

## SOCIAL AND ENVIRONMENTAL AWARENESS OF FOREIGN STUDENTS IN NORTH CYPRUS

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### ABSTRACT

*This paper investigates social and environmental awareness of foreign students studying at Near East University in North Cyprus. This study uses contingent valuation technique for the estimation of average willingness to pay for reconstruction project of Nicosia dumping ground. The analysis was based on data collected from 202 foreign students. Analysis reveals that foreign students willingness to pay Nicosia dumping ground reconstruction project mainly determined by their awareness of Nicosia garbage dumping ground project, their strong concern about environmental issues in their home country, students country of origin, their duration in residing country, employment situation and income levels.*

**Keywords:** Survey, Social Awareness, Willingness to Pay, Choice Modeling.

### ÖZET

#### KUZEY KIBRIS'TAKİ YABANCI ÖĞRENCİLERİN SOSYAL DUYARLILIĞI

*Bu araştırma Kuzey Kıbrıs'ta Yakın Doğu Üniversitesinde eğitim gören yabancı öğrencilerin sosyal ve çevresel duyarlılığını sorgulamaktadır. Çalışmada, Lefkoşa Belediye Çöplüğü rekonstrüksiyon projesine katkı yapmak amacı ile ortalama ödeme yapma istekliliğini tahmin etmek için olası değer tekniği kullanılmıştır. Analiz 202 yabancı öğrenciden toplanan verilere dayandırılmıştır. Sonuçlar, Lefkoşa Belediye Çöplüğü rekonstrüksiyon projesine katkı yapma istekliliğinin, söz konusu proje hakkında bilgi sahibi olmak, gelinen ülkede bu konuda çalışmalara destek olmak, öğrencinin geldiği ülke, Kıbrıs'ta bulunulan sürenin uzunluğu, istihdam durumu ve gelir düzeyleri değişkenleri tarafından belirlendiğini göstermektedir.*

**Anahtar Kelimeler:** Anket, Toplumsal Duyarlılık, Ödeme İstekliliği, Seçim Modelleri.

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## **I. Introduction**

It seems fairly easy to assume that, the so-called foreign students studying abroad reside for a quite substantial period of time in that country and –at any given while- become an important part of the residing society and economy. This conjecture put forward a set of rather significant and focal issues and questions, particularly on adjustment, social and environmental awareness, social consciousness, and such.

Social awareness is the state or ability to perceive, to feel, or to be mindful of people, events, or changes in ones' environment or in the society where one lives. It is awareness shared within a community. It can also be defined as to be aware of the problems that a new and different society, where one now lives, gets through on a day-to-day basis.

A student living and studying in a foreign society, on the other hand, can simply become alienated, that is, can shift in a state of mind which is reflected by low degree of integration and a high degree of distance or isolation in social relationships.

Observations indicate that, both adjusted and alienated kinds of foreign students prevail in North Cyprus universities. It can be assumed that each and every situation has personal (family, religion, sentiments, etc.) and, also, societal or shared (country and society or region of origin, culture, ideology, politics, etc.) causes.

Environmental awareness, that is, care for to protect the nature on individual level and to utilize anti-pollution practices, can be accepted as a fundamental component of social awareness. Furthermore, environmental awareness, presumably, is one of the most representative indicators of social awareness.

The research on social and environmental awareness of foreign students studying in North Cyprus is carried on and generated along with the foreign students of the Faculty of Economic and Administrative Sciences (FEAS) of Near East University (NEU). It is assumed that FEAS of NEU can be accepted as a reliable representation of institutions in North Cyprus favored and preferred by foreign students.

Focal point of the research is restoration of Nicosia<sup>1</sup> garbage dumping ground, which, at the moment in time, in Spring of 2013, was in progress. The city of Nicosia, nursed an important garbage dumping ground problem. The dumping ground, for a long time, has been a primary source of critical sanitation and health risks and, it also, bring about discomfort, even embarrassment to the citizens of the city. The location of the open dumping ground, on the other hand, has initiated additional and crucial distress for University since it was positioned next to NEU campus, south of Dikmen village. Nicosia Municipality, in that period, was trying to restructure and modernize the dumping ground. This evidently was an expensive project, and it can be assumed that the Municipality can acquire some additional financial support from the residents of the city.

At that time, a survey questionnaire was put on to a sample of attending 230 foreign students of FEAS and ISS, in order to search and establish their level of familiarity with this rather important societal problem, and their degree of willingness to support the reconstruction project. In other words, aim of the survey was to establish the affiliation of foreign (visiting) students to the community and environment in North Cyprus in general, and their willingness to pay for environmental services, pollution prevention, nature protection, etc. in particular. This research is an effort to approach a social phenomenon through quantifiable evidence. We used contingent valuation technique for the estimation of average willingness to pay for reconstruction project of Nicosia dumping ground.

## II. University Education in North Cyprus

Providing higher education on an international basis is one of the main businesses in North Cyprus. As of 2013-14 academic year, there are eight universities and, a ninth university is set to open next year. Except Eastern Mediterranean University all those are privately owned.

It is estimated that approximately 320 000 people live in North Cyprus (Northern Cyprus: the Turkish Republic of Northern Cyprus (TRNC)).<sup>2</sup> Almost 20

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<sup>1</sup> Turkish, Lefkoşa: Capital city of North Cyprus.

<sup>2</sup> Northern Cyprus's first official census was performed in 1996. The population recorded was 200,587. The 2<sup>nd</sup> census, carried out in 2006, revealed the population of Northern Cyprus to be 265,100. *TRNC General Population and Housing Unit Census 2006*, TRNC State Planning Organization, updated 7 October 2008. In 2010, the International Crisis Group estimated that the total population of Northern Cyprus was 300,000. International Crisis Group (2010). *"CYPRUS:*

% of this population is –undergraduate or graduate level- university students: 62,726 students are enrolled on courses this year.<sup>3</sup> Only 20 % of this pool (12,658 students) is TRNC citizens. In other words 80 % of the total is international. Majority of international students (34,858, 55 % of the total) is from mainland Turkey.

Consequently, every one of four students (25 %, 15,210 students) studying in North Cyprus universities is from “another” country. It is believed that there are students from, more or less, 100 different and non-Turkish speaking countries.<sup>4</sup> Near East University (NEU) is a private international institution of higher education founded in Nicosia in 1988. With over 21,000 students, NEU is the largest university in North Cyprus. 3918 “foreign” students from 68 countries on the other hand, were studying in NEU at that period of time.

**Table 1: Near East University Student Statistics (2013-2014)<sup>5</sup>**

	Undergraduate 2 years		Undergraduate		Masters		Doctorate		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
<b>TRNC</b>	93	88	2840	2525	416	449	187	165	<b>6763</b>
<b>Turkey</b>	275	166	5775	3662	549	208	82	69	<b>10786</b>
<b>3.Country</b>	19	24	1274	1528	549	405	84	35	<b>3918</b>
<b>Total</b>	369	278	9889	7715	1514	1062	353	269	<b>21467</b>

Faculty of Economic and Administrative Sciences, with a total number of 1230 undergraduate students, is one of the bigger faculties of NEU. FEAS, also represents a very high ratio of foreign (926 foreign students) to total students.<sup>6</sup>

*BRIDGING THE PROPERTY DIVIDE". International Crisis Group.* p. 2. Also, a (disputed?) census performed in December 2011 counting the population (citizens?) at 294,906.

<sup>3</sup> The figures are provided by Higher Education and Foreign Relations department of the Turkish Cypriot education ministry (November, 2013).

<sup>4</sup> *ibid.*

<sup>5</sup> Provided by NEU administration.

<sup>6</sup> **Origin and number of foreign students studying in NEU:** 1.Afghanistan–2; 2.Albania–2; 3.Angola–1; 4.Australia–2; 5.Azerbaijan–266; 6.Bahreyn–1; 7.Bangladesh–16; 8.Belarus–3; 9.Brasil–2; 10.Bulgaria–13; 11.Cameroon–87; 12.Canada–6; 13.China–2; 14.Comoro–37; 15.Congo–4; 16.Djibouti–1; 17.Egypt–5; 18.Equatorial Guinea–8; 19.Etiopia –1; 20.France–2; 21.Gagauzia–6; 22.Ghana–4; 23.Germany–10; 24.Great Britain–21; 25.Greece –1; 26.Holland–5; 27.Hungary– 1; 28.India–12; 29.Iran–126; 30.Iraq–143; 31.Ireland–2; 32.Israel–3; 33.Jordan–82;

FEAS at the same time, houses Institute for Social Sciences (ISS) which provide graduate education in social sciences to a total of 311 students including 125 foreign students.

Although, FEAS and ISS seat foreign students from a diverse set of a large number of countries, amount of students from certain countries carry a considerable weight in the total number, like Nigeria, Azerbaijan or Pakistan and Palestine. Therefore, for the sake of analysis, it is decided on that this total can be grouped in three factions: students from i) African countries, ii) Middle East (including Pakistan, Bangladesh, Afghanistan and India), iii) East Europe (including all countries outside Africa and Middle East).

### III. Data and Descriptive Results

This study uses contingent valuation technique for the estimation of average willingness to pay for reconstruction project of Nicosia dumping ground. Each foreign student received a survey and information about the purpose of the study. Of 230 surveys 212 were completed, 10 were deemed unusable (due to non-response to certain questions). To reduce the hypothetical bias, which is inherent in contingent valuation survey mechanism, a “cheap talk” section that reminds respondents about the importance of truthfulness in their answers was included.

In this survey, respondents were first asked if they would be willing to pay 5TL per month for reconstruction project of Nicosia dumping ground. If the response to initial bid was “yes” the same respondent was then presented with a higher bid. At the end an open ended question is asked about the maximum amount the respondent is willing to pay. Four different bids (0, 5TL, 10TL and 20TL) were used in this study. For those who said “no” to the participation question, they were asked to give reasons why they were not willing to pay anything.

Table 2 shows the range of possible willingness to pay categories and distribution of responses for all and country of origin groups. For the first bid 55

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34. Kazakhstan-4; 35. Kenya-2; 36. Kyrgyzstan -4; 37. Kuwait-2; 38. Libya-53; 39. Lebanon-50; 40. Moldova-43; 41. Morocco-2; 42. Nepal-1; 43. Nigeria-570; 44. Pakistan-707; 45. The Philippines-2; 46. Palestine-196; 47. Romania-5; 48. Russia-55; 49. Saudi Arabia-1; 50. Somalia-28; 51. Srilanka-1; 52. Sudan-32; 53. Switzerland-1; 54. Syria-241; 55. Tajikistan-4; 56. Tanzania-1; 57. Tatarstan-7; 58. Turkmenistan-97; 59. United Arab Emirates-8; 60. Uganda-4; 61. Ukraine-8; 62. USA-13; 63. Uzbekistan-2; 64. Venezuela-1; 65. Yemen-2; 66. Zambia-5.

percent of all respondents were willing to pay for reconstruction project of the dumping ground. In terms of country of origin African students' willingness to pay is slightly higher than Northern European and Middle Eastern students. For the second bid 28 percent of the respondents were willing to pay and Northern European students are leading with 39 percent. For the highest bid only 15 percent of the respondents were willing to pay again Eastern European students are leading with 20 percent.

**Table 2: Willingness to Pay**

	ALL		NORTHERN EUROPE		AFRICA		MIDDLE-EAST	
	N=202	%	N=54	%	N=103	%	N=45	%
Willing to pay 5 TL	112	0.55	28	0.52	61	0.59	23	0.51
Willing to pay 10 TL	57	0.28	21	0.39	27	0.26	9	0.20
willing to pay 20 TL	31	0.15	11	0.20	15	0.15	5	0.11
Willing to pay >20TL	1	0.00	1	0.02	0	0.00	0	0.00
nothing	90	0.45	26	0.48	42	0.41	22	0.49

We also asked the respondents why they are not willing to pay for the project (Table 2). Survey result revealed that 39 percent of all the respondents believe that government should pay for the project. In terms of country of origin of the respondents, Northern European students are leading with 50 percent. Second and third important reasons for not willing to pay are lack of income, and not being citizen of the country respectively.

**Table 3: Willingness not to Pay**

	ALL		NORTHERN EUROPE		AFRICA		MIDDLE-EAST	
	N=90	%	N=26	%	N=42	%	N=22	%
Not citizen	20	0.22	4	0.15	11	0.26	5	0.23
Should be paid by gov.	35	0.39	13	0.50	15	0.36	7	0.32
Users	0	0.00	0	0.00	0	0.00	0	0.00
No problem	4	0.04	2	0.08	2	0.05	0	0.00
No income	23	0.26	6	0.23	11	0.26	6	0.27
Other	9	0.09	1	0.04	3	0.07	4	0.18

Table 4, disclose that 55 percent of the respondents were aware of problems and developments related to Nicosia garbage dumping ground. Students of Northern

Europe group, on the other hand, seem to follow local media (TV, radio, and newspapers) more closely than the constituents of other two groups.

Degree of concern about general environmental issues is similar and noticeably high in all three groups of foreign students. Active participation and support to environmental issues in home countries can also be recognized as quite high-level.

A higher number of respondents live in university dormitories (student houses) in the campus. A significantly high percentage of foreign students, on the other hand, reside in the city at rented houses. Sharing a rented lodging is evidently habitual, most likely due to excessive rental fees. It can, conversely be perceived that students from different countries share the same quarters easily.

Even though a sizeable number of students seek -mainly part-time- work, employment percentage among the respondents is low. University, however, provide some part-time employment (at the libraries, laboratories, studios, etc.) to a certain number of students.

<b>Table 4: Awareness and Profile of Respondents</b>									
	<b>ALL</b>		<b>NORTHERN EUROPE</b>		<b>AFRICA</b>		<b>MIDDLE-EAST</b>		
	N=202	%	N=54	%	N=103	%	N=45	%	
<b>a) Awareness of Lefkoşa dumping ground and source of knowledge</b>									
Aware of Lefkoşa gar.	111	0.55	26	0.48	58	0.56	27	0.60	
i) Learned from mass media	24	0.22	12	0.46	8	0.14	4	0.15	
ii) Learned from friends	87	0.78	14	0.54	50	0.86	23	0.58	
<b>b) Degree of concern about environmental issues</b>									
Concern env(123)	65	0.32	17	0.31	28	0.27	20	0.44	
Concern env(4567)	58	0.29	20	0.37	21	0.20	17	0.38	
Concern env(8910)	79	0.39	17	0.31	54	0.52	8	0.18	
Average actual num	5.35		5.48		6.29		4.20		
<b>c) Active membership of environmental organization and give financial support to those org at home country</b>									
Active member	79	0.39	16	0.30	42	0.41	20	0.44	
Provide fin. Supp	78	0.39	24	0.44	44	0.43	25	0.56	

<b>d) Demographic Profiles of Respondents</b>									
Male		150	0.74	33	0.61	80	0.78	37	0.82
Female		52	0.26	21	0.39	23	0.22	8	0.18
Graduate		112	0.55	26	0.48	63	0.61	23	0.51
Undergrad		90	0.45	28	0.52	40	0.39	22	0.49
Age (average)		22		21		23		22	
Duration (average months)		13		17		10		12	
<b>e) Accommodation</b>									
Live in campus		131	0.65	30	0.56	36	0.35	5	0.11
Live in city		71	0.35	24	0.44	67	0.65	40	0.89
live alone		23	0.11	6	0.25	11	0.16	3	0.08
share		179	0.89	18	0.75	56	0.84	37	0.93
share with countryman		91	0.51	14	0.78	50	0.89	27	0.73
share with others		88	0.49	4	0.22	6	0.11	10	0.27
<b>f) Employment</b>									
Employed in N. Cyprus		29	0.14	14	0.26	11	0.11	4	0.09

A description of variables included in the empirical model is provided in Table 5. All the variables are binary except for the age, duration of stay in the country, number of people lives in residence and income.

<b>Variables</b>	<b>Description</b>	<b>Mean</b>	<b>St. Dev.</b>
WTP	Willingness to pay (1=5TL, 2=10TL, 3=20TL)	0.990099	1.092672
NWTPNC*	1= not citizen of this country, 0 otherwise	0.0990099	0.2994174
NWTPMSP	1=government should pay, 0 otherwise	0.1732673	0.3794185
NWTPUSP*	1=users should pay, 0 otherwise	0	0
NWTPNC*	1=don't have any complaints, 0 otherwise	0.019802	0.1396654
NWTPNI*	1= do not have enough income, 0 otherwise	0.1138614	0.318432
NWTPOR*	1= other reasons, 0 otherwise	0.039604	0.1955114
ALDG	1= aware of the garbage dumping ground, 0 otherwise	0.549505	0.4987794
ALDGM*	1=learned the dumping ground problem from media, 0 otherwise	0.1485149	0.3564931
ALDGF*	1=learned the dumping ground problem from friends 0 otherwise	0.4306931	0.4964035
CAE*	1= concerned about environmental problem, 0 otherwise	5.351485	3.764223



CAEW	1=weak concern about environmental problem (1,2,3), 0 otherwise	0.3217822	0.4683206
CAEM	1=medium concern about environmental problem (4,5,6,7), 0 otherwise	0.2871287	0.4535462
CAES*	1=strong concern about environmental problem (8,9,10), 0 otherwise	0.3910891	0.4892067
AMEO	1=active member of environ. org. in home country, 0 otherwise	0.3880597	0.488525
PFSE	1=give financial support to environ. org. in home country, 0 otherwise	0.460396	0.4996674
GENDER	1= male, 0 otherwise	0.7425743	0.4383021
AGE	age in years of respondent	22.05446	3.394758
EU*	1=country of origin is in Eastern Europe, 0 otherwise	0.2673267	0.4436638
AF	1=country of origin is in Africa, 0 otherwise	0.509901	0.501144
ME	1=country of origin is in Middle East, 0 otherwise	0.2227723	0.4171405
DUR	Duration of stay in Northern Cyprus in months	12.70297	11.18505
EDUC	1=graduate student, 0 otherwise	0.5544554	0.4982606
ACCOM	1=live in city, 0 otherwise	0.6485149	0.4786203
SHARE	1=share accommodation, 0 otherwise	0.8861386	0.318432
SHAREC	1=share with countryman, 0 otherwise	0.6237624	0.4856444
POP	number of people lives in residence	3.049505	1.162227
EMPL	1=employed in Northern Cyprus, 0 otherwise	0.1435644	0.5223209
INC	Monthly income	1438.663	924.4472
* Denotes variable was dropped during estimation			

#### IV. Empirical Methods and Estimation Procedures

Considerable part of the empirical environmental economics concerns the economic benefit of changes in the level of environmental quality such benefits are not marketed and are usually measured using concepts of individual's willingness to pay (see Freeman, 2003). Reconstruction of dumping ground benefit cannot be estimated through market system and thus non market valuation method is required to estimate the willingness to pay (Thamapapillia, 2002). In order to capture individual preferences between current and anticipated new dumping ground and determine factors influencing individual preferences, a discrete choice econometric model has been used (see Hoyos (2010) for survey of the method). In many empirical analyses, including this study, Willingness to pay takes the form of a multiple response variable that has intrinsic order. As a result, ordered qualitative response models must be used. In this case, the WTP model can be written using a latent variable as follows:

$$y^* = X' \beta + \varepsilon,$$

where  $y^*$  is the unobserved willingness to pay,  $X$  is a vector of variables thought to influence willingness to pay,  $\beta$  is a vector of parameters reflecting the relationship between willingness to pay and variables in  $X$  and  $\varepsilon$  is an independently and identically distributed error term with mean zero and variance one.

If an individual's willingness to pay falls within a certain range, his/her willingness to pay is assigned a numerical value that reflects the category in which their unobserved willingness to pay lies.

In particular,

$$y_i = 0 \text{ if } y_i^* \leq \mu_0$$

$$y_i = 1 \text{ if } y_i^* \leq \mu_1$$

$$y_i = 2 \text{ if } y_i^* \leq \mu_2$$

....

$$y_i = J \text{ if } y_i^* \leq \mu_{J-1}$$

where  $y_i$  is the observed counterpart of  $y^*$ . The  $\mu_j$  are unknown threshold parameters that are estimated along with the parameters in the model (Greene, 2000). Threshold parameters represent points at which the change in utility is sufficiently high to merit a respondent being willing to pay more for the reconstruction. In this study  $J$  is equal to 3. The probability of a WTP being in one of  $J$  finite categories can now be written as:

$$\Pr(y = 0) = \phi(-X' \beta)$$

$$\Pr(y = 1) = \phi(\mu_1 - X' \beta) - \phi(-X' \beta)$$

$$\Pr(y = 2) = \phi(\mu_2 - X' \beta) - \phi(\mu_1 - X' \beta)$$

$$\Pr(y = 3) = 1 - \phi(\mu_2 - X' \beta)$$

where  $\phi(\cdot)$  is a cumulative density function (CDF), which measures the probability of WTP being less than the respective threshold level. For the CDF we have two broad choices, the logistic or standard normal density functions, are readily available. If  $\phi(\cdot)$  is the logistic density, the resulting probability model is the ordered logit; if  $\phi(\cdot)$  is the standard normal density, the resulting probability model is the

ordered pro bit. Both of these densities are symmetric, bell shaped curves, although the logistic distribution has heavier tails than the standard normal. Since the distributions are similar, the results derived using the two models will be quite similar. We will use an ordered pro bit model here.

## V. Econometric Results

Table 6 presents parameter estimates and summary statistics of the ordered pro bit model. Since the ordered pro bit model is non-linear, the estimated coefficients are not marginal effects. As such, coefficient estimates and marginal effects are discussed separately. The estimated model has a  $R^2$  of about 0.38 which indicates that explanatory power of the model reasonably well. Wald test result indicates that the null hypothesis of the estimated coefficients are jointly equal to zero is rejected at the one percent level. Of the 17 estimated coefficients, eight are significant. Coefficients of respondent's financial support to social and environmental organization in home county, respondent's country of origin, employment in the residing country dummy and income variables are significant at one percent significance level. Coefficients of awareness of Lefkoşa dumping ground problem dummy variable is significant at five percent significance level.

Respondent's degree of concern about social and environmental issues in the home country dummy variable and duration of stay in residing country variables are significant at about 10 percent significance level. Estimated threshold levels defining the different WTP categories are all significant at the one percent level.

Variables	Coif.	Std. Err.	Z values	P values
ALDG	0.3322**	0.1739	1.91	0.0560
CAEM	0.0089	0.2641	0.03	0.9730
CAES	0.3289*	0.2189	1.5	0.1330
AMEO	0.0065	0.2143	0.03	0.9760
PFSE	0.6952***	0.1800	3.86	0.0000
GENDER	0.0149	0.2102	0.07	0.9430
AGE	0.0114	0.0296	0.38	0.7010
AF	-0.5917***	0.2268	-2.61	0.0090
ME	-0.6637***	0.2734	-2.43	0.0150
EDUC	0.1088	0.2168	0.5	0.6160

DUR	-0.0117*	0.0075	-1.55	0.1200
ACCOM	0.0949	0.1940	0.49	0.6250
SHARE	0.2163	0.4665	0.46	0.6430
SHAREC	0.2318	0.2072	1.12	0.2630
POP	0.0822	0.0941	0.87	0.3820
EMPL	0.5977***	0.1851	3.23	0.0010
INC	0.0018***	0.0003	5.39	0.0000
CUT1	3.2001***	0.7779	4.1138	0.0000
CUT2	4.5920***	0.7757	5.811	0.0000
CUT3	5.6837***	0.7903	7.1918	0.0000
***, ** and * significant at 1%, 5% and 10%				
Number of obs = 202				
Pseudo R <sup>2</sup> = 0.3803				
Wald chi <sup>2</sup> (17) = 117.71				
Prob > chi <sup>2</sup> = 0.0000				
Log pseudolikelihood = -158.47811				

Table 7 shows marginal effects for all explanatory variables. For a particular explanatory variable, the marginal effects across the four WTP categories must sum to zero by definition. The marginal effect in this model is the change in predicted probability based on whether a respondent falls into that category or not. When calculating marginal effects all remaining variables assume their respective average values.

Variables	WTP=0	WTP=1	WTP=2	WTP=3
ALDG	0.0116	0.0301	0.0694	0.0181
CAEM	-0.0031	0.0007	0.0019	0.0005
CAES	-0.1133	0.0227	0.0708	0.0198
AMEO	-0.0023	0.0006	0.0014	0.0004
PFSE	-0.2381	0.0485	0.1465	0.0431
GENDER	-0.0053	0.0013	0.0032	0.0008
AGE	-0.0040	0.0010	0.0024	0.0006
AF	0.2056	-0.0470	-0.1240	-0.0347
ME	0.2479	-0.0994	-0.1217	-0.0269
EDUC	-0.0384	0.0095	0.0230	0.0060
DUR	0.0041	-0.0010	-0.0025	-0.0006
ACCOM	-0.0337	0.0086	0.0199	0.0051

SHARE	-0.0791	0.0255	0.0433	0.0102
SHAREC	-0.0827	0.0223	0.0482	0.0122
POP	-0.0290	0.0070	0.0174	0.0046
EMPL	-0.2106	0.0507	0.1267	0.0332
INC	-0.0006	0.0002	0.0004	0.0001

Awareness of Nicosia dumping ground (ALDG) increases probability of willingness to pay 5TL by 3 percent and 10TL by about 7 percent and 20TL by about 2 percent.

Degree of concern about social and environmental issues in home country (CAEM and CAES) reduces probability of willingness to pay nothing and increases probability of paying for positive contribution to the dumping ground reconstruction project. If the respondent is strongly concerned about the environmental issues probability of providing higher contribution increases significantly (it is important to remember that these changes are relative to respondent who has weak concern about environmental issues at home).

Being a member of social and environmental organizations in the home country dummy variable (AMEO) decreases probability of paying nothing and increases probability of positive contributions however this variable is statistically insignificant.

Providing financial support to social/environmental organization in the home country (PFSE) decreases probability of paying nothing and increases probability of paying first bid by 5 percent and the second bid by 15 percent.

AGE and GENDER variables decrease probability of paying nothing and increases probability of paying positive amount. However these variables are not statistically significant.

County of origin (AF and ME) dummy variables are statistically highly significant. Relative to the Eastern European country of origin, African and Middle Eastern respondents' probability of willingness to pay nothing increases. However their probability of paying initial and medium bid decreases significantly. Specifically, those respondents who come from Middle Eastern countries willingness to pay the initial bid decrease by about 10 percent compare to Eastern European respondents.

Marginal effects for education dummy variable (EDUC) indicate that graduate respondent's willingness to pay nothing decrease and willingness to pay positive contribution increases. Duration of residing county variable (DUR) indicates that respondent resides more in the country his willingness to pay a positive contribution decrease. However these variables are statistically insignificant.

Relative to those who lives in the campus, the marginal effects for those who live in the city dummy variable (ACCOM) is negative for willing to pay nothing and positive for initial and higher bids. Same results are valid for SHARE, SHAREC and POP dummy variables. However these variables are statistically insignificant.

Marginal effects for the employment variable (EMP) indicates that respondents who are employed in the residing country are less likely to be willing to pay nothing, but more willing to pay positive amount, probability of willingness to pay 5TL is 5 percent and 10TL is about 13 percent. Similar pattern emerges with respect to income (INC) variable. Marginal effect for income variable indicates that increase in income reduces probability of willingness to pay nothing and increases probability of willingness to pay 5TL by 2 percent and 10TL by 4 percent. As in almost for all variables probability of willingness to pay the highest bid is less than the second bid for this variable. Both EMP and INC variables are statistically highly significant.

## **VI. Summary and Conclusions**

The survey results show that a little more than half of the students were familiar with the problem of Nicosia garbage dumping ground and degree of willingness to support the restoration project is higher in this group. Similarly, the students who are more engaged with social and environmental issues in their home countries are more inclined to parallel way of thinking and acting in this foreign society.

It is also evident that regional differences, probably different manners of upbringing and education bring about different societal implementations. On the other hand, in many other respects (age, gender, income, country of origin, affiliation with each other, etc.) it is not very easy to detect major dissimilarities among this assortment of people.

Our ordered probit regression results, as mentioned above, indicates that foreign students willingness to pay Nicosia dumping ground reconstruction project mainly determined by their awareness of Nicosia garbage dumping ground project, their strong concern about environmental issues in their home country, students country of origin, their duration in residing country, employment situation and income levels. We included other variables to the model like education, age, gender, accommodation and membership of environmental organization at home country but these variables are not statistically insignificant.

One of the main findings of the research is that relative to the Eastern European country of origin, African and Middle Eastern respondents' probability of willingness to pay the initial bid and medium bid decreases significantly. Specifically, those respondents who come from Middle Eastern countries and African countries willingness to pay the initial bid decrease by about 10 percent and 5 percent compare to Eastern European respondents.

Social and environmental awareness of students in this sample were moderate. To increase further the social and environmental awareness of the students, universities should offer socially and environmentally related courses and to encourage student's cooperation with professional social and environmentalists groups. Creation of awareness of social and environmental issues may be critical to develop interest, which, in turn, may raise actions in the future.

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