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ENVIRONMENTAL ATTITUDES AND DISCOURSES OF COMMUNITY PARTICIPATION IN SOLID WASTE MANAGEMENT

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Abstract: *This study examines the significance of environmental attitude and discourse of people in raising community participation towards SWM. Adopting a mix method, questionnaire survey consisting of 200 households and business communities, In-depth interviews and stake holder's analysis were employed in an urban community Sri Lanka. Ecological problems cannot be clearly understood without resolutely dealing with problems within society. In the more concrete sense, it should be understood in terms of economic, ethnic, cultural, and gender conflicts, among many others. In a way, Waste generation and management are perfectly socially and culturally determined. Socio-cultural and political factors are crucial in environmental behavior because, Attitudes toward SW handling are varying among demographic dissimilarities. The environmental attitude and actions are either socialized through social institutions or socially constructed as discourses within the individual personalities.*

Keywords: Community participation, Solid waste management, Environmental Attitudes, Environmental discourses, Gender and Attitudes

1. INTRODUCTION:

1.1 Solid waste management in urban communities in Sri Lanka:

Recently considerable attention has been focused on the issues relating to environmental pollution and maintaining the quality over it. In particular, solid waste management is identified to be an important part in ensuring the protection of the environment and human health with respect to the rapid increase of waste generation rates among urban communities. Due to accelerated growth of urban population, urbanization, increasing economic activities and lack of proper solid waste management practices it is not uncommon to see that many in the developing countries confound the process of managing the Solid waste management (Karunasena & Amarathunga; 2010). Unarguably, the amount of waste generated by traditional societies was less than industrialized urban societies. As in quantities, Urban areas in Asia produced approximately 760,000 tons of municipal solid waste per day in 1998, which is expected to rise to 1.8 million tons by 2025 (Shukor et al; 2011). So the dilemma of waste determined by how far the community is capable of practicing an appropriate system of solid waste management (Uberoi, 1999). Sri Lanka is found no exception for the solid waste crisis and it is one of the leading socio-environmental and political problems (Mahees, 2018). Typically, the researches on solid waste management cover the wide range of perspectives most in cases technical and economic aspects, whereas this paper based on a study, placed on cultural and community factors that determine community participation in managing Solid waste among urban communities in Sri Lanka.

SWM is one of leading issues among most of developing countries since it requires an integrated approach which includes waste generation, pre-collection and storage, collection, transportation, treatment (incineration, recycling, composting etc), and up to Final disposal (Squires, 2006). The rationale of effective public participation is clearly based on the fact that everyone generates waste and can be affected directly and indirectly if the waste is not well managed. Solid waste (SW) can be hazardous to man and the environment if not appropriately managed (Squires, 2006:2). However, the amount of waste generated by a country is proportional to population and living standards of the people (Wertz, 1976). The current rate of waste collection by the local authorities in Sri Lanka estimated at 2683 tons. It is of 27.2% out of the generation of 7210 tons/day. Meanwhile, the problem of waste disposal is essentially an urban problem which depends on a number of factors such as socioeconomic conditions, public attitudes towards reuse and recycling of waste, and geographical and physical factors. Though the national government has to supply the necessary resources for proper collection and disposal of solid waste, due to lack of resources, solid waste is only collected frequently along main roads. Besides, it is difficult to mobilize community support for a participative waste collection and recycling programme since most of the people feel waste management is a task of government.

1.1.1 Responsible parties of SWM in Sri Lanka:

In order to have effective management of solid waste, it is required to have a clear definition of roles, legal responsibilities, rights and jurisdictions of the concerned governmental bodies and organizations (Visvanathan et al; 2004). In Sri Lanka the responsibility of solid waste management is vested in the ministry of environment, or ministry of Megapolis central environmental authority (CEA) and urban development authority for policy making and planning and local authorities such as Municipal Councils (MC), Urban Councils (UC) and Pradesheeya Sabha (PS) for implementation. Therefore the basic legal framework required for solid waste management is provided under Government, Provincial Council (PC) and Local Authorities (LA) regulations and legislation.

There are environmental effects of improper solid waste handling observable in Sri Lanka. Such as land and surface, water pollution, the spread of air, water, and vector-borne diseases, emission of toxic gases and leachate and odor damage the natural beauty of the spaces and social disparities created among the communities are identified as major effects (Ruzaik 2011). Meanwhile, family members and household income, age, education and knowledge about recycling are some demographic factors, which determine the waste generation (Afroz, 2008, Wijerathna et.al; 2013, Mahees et al; 2011). Therefore, the environmental attitude and discourse are very crucial in determining environmental behavior and collective action of ecological management. This study sheds light on the Socio-demographic factors in attitude formation in Environmental discourse and attitude towards sustainable waste management.

2. MATERIAL AND METHODS:

2.1 Study site and methodology of analysis:

The problem of solid waste disposal is essentially an urban problem which depends on a number of factors such as socioeconomic conditions, public attitudes towards reuse and recycling of waste, and geographical and physical factors. Accordingly, to examine the above problem, a questionnaire survey for households and business community was conducted. The findings of this paper are based on the analyses both qualitative and quantitative data obtained from surveys (n=200; 100 households, 100 business holders), twenty in-depth interviews and non-participant observation and stakeholder analysis conducted at Balangoda Urban Council area of Ratnapura District, Sri Lanka. Comparisons were made between households and business holders of different socioeconomic levels. Mainly, quantitative data was gathered related to basic socio-economic factors in relation to SW handling among the household and business communities.

2.1.1 Sampling method:

The study administrated 200 questionnaires covering households (100) and the business community (100) located in the selected two urban wards. And followed the proportional allocation method in stratified random sampling technique based on their ethnicity and sex. A selected group of people from two urban wards in Balangoda UC namely Thumbagoda and Balangoda town were used as the population. The total population in these two urban wards consisted of 6272 and out of which 5848 they are an urban community. Balangoda Town is the main administrative area of the UC and for the purpose of selecting the business community, it has selected. Balangoda Town ward has 2744 population (Sinhala 1915, Tamil 256, Muslim 478) and selecting out business community 100 business holders proportionally sample has drawn 72, 10 and 18 for selecting Sinhala Tamil and Muslim community-owned business. Thumbagoda consisted of urban, village and state communities which marked the highest population among other wards in BUC. Therefore to select a desired multiethnic household community for the study it has selected. In the population, households are Sinhalese 1406, Tamil 213 and Muslim 73 in the Thumbagoda ward. The selected 100 sizes of the sample is distributed among the Thumbagoda ward as 70, 10 and 20 respectively. According to the University of Moratuwa and UNHabitat ethnic distribution of Balangoda UC population showed that there is a majority of Sinhalese 67 %, Tamils 15% and Muslim 18%. In addition, within the strata randomly selected 50 males and 50 females covering both households and the business community. Twenty in-depth interviews were conducted on the basis of stratified purposive sampling method because, it's needed to cover male, female and multiethnic group. Main elements of the SWM process in this area accounted through non-participant observation the tasks like road swapping, garbage collection, grading garbage and composting have observed.

2.1.2 Stakeholder analysis:

At the initial stage of the data collection process of this study stakeholder inventory has been done with the participation of various stakeholders. Namely civil society leaders, women, officials of a different institution, PHI, work superintended (SWM center), school children, religious leaders, waste collectors, waste buyers e.t.c. Main purposes of this were (1) to make people aware about the study (2) to verify primary and secondary data that are collected from the research field (3) to make the community participation for the study. There were three essential steps in stakeholder analysis: 1) Identifying the key stakeholders and their interests (positive or negative) in the setup 2) Assessing the influence of, the importance of, and level of impact upon each stakeholder; and 3) Identifying how best to engage stakeholders. In case three workshop meetings were conducted. The first meeting was held before the researcher started the data collection process. That meeting basically aimed to make people aware of the study and gather basic information about the field (list of the participants were attached in annex). Where should be the ideal place for the researcher to attend more in the field, what kind of barriers the researcher will have throughout the process and who are the leading characters among the stakeholders were verified very cleanly in the meeting. Also, that facilitated to build the rapport among the main characters of SWM process over the area. The second meeting was done after the data collection, in order to validate collected data through various discussions with responsible parties.

2.1.3 Data analysis:

Data is analyzed using SPSS and Minitab statistical packages utilize to analyze the data gathered from the questionnaire method. Coding and entering the data was the first step, and the researcher identified the relationship between variables and qualitative data analyzed using accepted methods in social sciences. Within the process, qualitative data categorize under similar themes according to the context of qualitative narratives. Subsequently, the researcher found trends, patterns, classifications, connections in order to meet the objectives.

3. RESULTS AND DISCUSSION:

Environmental social psychologists and sociologists have examined a wide range of factors internal to the individual that may stimulate sustainable consumption behaviors, such

as environmental knowledge, awareness, experience, efficacy, and values. Numerous studies have shown that some of these factors are necessary prerequisites for environmentally friendly behavior (Wang, 2017) Consumption is an important economic and social activity. It has grown at an unprecedented pace, reaching $43 trillion US dollars in 2013, accounting for more than 60% of GDP worldwide (World Bank, 2015). Behind this large-scale consumption, massive natural resources are being depleted, local and global environments are being polluted, and the biodiversity of many habitats is in danger. Sustainable consumption is thus proposed as a replacement for traditional consumption patterns that are unequally distributed and result in significant environmental damage (Mawdsly, 2004). "An environmental attitude is defined as a person's general positive or negative feeling toward the natural surroundings of humankind, including air, water, land, wildlife, and the systems existing between the natural environment and human society (Wang, 2017).

3.1.1 Attitudes and community participation:

The concept of environmental attitude is also discussed under themes of environmental concern and discourse. According to Hanningan (2014), 'rhetorical model for environmental discourse' takes the shape of three circles, each of which is located at the tips of a triangle. At the top of the triangle is what they call regulatory discourse – disseminated by powerful institutions that make decisions and set environmental policy. Nature here is treated as a resource. At the bottom right of the triangle is the scientific discourse where nature is regarded as an object of knowledge constructed via the scientific method. Policy-makers routinely ground their decisions here, relying in particular on technical data and expert testimony. Finally, directly opposite this on the bottom left is a poetic discourse that is based on narratives of nature that emphasize its beauty, spirituality and emotional power. Even in the case of solid waste generation or management, these three types of environmental discourses can play a crucial role. If a person is attached to any one of these discourses (regulatory, scientific and poetic) he or she would change his or her behavior positively in terms of favorable solid waste management. When it comes to Sri Lankan urban context, it is the regulatory or legal discourse that controls the improper solid waste discourse more than poetic or scientific discourse.

Most ecological problems that we face today are determined by the intended or unintended consequences of economic, ethnic, political, cultural or gender concerns. For Murray Bookchin (2003), ecological problems cannot be clearly understood without resolutely dealing with problems within society. In the more concrete sense, it should be understood in terms of economic, ethnic, cultural, and gender conflicts, among many others. In that sense, it is difficult to separate ecological problems from social problems or in other words the way human beings deal with each other as social beings are crucial to addressing the ecological crisis. With regard to increasing generation of solid waste caused the number of environmental damage and there is a need for sustainable waste management in order to minimize those issues.

3.1 Environmental awareness Sustainability of Solid waste practices:

Towards sustainable solid waste practices, there are some objectives to achieve in general. 1. Alteration of attitudes of the people 2. Maximize Re-use and recycling 3. Dispose of waste in a controlled manner. 4. Waste services should cover all strata of the society regardless of their income, ethnic group or social status. 5. Ensure more safe & healthy employment 6. Establishment of accountable authorities to control waste management system (private, micro, informal sectors and local government) (Moningka 2000:9) are required to ensure sustainability. To handle solid waste in a sustainable manner an extensive public awareness campaign is required to educate the public and to reduce waste generation mainly at the household level (Ruzaik, 2011).

The environmental awareness of people is very useful in creating environmental consciousness among people and mobilizes them for collective environmental actions. The awareness is socially constructed and the social realities lay the foundation for scientific knowledge base (Mahees, et al., 2011). The social cognitive model of identity also shows how the human behavior results as an interaction of personal factors, behavior and the environment because the interaction between the person and behavior involves the influence of a person's thoughts and actions. According to this of environmental concern, people act pro-environmentally based on a combination of their egoistic, altruistic, and biospheric concerns which reflect varying levels of perceived interconnection between the self and nature. These values explain why people do or do not care about environmental problems. Egoistic concern indicates people may care because they believe such problems directly affect them while if its affect other people it is a social-altruistic concern and in biospheric concern, it affects to nature and ecosystems (Burn, et al., 2012). In the current study, People use different ways to manage and reduce waste. How much it affects their lives and the individual differences on environmental concern in a way decide the level of community participation according to tripartite value-basis theory.

3.1.2 Gender and Environmental identity:

According to identity theory, every individual has his or her own ways of role identities which is attached to themselves as an occupant of social structure. In a way, gender identity is one's role identity where individuals attribute to themselves in the role of male or female (Stets and Biga 2003). Within this identity differences given by cultural backgrounds, women and men stand differently to their environment. The way they respond to the environmental issues attitudes towards the environment, the relationship they keep with the environment becomes different. Previous research in environmental sociology has examined the role of gender as one interacts with the environment and saying there is a high tendency for women to be more concerned about the environment than men (Stets and Biga 2003 Davidson & Freudenberg 1996). Those studies have shown women tend to express high levels of concern for the environment than men. For the reason that, women tend to care more about the health and safety of their families and communities than do men (Stets and Biga 2003). Women

play different role identities in a given society especially their tasks in the domestic set up such as collectors of fuel food and fodder, as consumers, as producers and they as managers of natural resources particularly in the developing countries they become significant (Rodda 1988).

According to Mary Mellor (2003) ideas on the gender dimension of environment claims two links that first indicates women and men stands in a different relationship with their environment while second indicated that their different responses to the environmental issues with respect to the meaning given by their gender identities (Mellor 2006: 12). Because identity theorists assume that people choose behaviors that are similar in meaning to the meanings of their identities. When we relate this understanding into environmental behavior, it is clearly evident gender at any level (micro and macro) simultaneously produced and influence to one's environmental behavior. Some scholars argue that one's environmental attitudes and behaviors may have less to do with being male or female rather it is a matter of the meaning people have attached to masculine and feminine characters of an individual. Masculinity is expected to be more focused, competitive and independent while feminity is highlighting sensitivity and more concern for others. Therefore those meanings attributed through their own gender identities heavily influence one's environment identity the same way as personal identity.

Participation in a recycling program was significantly related to attitudes toward ecology in general, and recycling in particular, but putting it limitations researchers' revealed even when it changes attitudes, will not necessarily change behavior. Individual's behavior is determined by his or her behavioral intention to perform it. This intention is itself determined by the person's attitudes and his subjective norms towards the behavior and also his or her evaluation of the consequences of performing the behavior (Madden, et al., 1992).

3.2. Influence of Socio-demographic factors in attitude formation:

3.2.1 Level of education and environmental attitude:

In a recent study of environmentally responsible consumer behavior, the demographic factor of education appears as a major determining factor of the level of participation of the community into environmental concerns. The correlation between the level of education and concern for the environment is decidedly mixed. While high education has been demonstrated to correlate with pro-environment attitudes, lower education found little correlation between education and environmental concern (Whittaker, et al., 2005). Most environmental problems ultimately have a human cause. In the same way, the solution is possible with the positive involvement of attitudes and behavioral change of the forced community. Accordingly, education is a key tool in influencing and informing those solutions. Lack of environmental knowledge is one of the most barriers to personal engagement with environmental management. Same way it affects the level of participation in solid waste management as one of the major environmental issues at present.

Individual's level of environmental knowledge determines the psychological involvement and feeling of obligation to participate. It was generally revealed that concern for the environment was greater in environmentally responsible respondents who were found to be young, well-educated, of high socioeconomic status, and who resided in urban, rather than rural, areas (Ebreo et al 1999). In the study, the factor education appeared as a significant indicator of measuring public attitude (household level) towards environmental sanitary.

Table 1: Public attitude towards the environment by Education level (Households)

Education level	N	Mean	Std. D	Std. error	Sig. (p=0.05)
Below O/L	25	3.24	1.08	0.24	
Above O/L	45	2.436	0.660	0.098	0.005

Source: Field Data, 2016

The environmental attitude was measured by several variables. Variable of education considered by using two independent groups as above and below by considering the number of years which respondents attend the formal education. Since by using the most appropriate technique of independent two samples t-test was performed. In the sample, the population found an inverse relationship between environmental attitudes and education. Comparing the means among different education categories found that people that are with low education (Below O/L)[1] marked 3.24 of highest mean than that of Above O/L (2.436) which has found significant p-value 0.005. Those who are among low education categories were found having a more positive attitude towards the environment. But their participation is less than educated ones. Reasons are found, though they hold positive attitudes towards their household surrounding they are less aware of the major techniques of solid waste management compared with the well educated category. However, the major problem pertaining to attitudes towards SW handling is their actual behaviors in and towards waste handling do not match with the beliefs and attitudes expressed by those individuals. Therefore it is difficult to come across a clear meaning of their participation.

3.2.2 Theory of Reasoned action:

As the theory of reasoned action implies, their reasoned action has resulted in numerous factors. Participation can be viewed as the community involvement in to manage solid waste as the final behavior of the particular community. In a way, their reasoned action is determined. The intention is seen as a function of one's attitude towards performing a particular act and one's subjective norms and salient information or factual knowledge is a necessary precondition for any attitude (Kaiser, et al., 1999). The community should

[1]The Sri Lankan Ordinary Level (O-level) is a General Certificate of Education (GCE) qualification in Sri Lanka, conducted by the Department of Examinations of the Ministry of Education which is based on the Cambridge University Ordinary Level qualification.

have the prior intention of participating in solid waste handling at the beginning. Therefore attitude includes not just the evaluation of a certain outcome but also the estimation of the likelihood of this outcome. Those who rationally decided to engage in the particular action are expecting the final outcome. In case that can be a material benefit or a positive reward. Managing solid waste can bring economic benefits or any other threat-free environment benefits to the participants. And also, the level of reasoned action is determined by Subjective norms in which social expectations as well as moral principles relevant to the ultimate actions of the individual. In a way participation of the community in the SWM results as with rational benefits where people can receive at the end.

Although, higher environmental awareness was demonstrated by the people with better education qualifications studies have shown it has diverse relationships with environmental attitudes. Research on the role of socio-demographic variables in predicting people's general environmental attitudes and behaviors have not shown a clear pattern of results (Ebreo et al 1999). Among the economically least developed societies education is supposed to be having a positive relationship with the environmental attitude. Mahees (2008), States that several studies found that higher level of education has a positive effect on environmental attitude.

Therefore, the use of socio-demographic variables in understanding environmental behavior and attitudes is problematic, in that even when significant relations are found, socio-demographic variables explain only a small part of the variance in people's behavior and environmental motives (Ebreo, et al., 1999pp110). But, the situation has completely differed among the business holders which mean they have shown a significant positive relationship with education and environmental attitudes. Those who were holding a high level of education has positive environmental attitudes. Reasons are found, business population is coming from relatively higher educational backgrounds and they are legally responsible for paying environmental taxes of the UC if waste is improperly discharged. Therefore it's should not rely on socio-demographic variables as the sole important background of altering conservation behavior (Ebreo, et al., 1999).

3.3. Gender and environmental attitude:

In the sample population women usually tend to hold a positive attitude towards waste handling and, hence they have shown higher participation than do men.

Table 2: Comparison of Environmental attitudes of male and female (household)

Gender	N	Mean	Std. Dev	Std. error	Sig. (p=0.05)
Male	33	2.361	0.831	0.14	
Female	37	2.90	1.01	0.17	0.017

Source: Field Study, 2016

Women often did not worry to spend time in segregating their residential waste cleaning tasks while men see it as a big burden. It would be a time-consuming task where men believe they are always in busy schedules.

3.3.1 Environmental attitude and environmental behavior:

In this way, social structural expectations attached to gender influence on one's behavior and also to the self- a perception they hold in response to one's gender identity. When we relate this understanding into environmental behavior, it is clearly evident gender at any level (micro and macro) simultaneously produced and influence to one's environmental behavior. *"Dengue epidemic is spreading all the area and they announced not to keep tins and other sources where mosquitoes can develop. I'm a government worker and no time to clean our garden every day. but as usually allocated every Saturday to clean the garden and burn garbage if we could not able to hand over it to the vehicle. And I aware my children not to through everywhere yourght cups, and other sources for mosquito grow. Now they know them correctly and they use dustbins to put those not only they at home but at the town or outside as well. Dengue is everywhere we are the one who responsible for our illness. I believe prevention is better than cure. I am always aware of my surrounding. Even I usually talk to my neighbors and inform them to clean theirs as well. Because the mosquito can fly more than 500m (Female, Respondent, Householder, in-depth Interview, October 2016).*

The fear creates in women's mind due to potential health hazards, leads women to participate actively in managing solid waste around her environment. As a main caregiver, this influences women to be more concern of environment in order to secure the future benefits of their children. For Vandana Shiva (1989) "Women naturally think of the next generation". So these responsibilities make women be environmentally friendly than men. Within such background, women are naturally worries and over care about future risks. This can be the reason where women are often more likely than men to become involved in collective actions. However, Some scholars (Stets and Biga, 2003, Cleveland, et al., 2001) argue that one's environmental attitudes and behaviors may have less to do with being male or female rather it is a matter of the meaning people have attached to masculine and feminine characters of the individual. Masculinity is expected to be more focused, competitive and independent while feminity is highlighting sensitivity and more concern for others. Therefore those meanings attributed through their own gender identities heavily influence one's environment identity the same way as personal identity.

Table 3: Comparison of Environmental attitudes of male and female (business)

Gender	N	Mean	Std. Dev	Std. error	Sig. (p=0.05)
Male	28	2.459	0.677	0.13	
Female	45	3.037	0.921	0.14	0.003

Source: Field Data, 2016

At the macro level, gender can be understood as a position in the social structure in which individuals behave according to the expected particular manner while micro-level appears as an identity or the self-meaning that person attributed them to their gender identification. So within the study community, environmental attitudes become significance (p-value is 0.003 at 5% confidence level) among male and female. Women maintain a very close relationship with the environment at their day-to-day life than men and they hold even more environmental awareness than men in the sample population. Measuring their attitudes several questions were asked and in case the majority of women were replied *"Following our own ways of waste management is required when running a business. That will benefit both business and the environment. Customers do not attract to dirty places (Female, Respondent, Businesswoman, in-depth Interview, October 2016).* For an another respondent, *"if we are unable to pay tax fees over improper discharge of SW extra cost added for our business and that will limit our profit (Male, Respondent, Businessman, in-depth Interview, October 2016).* Rather seeing handling their own waste men only look at the amount they had to pay if they cannot properly work on. So this example has shown women and men's attitude towards SW handling is different.

3.4. Ethnicity and environmental attitude:

There are differences in the environmental attitudes and beliefs of different segments of the public. According to class, gender or age this can be varied (Buttel, 1987). In a broader context, the ethnicity of a person influences his or her environmental attitude in a different manner depending on other socio-demographic factors.

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3.4.1 Cultural Influence on attitude formation:

According to Morrissery and Manning (2000), there is a close relationship between race and ethnicity with environmental attitude. In a way, cultural ecology represented a significant innovation to emphasize the relationship between culture and the environment conceptualizes. It shows how specific cultures are related to their local environments. Cultural ecology created a concept of an integrated system where cultural and environmental features interact. Though in the sample, Muslims community hold more awareness of policies which respect to waste regulation they tend to have shown fewer participation. They believe SWM as a task of local authorities than to individual family responsibility. *"It is good if we can segregate waste at our home, but then what for we are paying charges. There are labors who get salaries, and who is responsible for doing those, as we are in a busy schedule that is not a task need to be done by ourselves If we are paying the tax they must responsible for our waste (Male, Respondent, Householder, in-depth Interview, October 2016).* In that way Ethnicity effects an individual's neighborhood arrangement, consumption patterns, eating habits, group enjoyment, and socio-cultural functions and all other social relationships. Many studies about black and white differences in environmental concern founded that race to be a significant predictor of attitude towards environmental issues.

Households who belong to Tamil ethnicity have shown a comparatively high level of participation second to Sinhalese. Purity is always strongly attached to one's culture. The culture they belong guides the danger behind being impure and how merits can receive by being pure with day to day life. Religious ideologies can influence people who belong to different ethnicities. Religious affiliations were highly correlated with their concerns for environmental protection. *"If our home is not clean the gods won't visit our places and accept our worships. We should keep our home and the garden clean and clear, every night my final duty is to clean the dirty dishes in the kitchen if not when the god come" (Female, Respondent, Householder, in-depth Interview, October 2016).* The social cognitive model of identity shows how the human behavior results as an interaction of personal factors, behavior and the environment because the interaction between the person and behavior involves the influence of a person's thoughts and actions. All these factors determine by the culture the individual belong. Cultural practices are determined by ethnicity.

Table 4: Attitudes and Environmental consciousness by ethnicity (households)

Ethnicity	N	Mean	Std. Dev	Std. error	Sig. (p=0.05)
Sinhala	45	3.49	1.43	0.21	
Other Ethnicities	25	2.72	1.22	0.24	0.021

Source: Field Study, 2016

Attitudes can be considered as a key component in influencing social behavior relating to one's self or one's identity. One's self-attitudes can lead to environmental behavior and finally to determine his or her identity. The social cognitive model of identity shows how the human behavior results as an interaction of personal factors, behavior and the environment because the interaction between the person and behavior involves the influence of a person's thoughts and actions. All these factors determine by the culture the individual belong. It decides the ethnicity. Studies found that Members of poor or minority populations have many pressing days to day basic material needs to be met and therefore less time and money available to devote to "luxuries," such as esoteric concerns over environmental protection. Therefore, the poorer segments of the population would be less concerned than the richer elements of society about environmental protection (Whittaker et al 2005:436). In the sense, the subcultural distinction is another strong determinant of this participation. Therefore, being environmentally responsive or non- responsive in behavior is a matter of individuals attitudes towards the environment and it's varying among their level of consciousness has upon the environment and its different socio-cultural dynamics.

5. CONCLUSION:

The issue of solid waste generation and management are perfectly social and cultural more than mere engineering or

technical. The sustainable solution to the solid waste crisis directly depends on the individual attitude and behavior of people. When the individual concern and action in terms of solid waste management become collective consciousness and corporate behavior it can be known as community participation. In addition to individual environmental attitude and action, the environmental discourse which is largely determined by macro-level socio-economic, cultural and political factors is crucial in deciding the environmental behavior. The collective sentiments and social bond towards the common environmental wellbeing always empower the favorable community participation to minimize the solid waste crisis. There could be a higher degree of collective sentiments among poor, less educated and socially marginalized people. It is also important to mention that the positive environmental attitude and actions in terms of solid waste management are mainly influenced by external socio-economic and cultural factors more than the internal psychological dynamics. According to this study the socio-cultural factors such as education level, gender and ethnicity have positively influenced the attitude towards solid waste management. It is crucial to note that lower education level, women and Sinhalese have got more environmental concern compared to other opposite categories. These are not just demographic or biological entities, as mentioned in the literature, they are well deep-rooted within the clear sociological factors. The environmental attitude and actions are either socialized through social institutions or socially constructed as discourses within the individual personality. Finally, it is important to critically look at the underlining socio-cultural and political factors that generate some socio-demographic determinants of environmental attitude and behavior of people in terms of community participation for sustainable waste management.

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