CHAPTER 5 CONCLUSION

The emissions estimations in this research cover a 10 years duration, from 2010 to 2019. Baseline emissions generated from 42,769 tonnes MSW when disposed off at Bukit Tagar Sanitary Landfill will be 8,059 tCO_2e. By converting the organic portion of the MSW into 13,276 tonnes of compost, carbon emissions being released into the atmosphere can be reduced to 132 tCO_2, generating emissions reduction 7,927 tCO_2. The emissions reduction is equivalent to carbon credits, which can be traded just like securities and commodities in the stock exchange market. There are two trading scenarios: regulatory market and voluntary market. Total income generated include sale of carbon credits and compost. The former scenario will generate an income of US$169,428 (RM516,840) with cost incurred US$167,400 (RM510,654), bringing profit of US$2,028 (RM6,186). While in the voluntary market, income generated and cost incurred will be lower, which are US$121,867 (RM371,755) and US$127,400 (RM388,634) respectively, resulting in a loss of US$5,533 (RM16,878).

From this research, composting is an effective option to reduce emissions generated from MSW, as from the results, by 98%. However, the potential of the project activity in global carbon market is relatively low in regulatory market and indicates a negative projection in voluntary market, with benefit cost ratio of 0.012 and -0.043 respectively. Feedstock volume and prices of carbon credits are the key factors to increase the feasibility. To date, post-Kyoto climate treaty has not been established, leaves uncertainties in future carbon market. Nevertheless, climate change is expected to remain as the global concern in next decade. Hence, it can be concluded that the project activity still able to show its potential

provided with financial and technology assistance from developed countries.