999: 141). The VIF is defined as $1/\text{tolerance}$ (Paul, D. A., 1999). According to Paul (1999), if any of the tolerances are less than .40 and any of VIFs are larger than 2.50, multicollinearity may be a problem. Since none of the tolerances of the regression models for this study scored less than .40, and none of the VIFs scored more than 2.50, multicollinearity does not appear to present a problem in this analysis.

Results

Table 3 contains means, ranges, standard deviations, and alpha reliability for measures of respondents' environmental concerns. According to Table 3, respondents strongly supported the idea of coexisting with nature (Mean= 2.749). This support may indicate high levels of concern about preserving, living in harmony, and saving the environment for future generations.

Table 3 Measures of Attitudes toward the Environment

Scale	Range	Mean	S.D	Alpha
Coexist with nature	1-3	2.749	.354	.524
Master Nature	1-3	1.638	.550	.539
Environmental efficacy	1-3	2.337	.338	.572

Respondents also revealed moderate support for environmental efficacy (Mean=2.337). They indicated the willingness to help, protect, and make sacrifices for the environment. On the other hand, respondents revealed low support for the master nature argument (Mean= 1.638). Respondents were less enthusiastic about trading the natural environment for immediate human gain. Consequently, claims like 'culture and technology can provide for human needs' and 'humans have the right to modify nature to suit their needs' did not resonate very well with the respondents.

To examine respondents' levels of concern about the environment further, coexist with nature, master nature, and environmental efficacy were regressed on gender, social class, parents' education, and country. Table 4 reports the results of the multivariate analysis of this study. According to Model 1 (Table 4), gender, class, and country significantly influenced respondents' "coexistence with nature" attitudes. In this respect, women supported the notion of coexistence with nature more than their male counterparts ($p < .05$). In addition, the middle class indicated higher inclination toward the coexistence with nature argument than the working class ($p < .01$). Finally, Bahrainis, Qataris, and Saudis indicated lower levels of support for coexistence with nature than Jordanians did.

Table 4 Unstandardized Regression Coefficients for the Effects of Gender, Social Class, Parents' Education, and Country on College Students' Environmental concern.

	Coexist with Nature (M1)	Master Nature (M2)	Environmental Efficacy (M3)
Constant	2.633**	1.661**	2.330**
Gender (Male=0)	.055* (2.003)	.001 (.025)	.051* (2.006)
Upper class (Working Class=0)	.036 (0.784)	-.169* (-2.505)	-.035 (-.796)
Middle class (Working Class=0)	.090** (2.855)	-.170*** (-3.623)	-.004 (-.133)
Father' education (No college=0)	.042 (1.426)	-.052 (-1.182)	.026 (.900)
Mother education (No college=0)	-.036 (-.939)	.033 (.582)	.001 (-.029)
Bahrain (Jordan=0)	-.073* (-2.402)	.067 (1.502)	-.043 (-1.461)
Qatar (Jordan=0)	-.113** (-3.009)	.207*** (3.708)	-.010 (-.266)
Saudi* (Jordan=0)	-.152** (-4.355)	.570*** (10.964)	-.096** (-2.810)
R Squared	.098	.196	.036

*** $P < .001$; ** $P < .01$; * $< .05$

t-test in parentheses

*. Saudi sample includes male respondents only.

In Model 2 (Table 4), the master nature scale was regressed on gender, class, parents' education, and country. According to Model 2, social class, and country significantly influenced respondents' attitudes toward mastering nature. For example, the upper class respondents ($p < .05$) and middle class respondents ($p < .001$) both revealed lower support for master nature than working class persons.

In line with their low coexist with nature attitudes, Qataris and Saudis indicated stronger support for Master nature than Jordanians did ($p < .001$). However, no significant difference was found between Bahrainis and Jordanians. As it is illustrated in Model 3 (Table 4), women showed higher levels of environmental efficacy than men did ($p < .05$). On the other hand, Saudis indicated lower levels of environmental efficacy than Jordanians ($p < .01$). Compared to those from Jordan, Saudis were less willing or less motivated to make sacrifices to help, protect, or conserve the environment.

Discussion and Conclusion

This study investigated levels of concern about the environment among samples of college students in Bahrain, Jordan, Qatar, and Saudi Arabia (BJQS). In addition, it examined the effect of country, gender, social class, and parents' education on levels of concern about the environment. Results of this article indicated high to moderately high levels of concern about the environment among college students in BJQS. In particular, students showed strong support for coexistence with nature. In addition, they revealed elevated feelings of environmental efficacy. On the other hand, respondents strongly opposed the master nature argument. These findings were in line with the literature indicating that young and educated people are more concerned about the environment than the old and the less educated (Harper, 2008).

Moreover, the study underlined the significant effects of gender, social class, and country on respondents' environmental concerns. In particular, the findings were in line with Harper (2008), Zelezny et al., (2000), and Uyeki and Holland (2000). These studies indicated that women are more concerned about the environment than men. Also, the study was in line with the existing literature concerning the relationships between social class and environmental concern (Buttel & Flinn, 1978a, 1978b, Buttel, 1987, Van Liere & Dunlap, 1980, Mohai, 1985, Morrison & Dunlap, 1986). Although the effect of social class on environmental concern is not clear-cut, the middle class continue to show more concern about the environment than their working class counterparts. The difference in environmental concern between the middle class and the working class might be due, in part, to the fact that working class people are more concerned about Maslow's lower level needs for food and shelter than higher level concerns about nature and the preservation of the environment (Sutton, 2007). Consequently, until working class and low income groups feel economically stable and financially secure, their attention may not turn to issues of quality of life (Sutton, 2007).

In line with Dunlap and associates, (1993), this research revealed high to moderately high levels of support for the environment. However, this support was shaped by respondents' country (Tuna, 1998). For example, Bahrainis, Qataris, and Saudis showed less concern about the environment than Jordanians. Also, Qataris and Saudis indicated higher anthropocentric concern in comparison to those from Jordan. Furthermore, Saudis revealed lower levels of environmental efficacy than the Jordanians. Higher anthropocentric attitudes among Bahrainis, Qataris, and Saudis might be due, in part, to their natural, social, and economic environment. Compared with those from Jordan, Bahrainis, Qataris, and Saudis live in the Arabian Peninsula, one of the driest, harshest, and most arid deserts in the world. Therefore, controlling the environment is widely seen as a critical survival mechanism. Without control over the environment, it would be difficult for people in the Arabian Peninsula to maintain their current affluent and high consumption lifestyle. In addition, Bahraini, Qatari, and Saudi economies rely heavily on the extraction of natural resources like oil and underground water. Consequently, *over-concern* about the environment and restrictions over the use of natural resources might be viewed as a direct threat to their economic survival and their affluent lifestyles. Finally, and in a significant deviation from the literature, parents' education made no significant effect on respondents' environmental concern. It seems that the environment has yet to become an important topic that occupies a space in children's socialization process in the area of the study.

In conclusion, this article examined levels' of concern about the environment among college students in Bahrain, Jordan, Qatar, and Saudi Arabia (BJQS). In addition, the article investigated the effect of gender, social class, parents' education, and country on students' levels of environmental concern. However, the results were limited to concern in Bahrain, Jordan, Qatar, and Saudi Arabia. Further, the results were limited to samples of college students from Bahrain, Jordan, Qatar, and Saudi Arabia. In addition, Saudi sample was limited to male students only. Therefore, the finding about the effect of gender on environmental concern does not apply to Saudi students. Moreover, this study was limited to selected variables that were believed to have strong effect on environmental concern in the location of the study. Furthermore, despite the significance of the findings of this study, these findings were not intended to be generalized to the general public in Bahrain, Jordan, Qatar, and Saudi Arabia, or to all college students in these countries. Finally, controlling for gender in multiple regressions played down the concern that the absence of females in the Saudi sample was to blame for Saudi's lower level of concern about the environment. Multiple regression models control for gender and consequently this bias did not take place.

Future research is recommended to include more countries like Egypt, Syria, and Lebanon when examining levels of concern about environment in the Middle East. In addition, future research is recommended to investigate levels of concern about the environment for the general public in the Middle East using national representative data as the data become available. Finally, it is very important to train and employ more female researchers to reach women respondents in gender-segregated nations like Saudi Arabia.

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