

## Abstract

Incineration of solid waste and the release of wastewater into natural water sources are one cause of the accumulation of greenhouse gases in the atmosphere, resulting in inclement weather and global warming. To relieve the problems, all participants must jointly improve the environmental health in accordance with the sanitation principles. The objective of this research project is to study the improvement of the management mechanism of the highland community organizations in alleviating the problems of solid waste and wastewater in accordance with good sanitation principles. Including testing and demonstrating good management systems of waste and household waste for highland society. The research shows that the main mechanisms that contribute to the continuation of environmental operations by community organizations. Consisting of (1) building knowledge and providing knowledge to the village committee (2) Participation of youth, adults and the elderly In analyzing problems, causes, and determining community development goals As well as join, follow up and evaluate (3) The plan must specify the duration Clearly responsible person and duty It is a method that can solve the problem completely under the social landscape and situation in the community. And (4) the community must have a source of budget for investment and operations. The factors that have the most influence on the success in alleviating the problems of solid waste and sewage according to good sanitation principles of the community are age, education, occupation and ethnicity. The results show that the 21-30 year and 31-40 year, education, the variety of occupation, ethnicity and other factors are trend to high understand to good solid waste and waste water management in 28.5, 25, 23, 15.5 and 8 % respectively. The successful communities are Banpakia Maehae Royal Project, Banhuaynamkuen Huaypong Royal Project and Bankopdong Angkhang Agricultural Station. The results of the research also show that the 6-step sanitation methods for waste management include separation, disposal, collection, collection and disposal of waste by type Including landfill in the pond / burning in standard stoves and sending the garbage that must be disposed to the relevant department to manage Helps reduce the amount of general waste that needs to be disposed of By the agricultural community There are not many households such as Ban Hat Som Poi, S. Panda, and Ban Huai Makliang, Prof. Huai Pong. In case of good waste management, Banhadsompoi and Banhuaymakreang were to waste disposal in 15.3 and 16 kg/day, respectively. The decrease of CO<sub>2</sub> amount was from 15.9 kgCO<sub>2</sub>e/kg/day to 0.3 kgCO<sub>2</sub>e/kg/day (98 %). In contrast, Banpatang where the chinese community, which is a large tourist destination and most households was not waste separation. There was to waste disposal in 236.14 kg/day. The amount of CO<sub>2</sub> was decrease from 444.09 kgCO<sub>2</sub>e/kg/day to 298.2 kgCO<sub>2</sub>e/kg/day (33 %). There are 7 ways to installation of waste water treatment

before disposal. The 86% of all community was not implemented. Therefore, the total score of assessing level following low carbon community criteria in 3 indicators was of 18-26 from 45 points.

**Keywords:** Waste, Pollution, Environment, Greenhouse gas, Highland

