

to solid waste management and also there is Karadiyana waste processing project in the Kesbewa municipal area.

Correlation analysis and regression analysis were used as analyzing tool of this study. The variables have defined based on the research done by Sankoh et al in 2012. Accordingly, the Ordinary Least Square regression model is used to study the percentage of solid waste generated by household per day (Y) on the household income (x_1), size of the household (x_2), extra land size within the compound of the household (x_3), distance from the center of the city (x_4) and the gender of household head (x_5) (Sankoh et al, 2012). Regression model which used to analysis purposes can be derived as below.

$$Y = \beta_0 + \beta_1x_1 + \beta_2x_2 + \beta_3x_3 + \beta_4x_4 + \beta_5x_5 + U_i$$

Results and Discussion

According to the survey results, average amount of solid waste generated by households is 2.18 kg / day. Table 1 shows the results of the correlation analysis.

Table 1: Correlation coefficients of determinants of solid waste generation

| Y | Coefficient | t value | P value |
|--------------------|-------------|---------|----------|
| <i>Income</i> | 0.912 | 3.71 | 0.001*** |
| <i>Size of H/H</i> | 0.991 | 2.91 | 0.011** |
| <i>Extra land</i> | -0.502 | -2.06 | 0.027** |
| <i>Distance</i> | 0.408 | 0.22 | 0.811 |
| <i>Gender</i> | 0.688 | 1.01 | 0.322 |

Note: *, **, *** represent the significant at 10 %, 5 % and 1 % respectively

As per the Table 1, major socio economic factors which has higher positive relationship with the DSW generation are household income and household size while extra land has higher negative relationship with the DSW generation. Distance from the center of the city and gender of the household are not have any significant relationship on waste generation.

Table 2 shows the results of the regression analysis of the gathered data of this study.