



Post-Materialist Waste: A Study of Turkey's Importation of Rubbish

Michael Babula & Glenn Muschert

*Khalifa University of Science and Technology, Abu Dhabi, UAE
Department of Humanities and Social Sciences*

Received: 14 March 2020 ▪ Accepted: 28 May 2020 ▪ Published Online: 20 July 2020

Abstract

Focusing on the case of Turkey's rubbish importation, this article examines the discrepancy between Turkey's importation of foreign rubbish and its national agenda to become a zero-waste society. Drawing upon the sixth (2012) wave of the World Values Survey (WVS) conducted in Turkey, analysis has identified a noted shift in the social values respondents hold, indicating a shift from traditional strong-economy values, known as materialist values, and the emergent environmentally-friendly values, known as post-materialist values. Most of the Turkish population shares concerns for both types of values, while a growing Turkish minority holds post-materialist values. The analysis draws on chi-square tests, which indicate that a shift towards post-materialist values has produced prioritizing environmental concerns over the strength of the economy among this sample. Rather than pursuing a waste-free society due to a rubbish apocalypse, the results indicate that further development in the Turkish economy will facilitate further shifts toward post-materialism, in which context the population would become increasingly positive toward waste refurbishment and other environmental concerns.

Keywords: world values survey, materialist values, post-materialist values, environmentalism, Turkish social values.

Social scientists have a long tradition of studying so-called wicked problems (Churchman, 1967), ones that lack precise definitions, that are not yes/no problems, and that are embedded in other related social problems (see Rittel & Webber, 1973). The issue of how to handle rubbish and other waste is one such problem that has been observed as consumption increases worldwide, and subsequently more waste is generated. Some doomsday scenarios exist that warn of the issue of rubbish soon causing a day of reckoning, such as India's Mt. Everest of Trash (Cassella, 2019) or Singapore's ticking waste time bomb (Hicks, 2019). Even in the academic literature, a waste mountain hides behind the polished veneer of eco-consumerism (de Coverly, McDonagh, O'Malley & Patterson, 2008), and current waste is predicted to increase tenfold (see Jambeck et al., 2015). Moreover, although increased global population should produce increased waste, predictions indicate that the rate of waste produced will continue to rise even faster than the world population (Kaza, Yao, Bhada-Tata & van Woerden, 2018).

In contrast, one simultaneously observes the development of a robust discourse to convert to zero-waste lifestyles (e.g., Kellogg, 2019) that reduce waste to zero by reducing the production of waste or by productively repurposing waste materials. Similarly, a search of "zero

waste” on online shopping sites will reveal, perhaps ironically, a vigorous assemblage of products geared toward consumers who aim to reduce waste. While determining whether or not the coming rubbish apocalypse will take place is beyond the scope of any single study in the sociology of rubbish, the present study examines the cultural trends among Turkish people toward rubbish, including its importation, disposal, and/or reuse. As the following conceptual and empirical discussion will show, Turkey at this point in its history is in a transition from materialist to post-materialist values.

News articles on the Turkish importation of rubbish have recently appeared in important global media outlets (e.g., Laville, 2018), including the issue that rubbish intended for recycling may in fact end up in landfills in Turkey (e.g., Parveen, 2018). In Turkey, however, the issue has hardly been covered. Quite the opposite than highlighting the fact that Turkey imports foreign rubbish, Turkish media have covered how First Lady Ermine Erdoğan has become a public champion of the initiative for Turkey to achieve a zero-waste goal by 2023 (*Daily Sabah*, 2018; *TRT World*, 2019), which will be the centennial of the establishment of the modern Turkish Republic (Ward, 2018). At the same time, however, Turkish importation of waste has increased significantly (Saracoglu & Laville, 2018). Given the push for zero-waste, the increased importation of foreign rubbish into Turkey suggests some discrepancy exists between the zero-waste goals of policy and decision makers with the population that controls the private sector. This article examines this discrepancy, in which the handling of Turkish rubbish is indicative of a contemporary shift from materialist to post-materialist values.

1. Introduction to shifting socio-political environmental values

Data from the World Values Survey (WVS) indicate the majority of the population in Turkey to be of mixed-types, interested in both materialist and post-materialist concerns, although a large minority remains clearly concentrated on materialist concerns. Inglehart (1977), who originally based his paradigm on Maslow’s (1970), needs hierarchy to identify two types of people who are in conflict over economic resources. In Maslow’s paradigm, *materialist* types are concerned primarily with tier-one needs, which consist of the gratification of physical and security needs. Important social issues for materialist types typically include strong police, strong national security/defense, low taxation, and maintaining a strong economy. *Post-materialist* types are those who gratify higher-order needs regarding freedom, self-expression, and quality of life issues that are underpinned by social interests and concerns for self-actualization. Valence social issues among post-materialists tend to include freedom of speech, childcare, healthcare, the environment, and higher education (Inglehart, 1977). The analysis examines key social values toward social and economic life captured in the WVS that demonstrate the concerns of Turkish people and specifically whether they are materialist types concerned with immediate security issues such as maintaining a strong economy and national defense or whether they are post-materialist types who tend toward broader concerns for quality of life and the environment.

Inglehart (1977) further posited that values cross-cut across societies based on economic development and values are passed from one generation to another. A key dynamic is that materialist values tend to correlate with lower levels of economic development and appear among those whose routine concerns fall largely upon their need to pursue subsistence. In comparison, post-materialist values seem to emerge once the physical needs for safety and security are satisfied, particularly among those populations that have achieved a level of material comfort due to economic development and/or the presence of a social welfare system. When presented with a social issue such as rubbish and what to do with it, the two types of values are expected to produce differing points of view and responses. With regards to rubbish as a social concern, materialist types should be concerned with the removal of waste from their immediate living and working environments. If there were a perceived excessive cost associated with the handling of

rubbish and its associated waste, materialists would likely be opposed to bearing such costs, as long as the rubbish was not a problem in their lives and communities. In contrast, post-materialist types should also be interested in repurposing rubbish, aesthetic concerns, and preservation of the environment. Post-materialists are more likely to bear the costs of handling rubbish if it were conducted in the name of recycling or other efforts to preserve the environment.

Jin (2011) stated that waste is the result of increased industrialization; however, this is an oversimplified view. In fact, precisely the opposite appears true in that refinement in waste management practices can lead to a re-purposing of waste materials into quality durable goods, which of course would have positive economic value. Thus, waste also occurs with post-industrial economies, but more importantly than the waste itself is what the society decides to do with their domestic or imported waste. Inglehart (1977) argued that, when economic resources are scarce, people engage in conflict over goods and service that are in short supply. However, what is the creative value of the waste in this exchange, and indeed would it be possible to shift the view of rubbish as waste to rubbish as a potential raw material for durable goods? Thus, rather than seeing an audacious zero-waste policy as a mere starting point, what would happen if waste is viewed differently as a raw material for creative transformation, which ultimately could become a driver of economic growth?

The ultimate post-materialist value that emerges in relation to waste is the push for zero-waste programs, ones in which all produced waste is repurposed as raw materials for future use (Docksai, 2014). Despite the great opportunity that exists for Turkey to repurpose its waste products, the will of the populace to undertake such activity is lacking, as a large portion remains strongly materialist in its values. Policy makers have perhaps moved too far ahead of the population in relation to such shifting socio-political values. However, despite Turkey's significant increases in economic growth from 2004 until 2016, it is now experiencing an economic recession due to increased debt and devaluation of the currency. However, Turkey's growth, while impressive, does not compare to the growth that has taken place in post-industrial economies such as the USA or UK during the 1990s. Turkey remains very much a developing economy where the majority of the population has not experienced significant growth in real wages or reduced income inequality. The economic situation has arguably declined as poverty levels have increased as a result of a significant influx of refugees in recent years. While one may assume that post-materialists and their values may be strongly expressed among governing authorities, a large minority of the population remains as materialist types less concerned with the Turkish import of foreign waste than with promoting a strong economy and workforce.

2. Unexplored potential of creative waste

The sociological literature clearly indicates a creative potential to exist for waste (Pellow & Brehm, 2013; Douglas, 1966). Thompson (2017) identified flexibility in the definitions of value, such that creativity can transform waste into something deemed valuable. While most view waste transient in value, he argued an area of flexibility to exist regarding rubbish in that its lack of value as an item to be thrown away can instead be transformed by creative processes into raw materials that are deemed durable and of value (see discussion in Min'an, 2011). Docksai (2014: 16) paraphrased the World Bank to state that, although humanity will produce three times as much waste at the end of this century, waste is already becoming a "resource – a solution that could also cut global pollution, stave off looming resource crises, and lower manufacturing costs, among other benefits."

In the aftermath of Inglehart's (1977) book titled *The Silent Revolution*, social scientists developed the WVS. This survey indicated that the USA and Europe have continued the onward progress of a post-materialist revolution, and it is exactly these locales that have witnessed effective zero-waste initiatives. For example, the US Army has pursued a 2020 initiative with eight

military installations undertaking programs to reduce their rubbish output to zero (Docksai, 2014). Europe importantly is noted to import more materials than any location on the planet and to throw more away than other continents (Docksai, 2014). However, European countries with the highest levels of post-materialist types have made great strides in repurposing their waste. For example, Norwegians recycle 68% of their rubbish (Docksai, 2014).

The UK, although exporting significant rubbish to Turkey, has also increased repurposing initiatives due to the coalescing off its population’s post-materialist values, gathering the attention of policy makers. Brexit is a recent phenomenon, and the British have mostly enjoyed economic development in tandem with the USA in recent decades, though this has been intermittently disrupted by recession. For example, Toyota PLC introduced reverse osmosis in Derbyshire, UK, which has repurposed 100,000 tons of wastewater to allow boilers and humidity-control systems to work more efficiently at its paint shop (*Professional Engineering*, 2007). Docksai (2014) conceded that, while waste initiatives make for a healthier future, they cost more money. Of course, this may significantly change as nations more aligned with the post-materialist continuum develop methods to make waste repurposing cost-effective and even profitable.

Docksai (2014) referred to the idea that waste repurposing will likely become a necessity as humanity starts to exceed the resource capacity of the planet. We have taken a different view and argue that shifts in values will facilitate increased waste repurposing more than necessity. We posit that post-materialist value-shifts, albeit small, have already taken place in Turkey and are observable based on a decade of growth. This article examines a data set designed to explore shifts in social-value preferences, namely the sixth and most recent wave of the WVS (Inglehart et al., 2014). Because the data collection preceded the 2016 attempted coup and the economic downturn that followed, these data demonstrate, as Abramson and Inglehart (1995) predicted, that values shift away from materialist desires toward post-materialist concerns during favorable economic times. The data demonstrate that necessity, not post-materialist concerns, had long before caused a value shift. Indeed, the value shift, rather than being interpreted as a result of economic woes, preceded the economic challenges of recent years and in fact may set the stage for a continued values shift should the country be able to turn around its current economic woes.

3. Method

This research relies on analysis of the sixth and latest wave of the World Values Survey (WVS) conducted in Turkey in 2012. The WVS is “a global network of social scientists studying changing values and their impact on social and political life, led by an international team of scholars, with the WVS Association and WWSA Secretariat headquartered in Vienna, Austria” (WVS Database, n.d.). The WVS was inspired by Inglehart (1977) and measures four goals on national levels as follows: (a) maintaining order in the nation, (b) fighting rising prices, (c) giving people more say in important government decisions, and (d) protecting freedom of speech. Values (a) and (b) represent materialist goals, while values (c) and (d) represent post-materialist values. Six questions exist which require respondents to rank their values by level of importance, as described in Table 1.

Table 1. Value type rankings by indexed averages (percentages)

	Most Important	Second-Most Important
Materialist values		
High level of economic growth	63.5	20.1
Making sure this country has strong defense forces	20.8	30.4
Maintaining order in the country	42.4	25.5
Fighting rising prices	22.2	28.7
A stable economy	56.5	20.3

The fight against crime	8.6	22.4
Indexed Mean	35.7	24.6
<u>Post-materialist values</u>		
Seeing that people have more say about how things are done at their jobs and in their communities	8.9	29.9
Trying to make our cities and countryside more beautiful	4.6	15.6
Giving people more say in government decisions	23.3	22.1
Protecting freedom of speech	9.6	19.9
Progress toward a less impersonal and more humane society	23.2	28.2
Progress toward a society in which ideas count more than money	9.1	24.7
Indexed Mean	13.1	23.4

Questionnaires for the WVS are administered in person, and respondents address questions in the prescribed order in which they are presented. For each nation, including this Turkish case, WVS questions have been adapted from the master English-language questionnaire and translated into Turkish. The sample has been designed representative of the entire Turkish adult population aged 18 and older. Analysis was conducted on 1,605 useable participant surveys. The sample consists of 51.7% males and 49.3% female; 28% are between 18 and 29 years old, 45.8% between 30 and 49 years old, and 26.2% are 50 years of age or older. In terms of education, 14.4% have no diploma, 52.5% have an elementary school education, 21.7% have a high school education, and 11.4% have a college degree or higher.

4. Results

Inglehart (1977) utilized survey data from 1972 that estimated 24% of Americans to be materialist types and 17% to be post-materialist types, with the remainder being of mixed types. Inglehart (1977) had assumed he would find a large number of mixed types, as people pursuing materialist values would simultaneously show interest in post-materialism as their personal motivational development progressed. Babula (2007) posited the percentages for materialists and post-materialists to respectively be 24% and 52%, drawing upon research that used ratings rather than rankings to identify materialist versus post-materialist types. Babula's data might be slightly more accurate as it resulted in a finer delineation of where Americans fall along the scale. This USA research is useful in drawing a comparison with Turkey.

Table 1 shows the rankings for the values Turkish respondents hold most important and second-most important. The most important ratings indicate the sample to be 35.7% materialist types, 13.1% post-materialist types, and 51.2% mixed types. These percentages shift when participants are asked what their next most important value is. The resulting sample shows 24.6% to be materialist types, 23.4% to be post-materialist types, and 52.0% to be mixed types. The first most-important value rankings are in contrast with the 1972 America data, showing the materialist-type group to be larger than the USA group, whereas the post-materialist group is comparable with the USA at that point in time. Overall, the descriptive data suggest that a large Turkish minority are driven by materialist concerns while the majority is of mixed types with materialists showing interest in post-materialist values. The descriptive data demonstrate that a decade of growth prior to the 2012 survey in Turkey likely had had an impact on shifting values towards post-materialism, given that the majority of the country are classified as mixed types.

Shifting values can be considered in relation to an environmental question that appeared on the WVS. The survey asked, "Here are two statements people sometimes make when discussing the environment and economic growth. Which of these comes closer to your point of view?" Forty-eight percent responded that "protecting the environment should be given priority,

even if it causes slower economic growth and some job loss,” while 44.2% responded “economic growth and creating jobs should be the top priority, even if the environment suffers to some extent.” These descriptive statistics suggest a large number of participants want to protect the environment, and by parity of reasoning, are likely open to other post-materialist ideas, including waste refurbishing even if the costs might run high.

This raises an interesting contradiction because the largest subsection of the sample listed materialism as their first values preferences, and thus we turn to inferential statistics to resolve the dichotomy.

Chi-square analysis has been used to examine if a values shift from materialist to post-materialist values is underway in Turkey. At first, the analysis compared the highest-order priorities of the Turkish sample with their second-order priorities. As each question has four categories, the analysis used the following Bonferroni correction factor: $\alpha = .05/4 \approx .01$ (for the formula, see Field, 2015). Tables 2 and 3 show a significant association to exist between value types and whether participants ranked post-materialist pursuits higher after rendering materialist items as their primary choice for the first set of values ($\chi^2 (9) = 915.34, p < .01$).

Table 2. Crosstabulation for first-ordered values

		Aims of country: second choice				Total	
			A high level of economic growth	Making sure this country has strong defense forces	Seeing that people have more say about how are done at their job	Trying to make our cities and countryside more beautiful	
Aims of country: first choice	A high level of economic growth	Count	0	459	403	148	1010
	Making sure this country has strong defense forces	Count	185	0	66	78	329
	Seeing that people have more say about how are done at their job	Count	92	17	0	25	134
	Trying to make our cities and countryside more beautiful	Count	46	12	11	0	69
Total		Count	323	488	480	251	1542

Table 3. Chi-square tests for first-order values

	Value	df	Asymptotic Significance (2-sided)
Pearson χ^2	915.344	9	.000
Odds Ratio	1,138.822	9	.000
Linear-by-Linear Association	232.604	1	.000
N of Valid Cases	1,542		

Based on the odds ratio, the likelihood of giving higher ranking to post-materialist values as the second-choice item are 1.53 times higher if participants rank materialist items highly as their first-choice item.

Tables 4 and 5 also indicate a significant association to exist between value types and whether participants rank post-materialist pursuits higher after rendering materialist items as their primary choice for the second set of values ($\chi^2 (9) = 763.13, p < .01$).

Table 4. Crosstabulations for second-order values

		Aims of respondent: second choice				Total	
		Maintaining order in the nation	Giving people more say in important government decisions	Fighting rising prices	Protecting freedom of speech		
Aims of respondent: first choice	Maintaining order in the nation	Count	0	258	300	110	668
	Giving people more say in important government decisions	Count	127	0	113	134	374
	Fighting rising prices	Count	216	58	0	75	349
	Protecting freedom of speech	Count	65	38	48	0	151
Total		Count	408	354	461	319	1542

Table 5. Chi-square tests for second-order values

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	763.129	9	.000
Odds Ratio	1,086.818	9	.000
Linear-by-Linear Association	194.266	1	.000
N of Valid Cases	1,542		

Based on the odds ratio, the likelihood of giving higher ranking to post-materialist values as a second-choice item are 2.20 times higher if participants rank materialist items highly as their first-choice item.

Tables 6 and 7 show the same significant association to exist between value types and whether participants rank post-materialist pursuits higher after rendering materialist items as their primary choice for the third set of values ($\chi^2(9) = 766.16, p < .01$).

Table 6. Crosstabulations for the third-order values

		Most important: second choice				Total	
		A stable economy	Progress toward a less impersonal and more humane society	Progress toward a society in which Ideas count more than mon	The fight against crime		
Most important: first choice	A stable economy	Count	0	373	266	258	897
	Progress toward a less impersonal and more humane society	Count	163	0	124	73	360
	Progress toward a society in which Ideas count more than mon	Count	68	48	0	29	145
	The fight against crime	Count	95	31	6	0	132
Total		Count	326	452	396	360	1534

Table 7. Chi-square tests for third-order values

	Value	df	Asymptotic Significance (2-sided)
Pearson χ^2	766.158	9	.000
Likelihood Ratio	1,038.891	9	.000
Linear-by-Linear Association	318.875	1	.000
N of Valid Cases	1,534		

Based on the odds ratio, the odds of giving higher ranking to post-materialist values as the second-choice item are 6.36 times higher if participants rank materialist items highly as their first-choice item. Table 8 demonstrates that there are significant associations for first and third sets of values. Specifically, participants who selected post-materialist values are significantly more likely to favor the environment compared with materialist types who are significantly more likely to favor the economy. No significant association were observed for the second set of values.

Table 8. Chi-square and odds ratio for values and whether participants favor the environment or economy

Question Set		Chi-Square Statistic (χ^2)	Degrees of freedom (df)	Odds of post-materialist types favoring the environment than materialist types favoring the economy
First set of values	Aims of the country first choice	25.32**	6	1.19
	Aims of the country second choice	18.33**	6	1.35
Second set of values	Aims of the country first choice	9.07	6	-
	Aims of the country second choice	13.94	6	-
Third set of values	Aims of the country first choice	32.56**	6	1.21
	Aims of the country second choice	51.60**	6	2.10

Notes. **Denotes significance at $p < .01$. Odds ratios have not been calculated for insignificant findings.

The associations observed within the first and third question sets are significant and demonstrate the odds ratios to become noticeably stronger for post-materialist types who favor an environmental agenda, with post-materialist concerns emerging as next most important objective. The data thus demonstrate a sizeable value shift toward post-materialism to have gone underway during the last wave of the 2012 WVS data collected in Turkey. One noteworthy element of the sample who rated materialist items as their first choice is that they simultaneously took interest in post-materialist values as their second choice. This shift impacted the participants’ preference towards promoting environmental concerns, even if such activities come at a short-term cost to the economy. Had the economy continued to improve, the population can logically be assumed to

have viewed the major economic factor of waste imports differently and to have seen value in refurbishment as a key factor in cleaning up the environment and promoting economic growth simultaneously.

5. Discussion

Clearly, the Turkish nation has faced significant challenges in recent years. The influx of refugees has added to an already-diverse population, and Turkey shares borders with several conflict zones. In addition, Turkey still has a significant debt crisis, inflation, and the problems associated with a weak currency. The economic downturn that has been observed in Turkey since 2016 is likely producing negative impacts on how Turkish citizens view environmentalism and waste refurbishment. However, the economic downturn may be limited in its impact on sublimating post-materialist values. Inglehart (1977) indicated that parents and older siblings tend to pass down their formative experiences and values to younger generations. Maslow (1970) argued that people gain a sense of functional autonomy and resistance to threats once human needs have been gratified. The economic growth noted in Turkey between 2004 and 2016 seems to have resulted in a value shift from materialism to post-materialism for many Turks, and this shift has had the effect of setting a trend that prioritizes protections for the environment, even if greater short-term economic costs are incurred.

As a result, what will cause Turkey to turn to waste refurbishing is not a matter of material necessity (i.e., a mountain of garbage), as so often predicted in rubbish doomsday scenarios. Rather, future developments in Turkey's economy are more likely to shift mindsets regarding how waste is managed. Undoubtedly, Turkey faces serious challenges, and future economic trends will have a profound impact on how the country treats the environment and waste. Despite current challenges, over a decade of growth in Turkey has clearly produced a shift towards post-materialist values and a noticeable desire among those holding such values to protect the environment. This shift is profound, as an increase in post-materialist types is likely to lead to such attitudes being expressed in the government and industry, some of the voices who ultimately set policy for the country. As decision-makers begin to see production, consumption, waste, and their interrelated phenomena, the potential exists for a shared sense of the creation, disposal, and potential (re)creation of waste in its social context (see Perry, Juhlin & Normark, 2010). The data shows a coalescence of values among the post-materialist subset of the population, albeit a minority, and the current leadership. A crisis point will not necessarily be required for Turkey to change course from deriving value in importing waste for landfills to acquiring value from refurbishing waste. This progression will naturally occur if Turkey takes critical steps toward improving its economy and providing for the material needs of the population.

Acknowledgements

This research did not receive any specific grant from funding agencies in the public commercial, or not-for-profit sectors.

The authors declare no competing interests.

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